Catalog of Courses Spring 2007

JCCC Statement of General Education

Graduation Requirements

Associate's Degrees

Transfer Guides
JCCC's transfer programs, ranging from accounting to theater. Credits from JCCC can be transferred to many colleges and universities in the United States.

Credit Career and Certificate Programs
JCCC's credit career and certificate programs, ranging from automotive technology to veterinary technology. JCCC's credit career and certificate programs give you the opportunity to study a specific career and enter the job market directly.

Credit Course Descriptions
Descriptions of the courses offered at JCCC, with additional links to the course outlines.

Continuing Education Certificate Programs
Certificate programs offered through JCCC's continuing education program.

Continuing Education Course Descriptions

Student Handbook
Admissions information, services for students, student code of conduct, and academic policies and procedures.

Faculty and Staff
A list of full-time faculty and administrators.

Accreditation
Johnson County Community College is officially accredited by the North Central Association of Colleges and Schools. In addition, individual programs are accredited by associated professional organizations: Dental Hygiene - American Dental Hygienists Association and American Dental Association; Hospitality Food and Beverage and Chef Apprentice - American Culinary Federation; Fire Service Administration - International Fire Service Accreditation Congress; Mobile Intensive Care Technician - Joint Review Committee on Educational Programs for the EMT-Paramedic; Nursing - Kansas State Board of Nursing and National League for Nursing and National League of Nursing; Paralegal and Legal Nurse Consulting - American Bar Association; Basic Police Academy - University of Kansas; and Respiratory Care - Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon recommendation of the Committee on Accreditation for Respiratory Care; Accounting, Business Office Technology, Business Entrepreneurship, Business Administration and Marketing and Management - Association of Collegiate Business Schools and Programs.
Notice of Nondiscrimination

Johnson County Community College is committed to a policy of nondiscrimination.

Johnson County Community College

Series 400: Personnel

Section 411: Application of Personnel Policies

Johnson County Community College is a place where freedom of expression and civility are encouraged. In valuing diversity, the college recognizes the individual differences based on unique ethnic, cultural, gender and political backgrounds, and the differences represented by staff in age, education and physical ability. In a diverse environment, it becomes the responsibility of each employee to respect these individual differences and to refrain from imposing personal viewpoints on other staff or students.

All personnel policies of the Johnson County Community College shall be applied without regard to a person's race, color, age, sex, religion, marital status, national origin, disability, veteran's status, sexual orientation or other factors which can not be lawfully considered, to the extent specified by applicable federal and state laws.

Date of Adoption:

Revised: 3/2/00, 4/10/06

The administration further extends its commitment to fulfilling and implementing the federal, state and local laws and regulations as specified in Title IX and Section 504 of the Rehabilitation Act and the Americans with Disabilities Act. For assistance in these areas, contact the office of the dean of Student Services, Johnson County Community College, 12345 College Blvd., Overland Park, KS 66210-1299, 913-469-8500, or director, Office of Civil Rights, HHS, Washington, D.C. 20201.

JCCC provides a range of services to allow persons with disabilities to participate in educational programs and activities. If you desire support services, contact the office of Access Services for Students With Disabilities (913) 469-8500, ext. 3521, or TDD (913) 469-3885. The Access Services office is located in the Success Center on the second floor of the Student Center.

JCCC Statement of General Education

General education at Johnson County Community College combines essential thinking skills with knowledge from areas such as the arts, communication, humanities, language, mathematics, natural sciences, and social sciences. It prepares students to become lifelong learners capable of making informed, ethical decisions in an increasingly complex and diverse global community.

Students who pursue a course of study at JCCC will be expected to:

• Access and evaluate information from credible sources.
• Collaborate respectfully with others.
• Communicate effectively through the clear and accurate use of language.
• Demonstrate an understanding of the broad diversity of the human experience.
• Process numeric, symbolic, and graphic information.
• Read, analyze, and synthesize written material.
• Select and apply appropriate problem-solving techniques.
• Use current technology efficiently and responsibly.

Graduation Requirements

One semester prior to your graduation:

Complete an Application for Degree and/or Certificate of Completion Form and turn it in at the
Graduation Application Deadlines:
- June 15 for summer graduation
- October 15 for fall graduation
- February 15 for spring graduation

Requirements for degree or certificate of graduation

- For an associate's degree, 15 credit hours must be earned in residence at JCCC. Advanced standing credit will not count toward satisfying this credit hour requirement.
- For certificates, a student must complete a minimum of 50 percent of the required coursework at JCCC.
- Graduates must have earned both a 2.0 grade point average at JCCC and have a cumulative 2.0 or better on all completed course work.
- Developmental and/or prerequisite courses, required before enrollment in college-level courses, will not count toward fulfilling graduation degree/certificate requirements.
- Students must be enrolled in classes at JCCC during the semester they anticipate completing degree/certificate requirements and wish to graduate.

Rules to determine a student's graduation catalog term

Students are considered continuously enrolled if they complete at least one class during each regular fall and spring semester. If students do not maintain continuous enrollment, they will be required to follow the graduation requirements that are in effect at the time of re-enrollment.

Graduation Verification Process
1. When an Application for Degree and/or Certificate of Completion Form is received in the Records office, an initial verification will be completed to ensure degree and/or certificate requirements will be satisfied.
2. A letter will be sent to the student once the verification is complete. If you do not receive a letter, please contact the Admissions Office to verify your mailing address.
3. A student's degree and/or certificate status will be recorded on a student's permanent transcript once grades have been posted and a final verification is done to ensure that all graduation requirements have been completed.

Graduation Application Deadline Appeal Process
If a student misses the application deadline, a student may submit an Graduation Appeal Form. This form can be picked up in the Success Center, second floor, Student Center, or found online at Records (http://www.jccc.net/home/depts.php/5105).

Associate's Degrees

Associate's Degrees Offered at JCCC

Graduation Requirements
To officially graduate, an application for graduation must be filed in the Records Office by the appropriate deadline.

Associate of Arts
Associate of Science

Associate of Applied Science

(Associate of Science and Associate of Applied Science degrees require a student to choose an academic major. Visit http://www.jccc.net/home/catalog/current/toccareerprograms/careerprograms to view the majors of study available at JCCC.)

Associate of General Studies

Kansas AVS/TC Articulated, A.A.S.

Associate of Arts

The associate of arts degree from JCCC
- is designed for students who plan to transfer to a baccalaureate college or university.
- requires completion of 64 college-level credit hours within specified course distribution areas with a 2.0 or higher GPA.

The 64 hours of credit necessary to complete the associate of arts degree include the following:
- Communications (9 credit hours)
- Humanities (6 credit hours)
  - History is included in the Humanities category
- Social Science and/or Economics (6 credit hours)
- Science and Mathematics (9 credit hours)**

**Must include one course from a lab science and one from mathematics
- Health and/or Physical Education (1 credit)

Note: The associate of arts degree is designed as a transfer curriculum. Students should refer to the transfer program sheets in the Student Success Center.

The following is an example of a first year schedule for an undecided transfer student.
Students interested in a specific major or degree should talk with a JCCC counselor.

First Semester - CR (Credit Hours)

ENGL 121 Composition I 3
Social Science Elective 3
Math/Natural Science Elective 3-5
Humanities Elective 3
General Elective 3
Total Credit Hours 15-17

Second Semester - CR (Credit Hours)

ENGL 122 Composition II 3
Oral Communication Elective 3
Math/Natural Science Elective 3-5
Social Science/Humanities Elective 3
General Elective 3

Total Credit Hours 15-17

An associate of arts program is designed specifically to meet your educational objectives and needs by allowing you to complete general education requirements.

General Education Requirements

Communications - 9 hours

A. English Composition - 6 hours
ENGL 121 Composition I*.................................................3
ENGL 122 Composition II*................................................3
*Prerequisite/Corequisite required

B. Oral Communication - 3 hours
SPD  120 Interpersonal Communication..........................3
SPD  121 Public Speaking.............................................3
SPD  125 Personal Communication.................................3
SPD  180 Intercultural Communication.............................3

Humanities - 6 hours

No more than one course from each of the five areas may count toward the six required hours.

A. Literature/Theatre
ENGL 130 Introduction to Literature*.............................3
ENGL 227 Introduction to Poetry*.....................................3
ENGL 230 Introduction to Fiction*.................................3
ENGL 231 American Prose*............................................3
ENGL 235 Drama as Literature*.....................................3
ENGL 241 British Writers*...........................................3
ENGL 250 World Masterpieces*......................................3
ENGL 254 Masterpieces of the Cinema*...........................3
ENGL 256 American Poetry*........................................3
THEA 120 Introduction to Theater.................................3
*Prerequisite/Corequisite required

B. Foreign Language
FL   178 Intermediate Russian I*....................................3
FL   179 Intermediate Russian II*....................................3
FL   190 Intermediate Japanese I*.................................3
FL   191 Intermediate Japanese II*.................................3
FL   192 Intermediate Chinese I*.................................3
FL   193 Intermediate Chinese II*.................................3
FL   220 Intermediate German I*................................3
FL   221 Intermediate German II*................................3
FL   230 Intermediate Spanish I*....................................3
FL   231 Intermediate Spanish II*.................................3
FL   240 Intermediate French I*......................................3
FL   241 Intermediate French II*.................................3
C. History

HIST 125 Western Civilization: Readings and Discussion I.......3
HIST 126 Western Civilization: Readings and Discussion II.....3
HIST 128 Medieval History......................................3
HIST 129 Early Modern Europe 1500-1789........................3
HIST 130 European History Since 1789............................3
HIST 135 Eastern Civilization......................................3
HIST 137 African American Studies.................................3
HIST 140 U.S. History to 1877.....................................3
HIST 141 U.S. History Since 1877..................................3
HIST 151 World History I: Traditional World....................3
HIST 152 World History II: Modern World.........................3
HIST 160 Modern Russian History..................................3
HIST 162 Modern Latin America....................................3

D. Humanities

ART 180 See ARTH 180 for Art History: Ancient to Renaissance...3
ART 182 Art History: Renaissance to Modern........................3
ART 184 Art History: Twentieth Century............................3
HUM 122 Introduction to Humanities................................3
HUM 145 Introduction to World Humanities I.......................3
HUM 146 Introduction to World Humanities II......................3
HUM 155 Classical Mythology......................................3
HUM 164 Civilization..............................................3
MUS 121 Introduction to Music Listening............................3
MUS 125 Introduction to Jazz Listening.............................3
MUS 126 Introduction to World Music................................3
PHOT 140 History of Photography..................................3
REL 120 Exploring World Religions................................3
REL 125 Religions of the East.....................................3
REL 126 Religions of the West....................................3

E. Philosophy

PHIL 121 Introduction to Philosophy..................................3
PHIL 124 Logic and Critical Thinking................................3
PHIL 143 Ethics......................................................3
PHIL 154 History of Ancient Philosophy..............................3
PHIL 176 Philosophy of Religion...................................3

Social Science/Economics - 6 hours

No more than one course from each of the five areas may count toward the six required hours.

A. Anthropology

ANTH 125 Cultural Anthropology.....................................3
ANTH 126 Physical Anthropology....................................3
ANTH 130 World Cultures............................................3

B. Economics

ECON 132 Survey of Economics.........................................3
ECON 230 Economics I................................................3
ECON 231 Economics II...............................................3

C. Political Science

POL 122 Political Science............................................3
POLS 124 American National Government..........................3
POLS 126 State and Local Government..................................3
POLS 132 Introduction to Comparative Government....................3
POLS 135 International Relations........................................3

D. Psychology
PSYC 121 Applied Psychology...........................................3
PSYC 130 Introduction to Psychology...................................3

E. Sociology
SOC 122 Introduction to Sociology.....................................3
SOC 125 Social Problems................................................3
SOC 131 Marriage and the Family.......................................3

Science and/or Mathematics - 9 hours
Must include at least one course from a lab science and one from mathematics.

A. Life Science
BIOL 122 Principles of Biology..........................................3
BIOL 123 Principles of Biology Lab*....................................1
BIOL 124 Oceanus: Essentials of Oceanography.......................3
BIOL 125 General Botany................................................5
BIOL 127 General Zoology..............................................5
BIOL 130 Environmental Science......................................3
BIOL 131 Environmental Science Lab*................................1
BIOL 140 Human Anatomy...............................................4
BIOL 144 Human Anatomy and Physiology.............................5
BIOL 150 Biology of Organisms*......................................5
BIOL 225 Human Physiology*........................................4
BIOL 230 Microbiology*................................................3
BIOL 231 Microbiology Lab*...........................................2
*Prerequisite/Corequisite required

B. Physical Science
ASTR 120 Fundamentals of Astronomy..................................3
ASTR 122 Astronomy...................................................4
CHEM 120 Chemistry in Society.........................................4
CHEM 122 Principles of Chemistry.......................................5
CHEM 124 General Chemistry I Lecture*..............................4
CHEM 125 General Chemistry I Lab*..................................1
CHEM 131 General Chemistry II Lecture*.............................4
CHEM 132 General Chemistry II Lab*................................1
CHEM 140 Principles of Organic & Biological Chemistry*........5
GEOS 130 General Geology.............................................5
GEOS 140 Physical Geography..........................................3
GEOS 141 Physical Geography Lab*.................................2
GEOS 145 World Regional Geography..................................3
PHYS 130 General Physics I*........................................5
PHYS 131 General Physics II*........................................5
PHYS 220 Engineering Physics I*......................................5
PHYS 211 Engineering Physics II*.....................................5
PSCI 120 Physical Science..............................................4
*Prerequisite/Corequisite required

C. Mathematics
MATH 165 Finite Mathematics*..........................................3
MATH 171 College Algebra*.............................................3
MATH 172 Trigonometry*.................................................3
MATH 173  Precalculus*^............................................5
MATH 175  Discrete Mathematics and its Applications*...........3
MATH 181  Statistics*.............................................3
MATH 225  Mathematics as a Decision Making Tool*...............3
MATH 231  Business and Applied Calculus I*......................3
MATH 232  Business and Applied Calculus II*....................3
MATH 241  Calculus I*.............................................5
MATH 242  Calculus II*............................................5
MATH 243  Calculus III*..........................................5
MATH 244  Differential Equations*..............................3

*Prerequisite/Corequisite required

Note: ^MATH 173 is not available for credit to students who have completed MATH 171 and/or MATH 172.
Students who have credit in MATH 173 will not receive credit for MATH 171 and/or MATH 172.

Health and/or Physical Education - 1 hour

HPER Any Activity Course..........................................1
EMS 121 CPR I - Basic Life Support for Healthcare Provider....1
HMEC 151 Nutrition and Meal Planning..........................3
HPER 192 Wellness for Life.......................................1
HPER 200 First Aid and CPR......................................2
HPER 202 Personal Community Health.........................3
HPER 205 Individual Lifetime Sports..........................2
HPER 240 Lifetime Fitness I....................................1
HPER 255 Introduction to Physical Education..................3

Associate of Science

The associate of science degree from JCCC
  • is designed with an emphasis in a specific career program.
  • requires completion of a minimum of 64 college-level credit hours within specified course distribution areas, including the emphasis of study, with a 2.0 or higher GPA.

The 64 hours of credit necessary to complete the associate of science degree include the following general education requirements plus the courses listed for the specific career program:
  • Communications (9 hours)
  • Humanities (6 hours)
  • Social Science and/or Economics (6 hours)
  • Science and Mathematics (12 hours)
  • Health and/or Physical Education (1 hour)

Specific courses that meet the associate of science degree requirements are:

General Education Requirements

(available for career programs only)

A. Communications - 9 hours

ENGL 121  Composition I*.........................................3
  *Prerequisite/Corequisite required

B. Communications Elective - 6 hours

(two of the following)
**ENGL 122**  Composition II* ........................................3
**ENGL 123**  Technical Writing I* ................................3
**ENGL 140**  Writing for Interactive Media* ..........................3
**BUS 150**  Business Communications* ................................3
**SPD 120**  Interpersonal Communication ..............................3
**SPD 121**  Public Speaking ...........................................3
**SPD 125**  Personal Communication ...................................3
**SPD 180**  Intercultural Communication ...............................3

*Prerequisite/Corequisite required

**Humanities - 6 hours**

Two courses from any of the following categories may count toward the six required hours.

**A. Literature/Theater**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 130</td>
<td>Introduction to Literature*</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 227</td>
<td>Introduction to Poetry*</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 230</td>
<td>Introduction to Fiction*</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 231</td>
<td>American Prose*</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 235</td>
<td>Drama as Literature*</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 241</td>
<td>British Writers*</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 250</td>
<td>World Masterpieces*</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 254</td>
<td>Masterpieces of the Cinema*</td>
<td>3</td>
</tr>
<tr>
<td>THEA 120</td>
<td>Introduction to Theater</td>
<td>3</td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required

**B. Foreign Language**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FL 178</td>
<td>Intermediate Russian I*</td>
<td>3</td>
</tr>
<tr>
<td>FL 179</td>
<td>Intermediate Russian II*</td>
<td>3</td>
</tr>
<tr>
<td>FL 190</td>
<td>Intermediate Japanese I*</td>
<td>3</td>
</tr>
<tr>
<td>FL 191</td>
<td>Intermediate Japanese II*</td>
<td>3</td>
</tr>
<tr>
<td>FL 192</td>
<td>Intermediate Chinese I*</td>
<td>3</td>
</tr>
<tr>
<td>FL 193</td>
<td>Intermediate Chinese II*</td>
<td>3</td>
</tr>
<tr>
<td>FL 220</td>
<td>Intermediate German I*</td>
<td>3</td>
</tr>
<tr>
<td>FL 221</td>
<td>Intermediate German II*</td>
<td>3</td>
</tr>
<tr>
<td>FL 230</td>
<td>Intermediate Spanish I*</td>
<td>3</td>
</tr>
<tr>
<td>FL 231</td>
<td>Intermediate Spanish II*</td>
<td>3</td>
</tr>
<tr>
<td>FL 240</td>
<td>Intermediate French I*</td>
<td>3</td>
</tr>
<tr>
<td>FL 241</td>
<td>Intermediate French II*</td>
<td>3</td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required

**C. History**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 125</td>
<td>Western Civilization: Readings and Discussion I</td>
<td>3</td>
</tr>
<tr>
<td>HIST 126</td>
<td>Western Civilization: Readings and Discussion II</td>
<td>3</td>
</tr>
<tr>
<td>HIST 128</td>
<td>Medieval History................................</td>
<td>3</td>
</tr>
<tr>
<td>HIST 129</td>
<td>Early Modern Europe 1500-1789..................</td>
<td>3</td>
</tr>
<tr>
<td>HIST 130</td>
<td>European History Since 1789...................</td>
<td>3</td>
</tr>
<tr>
<td>HIST 135</td>
<td>Eastern Civilization...........................</td>
<td>3</td>
</tr>
<tr>
<td>HIST 137</td>
<td>African American Studies......................</td>
<td>3</td>
</tr>
<tr>
<td>HIST 140</td>
<td>U.S. History to 1877..........................</td>
<td>3</td>
</tr>
<tr>
<td>HIST 141</td>
<td>U.S. History Since 1877......................</td>
<td>3</td>
</tr>
<tr>
<td>HIST 151</td>
<td>World History I: Traditional World...........</td>
<td>3</td>
</tr>
<tr>
<td>HIST 152</td>
<td>World History II: Modern World................</td>
<td>3</td>
</tr>
<tr>
<td>HIST 160</td>
<td>Modern Russian History.......................</td>
<td>3</td>
</tr>
<tr>
<td>HIST 162</td>
<td>Modern Latin America.........................</td>
<td>3</td>
</tr>
</tbody>
</table>

**D. Humanities**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 180</td>
<td>See ARTH 180 for Art History: Ancient to Renaissan</td>
<td>3</td>
</tr>
<tr>
<td>ART 182</td>
<td>Art History: Renaissance to Modern..................</td>
<td>3</td>
</tr>
</tbody>
</table>
E. Philosophy

PHIL 121 Introduction to Philosophy ..........................3  
PHIL 124 Logic and Critical Thinking ..........................3  
PHIL 143 Ethics ........................................3  
PHIL 154 History of Ancient Philosophy ........................3  
PHIL 176 Philosophy of Religion ............................3  

Social Science/Economics - 6 hours

Two courses from any of the following categories may count toward the six required hours.

A. Anthropology

ANTH 125 Cultural Anthropology ...............................3  
ANTH 126 Physical Anthropology ...............................3  
ANTH 130 World Cultures .......................................3  

B. Economics

ECON 132 Survey of Economics .................................3  
ECON 230 Economics I .......................................3  
ECON 231 Economics II ....................................3  

C. Political Science

POLS 122 Political Science ......................................3  
POLS 124 American National Government ....................3  
POLS 126 State and Local Government .......................3  
POLS 132 Introduction to Comparative Government ..........3  
POLS 135 International Relations .............................3  

D. Psychology

PSYC 121 Applied Psychology ..................................3  
PSYC 130 Introduction to Psychology ........................3  

E. Sociology

SOC 122 Introduction to Sociology ...........................3  
SOC 125 Social Problems .....................................3  
SOC 131 Marriage and the Family ............................3  

Science and Mathematics -12 hours

Must include at least one course in mathematics and at least one in a lab science.
The mathematics requirement will be satisfied by any mathematics course except Fundamentals of Mathematics and Introduction to Algebra.

A. Science

(Life Science)

BIOL 122 Principles of Biology ........................................3
BIOL 123 Principles of Biology Lab*....................................1
BIOL 124 Oceanus: Essentials of Oceanography .....................3
BIOL 125 General Botany..................................................5
BIOL 127 General Zoology..................................................5
BIOL 130 Environmental Science.......................................5
BIOL 131 Environmental Science Lab*..................................1
BIOL 140 Human Anatomy..................................................4
BIOL 144 Human Anatomy and Physiology......................... 0.5
BIOL 150 Biology of Organisms*.........................................5
BIOL 225 Human Physiology*............................................4
BIOL 230 Microbiology*...................................................3
BIOL 231 Microbiology Lab*..............................................2
*Prerequisite/Corequisite required

(Physical Science)

ASTR 120 Fundamentals of Astronomy..................................3
ASTR 122 Astronomy.........................................................4
CHEM 120 Chemistry in Society.........................................4
CHEM 122 Principles of Chemistry.......................................5
CHEM 124 General Chemistry I Lecture*..............................4
CHEM 125 General Chemistry I Lab*....................................1
CHEM 131 General Chemistry II Lecture*..............................4
CHEM 132 General Chemistry II Lab*....................................1
CHEM 140 Principles of Organic & Biological Chemistry*........ 5
GEOS 130 General Geology.................................................5
GEOS 140 Physical Geography...............................................3
GEOS 141 Physical Geography Lab*......................................2
GEOS 145 World Regional Geography...................................3
PHYS 130 General Physics I*.............................................5
PHYS 131 General Physics II*.............................................5
PHYS 220 Engineering Physics I*..........................................5
PHYS 221 Engineering Physics II*........................................5
PSCI 120 Physical Science.................................................4
*Prerequisite/Corequisite required

Any remaining hours for this requirement beyond the one math and one lab science requirement may be satisfied by taking additional courses from the approved math and lab science courses.

Health and/or Physical Education - 1 hour

HPER Any Activity Course...............................................1
EMS 121 CPR I - Basic Life Support for Healthcare Provider.....1
HMEC 151 Nutrition and Meal Planning...............................3
HPER 192 Wellness for Life................................................1
HPER 200 First Aid and CPR.............................................2
HPER 202 Personal Community Health...............................3
HPER 205 Individual Lifetime Sports.................................2
HPER 240 Lifetime Fitness I.............................................1
HPER 255 Introduction to Physical Education.........................3
Associate of Applied Science

The associate of applied science degree from JCCC
- is designed with an emphasis in a specific career program.
- requires completion of a minimum of 64 college-level credit hours within
  specified course distribution areas, including emphasis of study, with a 2.0
  GPA.

The 64 hours of credit necessary to complete the associate of applied science
degree include 15 credits of general education requirements plus the courses
listed for the specific career program. At a minimum, the distribution must include:
- Communications (3 hours)
- Humanities (3 hours)
- Social Science and/or Economics (3 hours)
- Science and Mathematics (3 hours)
- 3 additional credit hours to be selected from one of the above categories
- Health and/or Physical Education (1 hour)

Specific courses that meet the associate of applied science degree requirements
are:

General Education Requirements
(available for career programs only)

A. Communications - 3 hours

ENGL 121 Composition I*........................................3
*Prerequisite/Corequisite required

If your specific degree program requires a communications
elective, choose three hours from the following:

ENGL 122 Composition II*.................................3
ENGL 123 Technical Writing I*...............................3
ENGL 140 Writing for Interactive Media*......................3
BUS 150 Business Communications*..........................3
SPD 120 Interpersonal Communication..........................3
SPD 121 Public Speaking......................................3
SPD 125 Personal Communication...............................3
SPD 180 Intercultural Communication............................3
*Prerequisite/Corequisite required

Humanities - 3 hours

One course from any of the following categories
may count toward the three required hours.

A. Literature/Theater

ENGL 130 Introduction to Literature*.........................3
ENGL 227 Introduction to Poetry*...........................3
ENGL 230 Introduction to Fiction*..........................3
ENGL 231 American Prose*..................................3
ENGL 235 Drama as Literature*..............................3
ENGL 241 British Writers*..................................3
ENGL 250 World Masterpieces*...............................3
ENGL 254 Masterpieces of the Cinema*.......................3
ENGL 256 American Poetry*................................3
THEA 120 Introduction to Theater.............................3
## B. Foreign Language

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FL 178</td>
<td>Intermediate Russian I*</td>
<td>3</td>
</tr>
<tr>
<td>FL 179</td>
<td>Intermediate Russian II*</td>
<td>3</td>
</tr>
<tr>
<td>FL 190</td>
<td>Intermediate Japanese I*</td>
<td>3</td>
</tr>
<tr>
<td>FL 191</td>
<td>Intermediate Japanese II*</td>
<td>3</td>
</tr>
<tr>
<td>FL 192</td>
<td>Intermediate Chinese I*</td>
<td>3</td>
</tr>
<tr>
<td>FL 193</td>
<td>Intermediate Chinese II*</td>
<td>3</td>
</tr>
<tr>
<td>FL 220</td>
<td>Intermediate German I*</td>
<td>3</td>
</tr>
<tr>
<td>FL 221</td>
<td>Intermediate German II*</td>
<td>3</td>
</tr>
<tr>
<td>FL 230</td>
<td>Intermediate Spanish I*</td>
<td>3</td>
</tr>
<tr>
<td>FL 231</td>
<td>Intermediate Spanish II*</td>
<td>3</td>
</tr>
<tr>
<td>FL 240</td>
<td>Intermediate French I*</td>
<td>3</td>
</tr>
<tr>
<td>FL 241</td>
<td>Intermediate French II*</td>
<td>3</td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required

## C. History

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 125</td>
<td>Western Civilization: Readings and Discussion I</td>
<td>3</td>
</tr>
<tr>
<td>HIST 126</td>
<td>Western Civilization: Readings and Discussion II</td>
<td>3</td>
</tr>
<tr>
<td>HIST 128</td>
<td>Medieval History</td>
<td>3</td>
</tr>
<tr>
<td>HIST 129</td>
<td>Early Modern Europe 1500-1789.</td>
<td>3</td>
</tr>
<tr>
<td>HIST 130</td>
<td>European History Since 1789.</td>
<td>3</td>
</tr>
<tr>
<td>HIST 135</td>
<td>Eastern Civilization</td>
<td>3</td>
</tr>
<tr>
<td>HIST 137</td>
<td>African American Studies</td>
<td>3</td>
</tr>
<tr>
<td>HIST 140</td>
<td>U.S. History to 1877</td>
<td>3</td>
</tr>
<tr>
<td>HIST 141</td>
<td>U.S. History Since 1877</td>
<td>3</td>
</tr>
<tr>
<td>HIST 151</td>
<td>World History I: Traditional World</td>
<td>3</td>
</tr>
<tr>
<td>HIST 152</td>
<td>World History II: Modern World</td>
<td>3</td>
</tr>
<tr>
<td>HIST 160</td>
<td>Modern Russian History</td>
<td>3</td>
</tr>
<tr>
<td>HIST 162</td>
<td>Modern Latin America</td>
<td>3</td>
</tr>
</tbody>
</table>

## D. Humanities

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 180</td>
<td>See ARTH 180 for Art History: Ancient to Renaissance</td>
<td>3</td>
</tr>
<tr>
<td>ART 182</td>
<td>Art History: Renaissance to Modern</td>
<td>3</td>
</tr>
<tr>
<td>ART 184</td>
<td>Art History: Twentieth Century</td>
<td>3</td>
</tr>
<tr>
<td>HUM 122</td>
<td>Introduction to Humanities</td>
<td>3</td>
</tr>
<tr>
<td>HUM 145</td>
<td>Introduction to World Humanities I</td>
<td>3</td>
</tr>
<tr>
<td>HUM 146</td>
<td>Introduction to World Humanities II</td>
<td>3</td>
</tr>
<tr>
<td>HUM 155</td>
<td>Classical Mythology</td>
<td>3</td>
</tr>
<tr>
<td>HUM 164</td>
<td>Civilization</td>
<td>3</td>
</tr>
<tr>
<td>MUS 121</td>
<td>Introduction to Music Listening</td>
<td>3</td>
</tr>
<tr>
<td>MUS 125</td>
<td>Introduction to Jazz Listening</td>
<td>3</td>
</tr>
<tr>
<td>MUS 126</td>
<td>Introduction to World Music</td>
<td>3</td>
</tr>
<tr>
<td>PHOT 140</td>
<td>History of Photography</td>
<td>3</td>
</tr>
<tr>
<td>REL 120</td>
<td>Exploring World Religions</td>
<td>3</td>
</tr>
<tr>
<td>REL 125</td>
<td>Religions of the East</td>
<td>3</td>
</tr>
<tr>
<td>REL 126</td>
<td>Religions of the West</td>
<td>3</td>
</tr>
</tbody>
</table>

## E. Philosophy

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 121</td>
<td>Introduction to Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 124</td>
<td>Logic and Critical Thinking</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 143</td>
<td>Ethics</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 154</td>
<td>History of Ancient Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 176</td>
<td>Philosophy of Religion</td>
<td>3</td>
</tr>
</tbody>
</table>

## Social Science/Economics - 3 hours

One course from any of the following categories may count toward the three required hours.
### A. Anthropology

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 125</td>
<td>Cultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 126</td>
<td>Physical Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 130</td>
<td>World Cultures</td>
<td>3</td>
</tr>
</tbody>
</table>

### B. Economics

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 132</td>
<td>Survey of Economics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 230</td>
<td>Economics I</td>
<td>3</td>
</tr>
<tr>
<td>ECON 231</td>
<td>Economics II</td>
<td>3</td>
</tr>
</tbody>
</table>

### C. Political Science

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLS 122</td>
<td>Political Science</td>
<td>3</td>
</tr>
<tr>
<td>POLS 124</td>
<td>American National Government</td>
<td>3</td>
</tr>
<tr>
<td>POLS 126</td>
<td>State and Local Government</td>
<td>3</td>
</tr>
<tr>
<td>POLS 132</td>
<td>Introduction to Comparative Government</td>
<td>3</td>
</tr>
<tr>
<td>POLS 135</td>
<td>International Relations</td>
<td>3</td>
</tr>
</tbody>
</table>

### D. Psychology

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 121</td>
<td>Applied Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 130</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

### E. Sociology

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 122</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 125</td>
<td>Social Problems</td>
<td>3</td>
</tr>
<tr>
<td>SOC 131</td>
<td>Marriage and the Family</td>
<td>3</td>
</tr>
</tbody>
</table>

### Science and/or Mathematics - 3 hours

Any mathematics course except Fundamentals of Mathematics or Introduction to Algebra will satisfy this requirement, or the requirement can be satisfied by any of the following courses.

### A. Life Science

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 122</td>
<td>Principles of Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 123</td>
<td>Principles of Biology Lab*</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 124</td>
<td>Oceanus: Essentials of Oceanography</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 125</td>
<td>General Botany</td>
<td>5</td>
</tr>
<tr>
<td>BIOL 127</td>
<td>General Zoology</td>
<td>5</td>
</tr>
<tr>
<td>BIOL 130</td>
<td>Environmental Science</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 131</td>
<td>Environmental Science Lab*</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 140</td>
<td>Human Anatomy</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 144</td>
<td>Human Anatomy and Physiology</td>
<td>5</td>
</tr>
<tr>
<td>BIOL 150</td>
<td>Biology of Organisms*</td>
<td>5</td>
</tr>
<tr>
<td>BIOL 225</td>
<td>Human Physiology*</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 230</td>
<td>Microbiology*</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 231</td>
<td>Microbiology Lab*</td>
<td>2</td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required

### B. Physical Science

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTR 120</td>
<td>Fundamentals of Astronomy</td>
<td>3</td>
</tr>
<tr>
<td>ASTR 122</td>
<td>Astronomy</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 122</td>
<td>Principles of Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 122</td>
<td>Principles of Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 124</td>
<td>General Chemistry I Lecture*</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 125</td>
<td>General Chemistry I Lab*</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 131</td>
<td>General Chemistry II Lecture*</td>
<td>4</td>
</tr>
</tbody>
</table>
### Health and/or Physical Education - 1 hour

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPER</td>
<td>Any Activity Course</td>
<td>1</td>
</tr>
<tr>
<td>EMS 121</td>
<td>CPR I - Basic Life Support for Healthcare Provider</td>
<td>1</td>
</tr>
<tr>
<td>HMEC 151</td>
<td>Nutrition and Meal Planning</td>
<td>3</td>
</tr>
<tr>
<td>HPER 192</td>
<td>Wellness for Life</td>
<td>1</td>
</tr>
<tr>
<td>HPER 200</td>
<td>First Aid and CPR</td>
<td>2</td>
</tr>
<tr>
<td>HPER 202</td>
<td>Personal Community Health</td>
<td>3</td>
</tr>
<tr>
<td>HPER 205</td>
<td>Individual Lifetme Sports</td>
<td>2</td>
</tr>
<tr>
<td>HPER 240</td>
<td>Lifetime Fitness I</td>
<td>1</td>
</tr>
<tr>
<td>HPER 255</td>
<td>Introduction to Physical Education</td>
<td>3</td>
</tr>
</tbody>
</table>

### Associate of General Studies

The associate of general studies degree from JCCC

- is designed for students who do not plan to transfer to a traditional baccalaureate institution, but wish to receive recognition for completion of a more general program of study
- requires completion of 64 college-level credit hours within specified course distribution areas with a 2.0 or higher GPA.

### General Education Requirements

The 64 hours of credit necessary to complete the associate of general studies degree include the following:

- General Education Requirements (26 credit hours)
- Computer Skills (3 credit hours)
- Global Issues/Diversity (3 credit hours)
- College level electives (32 credit hours)

This distribution was designed around JCCC's General Education Learning Outcomes institutional assessment process. At a minimum, the distribution must include:

- The Arts........3 hours
- Communication Skills.......6 hours
- Culture and Ethics.....6 hours
- Health, Physical Education, Recreation....2 hours
- Mathematics......3 hours
- Modes of Inquiry......6 hours
- Computer Skills.............3 hours
Courses may not be used to satisfy requirements in more than one category.

### The Arts - 3 hours

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 180</td>
<td>See ARTH 180 for Art History: Ancient to Renaissance</td>
<td>3</td>
</tr>
<tr>
<td>ART 182</td>
<td>Art History: Renaissance to Modern</td>
<td>3</td>
</tr>
<tr>
<td>ART 184</td>
<td>Art History: Twentieth Century</td>
<td>3</td>
</tr>
<tr>
<td>FL 178</td>
<td>Intermediate Russian I*</td>
<td>3</td>
</tr>
<tr>
<td>FL 179</td>
<td>Intermediate Russian II*</td>
<td>3</td>
</tr>
<tr>
<td>FL 190</td>
<td>Intermediate Japanese I*</td>
<td>3</td>
</tr>
<tr>
<td>FL 191</td>
<td>Intermediate Japanese II*</td>
<td>3</td>
</tr>
<tr>
<td>FL 192</td>
<td>Intermediate Chinese I*</td>
<td>3</td>
</tr>
<tr>
<td>FL 193</td>
<td>Intermediate Chinese II*</td>
<td>3</td>
</tr>
<tr>
<td>FL 220</td>
<td>Intermediate German I*</td>
<td>3</td>
</tr>
<tr>
<td>FL 221</td>
<td>Intermediate German II*</td>
<td>3</td>
</tr>
<tr>
<td>FL 230</td>
<td>Intermediate Spanish I*</td>
<td>3</td>
</tr>
<tr>
<td>FL 231</td>
<td>Intermediate Spanish II*</td>
<td>3</td>
</tr>
<tr>
<td>FL 240</td>
<td>Intermediate French I*</td>
<td>3</td>
</tr>
<tr>
<td>FL 241</td>
<td>Intermediate French II*</td>
<td>3</td>
</tr>
<tr>
<td>HUM 122</td>
<td>Introduction to Humanities</td>
<td>3</td>
</tr>
<tr>
<td>HUM 145</td>
<td>Introduction to World Humanities I</td>
<td>3</td>
</tr>
<tr>
<td>HUM 146</td>
<td>Introduction to World Humanities II</td>
<td>3</td>
</tr>
<tr>
<td>HUM 155</td>
<td>Classical Mythology</td>
<td>3</td>
</tr>
<tr>
<td>HUM 164</td>
<td>Civilization</td>
<td>3</td>
</tr>
<tr>
<td>MUS 121</td>
<td>Introduction to Music Listening</td>
<td>3</td>
</tr>
<tr>
<td>MUS 125</td>
<td>Introduction to Jazz Listening</td>
<td>3</td>
</tr>
<tr>
<td>MUS 126</td>
<td>Introduction to World Music</td>
<td>3</td>
</tr>
<tr>
<td>PHOT 140</td>
<td>History of Photography</td>
<td>3</td>
</tr>
<tr>
<td>THEA 120</td>
<td>Introduction to Theater</td>
<td>3</td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required

### Historical Perspective - 3 hours

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 130</td>
<td>Introduction to Literature*</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 230</td>
<td>Introduction to Fiction*</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 231</td>
<td>American Prose*</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 235</td>
<td>Drama as Literature*</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 241</td>
<td>British Writers*</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 250</td>
<td>World Masterpieces*</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 256</td>
<td>American Poetry*</td>
<td>3</td>
</tr>
<tr>
<td>GEOS 130</td>
<td>General Geology</td>
<td>5</td>
</tr>
<tr>
<td>GEOS 140</td>
<td>Physical Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEOS 141</td>
<td>Physical Geography Lab*</td>
<td>2</td>
</tr>
<tr>
<td>HIST 125</td>
<td>Western Civilization: Readings and Discussion I</td>
<td>3</td>
</tr>
<tr>
<td>HIST 126</td>
<td>Western Civilization: Readings and Discussion II</td>
<td>3</td>
</tr>
<tr>
<td>HIST 128</td>
<td>Medieval History</td>
<td>3</td>
</tr>
<tr>
<td>HIST 130</td>
<td>European History Since 1789</td>
<td>3</td>
</tr>
<tr>
<td>HIST 135</td>
<td>Eastern Civilization</td>
<td>3</td>
</tr>
<tr>
<td>HIST 137</td>
<td>African American Studies</td>
<td>3</td>
</tr>
<tr>
<td>HIST 140</td>
<td>U.S. History to 1877</td>
<td>3</td>
</tr>
<tr>
<td>HIST 141</td>
<td>U.S. History Since 1877</td>
<td>3</td>
</tr>
<tr>
<td>HIST 151</td>
<td>World History I: Traditional World</td>
<td>3</td>
</tr>
<tr>
<td>HIST 152</td>
<td>World History II: Modern World</td>
<td>3</td>
</tr>
<tr>
<td>HIST 160</td>
<td>Modern Russian History</td>
<td>3</td>
</tr>
<tr>
<td>HIST 162</td>
<td>Modern Latin America</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 154</td>
<td>History of Ancient Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>POLS 124</td>
<td>American National Government</td>
<td>3</td>
</tr>
<tr>
<td>POLS 126</td>
<td>State and Local Government</td>
<td>3</td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required

### Cultural Perspective - 3 hours

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 125</td>
<td>Cultural Anthropology</td>
<td>3</td>
</tr>
</tbody>
</table>
ANTH 130 World Cultures ........................................ 3
ENGL 130 Introduction to Literature*.......................... 3
ENGL 230 Introduction to Fiction*.............................. 3
ENGL 231 American Prose*..................................... 3
ENGL 235 Drama as Literature*.................................. 3
ENGL 241 British Writers*...................................... 3
ENGL 250 World Masterpieces*.................................. 3
ENGL 254 Masterpieces of the Cinema*.......................... 3
ENGL 256 American Poetry*.................................... 3
FL 178 Intermediate Russian I*.............................. 3
FL 179 Intermediate Russian II*.............................. 3
FL 190 Intermediate Japanese I*............................. 3
FL 191 Intermediate Japanese II*............................. 3
FL 192 Intermediate Chinese I*.................................. 3
FL 193 Intermediate Chinese II*............................ 3
FL 220 Intermediate German I*.................................. 3
FL 221 Intermediate German II*............................. 3
FL 230 Intermediate Spanish I*.............................. 3
FL 231 Intermediate Spanish II*.............................. 3
FL 240 Intermediate French I*............................... 3
FL 241 Intermediate French II*............................... 3
GEOS 145 World Regional Geography............................ 3
PHIL 121 Introduction to Philosophy.......................... 3
PHIL 143 Ethics.................................................. 3
PHIL 154 History of Ancient Philosophy.......................... 3
PHIL 176 Philosophy of Religion................................ 3
POLS 122 Political Science..................................... 3
POLS 124 American National Government...................... 3
POLS 135 International Relations.............................. 3
REL 120 Exploring World Religions............................. 3
REL 125 Religions of the East.................................. 3
SOC 122 Introduction to Sociology............................. 3
SOC 131 Marriage and the Family............................. 3
*Prerequisite/Corequisite required

Computer Skills - 3 hours

CIS 124 Introduction to Computer Concepts and Applications... 3

OR

Three hours from the following courses:

any CPCA* course.............................................. 1
any CWEB* course............................................ 1
any CDTP* course............................................ 1
LIBR 125 Introduction to Library Research.................... 1

OR

MATH 181 Statistics*............................................. 3
*Prerequisite/Corequisite required

Communication Skills - 6 hours

Writing - 3 hours

ENGL 121 Composition I*...................................... 3
*Prerequisite/Corequisite required

Speaking - 3 hours

SPD 120 Interpersonal Communication.......................... 3
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPD 121</td>
<td>Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>SPD 125</td>
<td>Personal Communication</td>
<td>3</td>
</tr>
<tr>
<td>SPD 180</td>
<td>Intercultural Communication</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Global Issues/Diversity - 3 hours</strong></td>
<td></td>
</tr>
<tr>
<td>ADMJ 127</td>
<td>Criminology</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 125</td>
<td>Cultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 130</td>
<td>World Cultures</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 134</td>
<td>Native Americans</td>
<td>3</td>
</tr>
<tr>
<td>ART 186</td>
<td>Art History: Introduction to Asian Art</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 130</td>
<td>Environmental Science</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 131</td>
<td>Environmental Science Lab*</td>
<td>1</td>
</tr>
<tr>
<td>BUS 235</td>
<td>Introduction to International Business</td>
<td>3</td>
</tr>
<tr>
<td>FL 116</td>
<td>Elementary Latin I</td>
<td>3</td>
</tr>
<tr>
<td>FL 117</td>
<td>Elementary Latin II*</td>
<td>3</td>
</tr>
<tr>
<td>FL 120</td>
<td>Elementary German I</td>
<td>5</td>
</tr>
<tr>
<td>FL 121</td>
<td>Elementary German II*</td>
<td>5</td>
</tr>
<tr>
<td>FL 130</td>
<td>Elementary Spanish I</td>
<td>5</td>
</tr>
<tr>
<td>FL 131</td>
<td>Elementary Spanish II*</td>
<td>5</td>
</tr>
<tr>
<td>FL 133</td>
<td>Basic Spanish for Hospitality Management</td>
<td>2</td>
</tr>
<tr>
<td>FL 140</td>
<td>Elementary French I</td>
<td>5</td>
</tr>
<tr>
<td>FL 141</td>
<td>Elementary French II*</td>
<td>5</td>
</tr>
<tr>
<td>FL 150</td>
<td>Elementary Russian I</td>
<td>5</td>
</tr>
<tr>
<td>FL 151</td>
<td>Elementary Russian II*</td>
<td>5</td>
</tr>
<tr>
<td>FL 160</td>
<td>Elementary Italian I</td>
<td>5</td>
</tr>
<tr>
<td>FL 161</td>
<td>Elementary Italian II*</td>
<td>5</td>
</tr>
<tr>
<td>FL 165</td>
<td>Elementary Chinese I</td>
<td>5</td>
</tr>
<tr>
<td>FL 166</td>
<td>Elementary Chinese II*</td>
<td>5</td>
</tr>
<tr>
<td>FL 170</td>
<td>Elementary Japanese I</td>
<td>5</td>
</tr>
<tr>
<td>FL 171</td>
<td>Elementary Japanese II*</td>
<td>5</td>
</tr>
<tr>
<td>FL 175</td>
<td>Elementary Brazilian Portuguese I</td>
<td>5</td>
</tr>
<tr>
<td>FL 176</td>
<td>Elementary Brazilian Portuguese II*</td>
<td>5</td>
</tr>
<tr>
<td>FL 205</td>
<td>Conversational Japanese*</td>
<td>2</td>
</tr>
<tr>
<td>FL 223</td>
<td>Conversational German*</td>
<td>2</td>
</tr>
<tr>
<td>FL 234</td>
<td>Conversational Spanish*</td>
<td>2</td>
</tr>
<tr>
<td>FL 243</td>
<td>Conversational French*</td>
<td>2</td>
</tr>
<tr>
<td>FL 246</td>
<td>Conversational Russian*</td>
<td>2</td>
</tr>
<tr>
<td>HC 125</td>
<td>International Awareness Field Study</td>
<td>2</td>
</tr>
<tr>
<td>HIST 128</td>
<td>Medieval History</td>
<td>3</td>
</tr>
<tr>
<td>HIST 135</td>
<td>Eastern Civilization</td>
<td>3</td>
</tr>
<tr>
<td>HIST 137</td>
<td>African American Studies</td>
<td>3</td>
</tr>
<tr>
<td>HIST 151</td>
<td>World History I: Traditional World</td>
<td>3</td>
</tr>
<tr>
<td>HIST 152</td>
<td>World History II: Modern World</td>
<td>3</td>
</tr>
<tr>
<td>HIST 160</td>
<td>Modern Russian History</td>
<td>3</td>
</tr>
<tr>
<td>HIST 162</td>
<td>Modern Latin America</td>
<td>3</td>
</tr>
<tr>
<td>HUM 137</td>
<td>Introduction to Russian Culture</td>
<td>3</td>
</tr>
<tr>
<td>HUM 145</td>
<td>Introduction to World Humanities I</td>
<td>3</td>
</tr>
<tr>
<td>HUM 146</td>
<td>Introduction to World Humanities II</td>
<td>3</td>
</tr>
<tr>
<td>INTR 145</td>
<td>Introduction to the Deaf Community*</td>
<td>3</td>
</tr>
<tr>
<td>MUS 126</td>
<td>Introduction to World Music</td>
<td>3</td>
</tr>
<tr>
<td>POLS 122</td>
<td>Political Science</td>
<td>3</td>
</tr>
<tr>
<td>POLS 132</td>
<td>Introduction to Comparative Government</td>
<td>3</td>
</tr>
<tr>
<td>POLS 135</td>
<td>International Relations</td>
<td>3</td>
</tr>
<tr>
<td>POLS 200</td>
<td>Model United Nations</td>
<td>3</td>
</tr>
<tr>
<td>RDG 127</td>
<td>College Reading Skills</td>
<td>3</td>
</tr>
<tr>
<td>REL 120</td>
<td>Exploring World Religions</td>
<td>3</td>
</tr>
<tr>
<td>REL 125</td>
<td>Religions of the East</td>
<td>3</td>
</tr>
<tr>
<td>REL 126</td>
<td>Religions of the West</td>
<td>3</td>
</tr>
<tr>
<td>SOC 125</td>
<td>Social Problems</td>
<td>3</td>
</tr>
<tr>
<td>SOC 165</td>
<td>Chinese Society: Past and Present</td>
<td>3</td>
</tr>
<tr>
<td>SOC 200</td>
<td>Intercultural Applications*</td>
<td>3</td>
</tr>
<tr>
<td>SPD 128</td>
<td>Business and Professional Speech</td>
<td>3</td>
</tr>
<tr>
<td>SPD 180</td>
<td>Intercultural Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required
### Modes of Inquiry - 6 hours

#### Scientific - 3 hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 126</td>
<td>Physical Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ASTR 120</td>
<td>Fundamentals of Astronomy</td>
<td>3</td>
</tr>
<tr>
<td>ASTR 122</td>
<td>Astronomy</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 122</td>
<td>Principles of Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 123</td>
<td>Principles of Biology Lab*</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 124</td>
<td>Oceanus: Essentials of Oceanography</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 125</td>
<td>General Botany</td>
<td>5</td>
</tr>
<tr>
<td>BIOL 127</td>
<td>General Zoology</td>
<td>5</td>
</tr>
<tr>
<td>BIOL 130</td>
<td>Environmental Science</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 131</td>
<td>Environmental Science Lab*</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 140</td>
<td>Human Anatomy</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 144</td>
<td>Human Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 150</td>
<td>Biology of Organisms*</td>
<td>5</td>
</tr>
<tr>
<td>BIOL 225</td>
<td>Human Physiology*</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 230</td>
<td>Microbiology*</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 231</td>
<td>Microbiology Lab*</td>
<td>2</td>
</tr>
<tr>
<td>CHEM 120</td>
<td>Chemistry in Society</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 122</td>
<td>Principles of Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 124</td>
<td>General Chemistry I Lecture*</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 125</td>
<td>General Chemistry I Lab*</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 131</td>
<td>General Chemistry II Lecture*</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 132</td>
<td>General Chemistry II Lab*</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 140</td>
<td>Principles of Organic &amp; Biological Chemistry*</td>
<td>5</td>
</tr>
<tr>
<td>GEOS 130</td>
<td>General Geology</td>
<td>5</td>
</tr>
<tr>
<td>GEOS 140</td>
<td>Physical Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEOS 141</td>
<td>Physical Geography Lab*</td>
<td>2</td>
</tr>
<tr>
<td>PHIL 124</td>
<td>Logic and Critical Thinking</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 130</td>
<td>General Physics I*</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 131</td>
<td>General Physics II*</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 220</td>
<td>Engineering Physics I*</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 221</td>
<td>Engineering Physics II*</td>
<td>5</td>
</tr>
<tr>
<td>PSCI 120</td>
<td>Physical Science</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 130</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required

### Social - 3 hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 132</td>
<td>Survey of Economics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 230</td>
<td>Economics I</td>
<td>3</td>
</tr>
<tr>
<td>ECON 231</td>
<td>Economics II</td>
<td>3</td>
</tr>
<tr>
<td>GEOS 145</td>
<td>World Regional Geography</td>
<td>3</td>
</tr>
<tr>
<td>POLS 126</td>
<td>State and Local Government</td>
<td>3</td>
</tr>
<tr>
<td>POLS 132</td>
<td>Introduction to Comparative Government</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 121</td>
<td>Applied Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 130</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 122</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 125</td>
<td>Social Problems</td>
<td>3</td>
</tr>
<tr>
<td>SOC 131</td>
<td>Marriage and the Family</td>
<td>3</td>
</tr>
</tbody>
</table>

### Mathematics - 3 hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 120</td>
<td>Business Math and higher*</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 220</td>
<td>Engineering Physics I*</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 221</td>
<td>Engineering Physics II*</td>
<td>5</td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required

### Health, Physical Education, Recreation - 2 hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPER</td>
<td>Any Activity Course</td>
<td>1</td>
</tr>
<tr>
<td>EMS 121</td>
<td>CPR I - Basic Life Support for Healthcare Provider</td>
<td>1</td>
</tr>
<tr>
<td>HMEC 151</td>
<td>Nutrition and Meal Planning</td>
<td>3</td>
</tr>
<tr>
<td>HPER 192</td>
<td>Wellness for Life</td>
<td>1</td>
</tr>
</tbody>
</table>
Transfer Guides

University Transfer Program for Undecided Students
If you are planning to transfer but have not decided upon a major or chosen a four-year school, you should select courses from the general education requirement areas and under the associate of arts degree requirements.

In general, a total of 124 to 128 hours are required for most four-year degrees. If you are still undecided about a major in your second year, you should work closely with a counselor in making a decision that will enable you to transfer without loss of time or credit.

University Transfer Programs for Specific Majors
Copies of university transfer programs are available in the Success Center on campus or on the transfer information Web site.

Individual Transfer Program
If you plan to attend a four-year college or university that is not local or if you choose a major not listed under local university transfer programs, you may work with a counselor to develop your own individual transfer program.

Credit Career and Certificate Programs

Credit Career and Certificate Program List
Listing of JCCC's career and certificate programs

Career Programs
JCCC's career programs provide the opportunity for students to study specific careers and enter the job market directly. Each program has been designed with the assistance of a community advisory committee of men and women currently working in the field who are well aware of the requirements and job potential in today's market.

Although career program courses usually are not intended to be transfer programs, some of the courses may transfer to four-year colleges and universities. Specific information on course transferability can be found in the Success Center on campus or on the transfer information Web site (http://web.jccc.net/academic/transfer). Several of the career programs enable students to gain valuable work experience in the community while taking the career program courses.

Students who are interested in a career program should contact a JCCC counselor for more information. Counselors can assist students with entrance requirements, course selection and sequence, and job possibilities. Careful planning and course selection can be just as important in a career program as dedication in the classroom.

Certificate of Completion
To earn a certificate of completion at Johnson County Community College, students must have demonstrated the basic skills competencies as outlined. In addition, students must have successfully completed an approved certificate program with both a cumulative grade point average of 2.0 or better and a JCCC GPA of 2.0 or better. Students must complete a minimum of 50 percent of the required coursework at JCCC.
Students must be enrolled at the college during the time they anticipate completing certificate requirements. An application to complete certificate requirements must be filed in the Success Center on campus by the following dates:

- Feb. 15 for spring graduation
- June 15 for summer graduation
- Oct. 15 for fall graduation

Certificates will be issued at the end of each semester or term. Graduation exercises will be held once a year at the completion of the spring semester.

Students who have completed the requirements for a certificate in prior semesters of the same academic year will be invited to participate in graduation. Specific course completion certificates will be awarded as appropriate and as specified in the college catalog.

**Postsecondary/Vocational Certificates**

- are designed with an emphasis on a specific career program.

**Postsecondary Certificates**

- provide training in a focused program.
- require successful completion of a minimum of 31 credit hours with a 2.0 or higher GPA.
- must include ENGL 121, Composition I, and MATH 115, Introduction to Algebra, or higher.

**Vocational Certificates**

- provide specialized training.
- require successful completion of the courses specified with at least a 2.0 or higher GPA.
- can range from 3 to 30 credit hours (or up to 33 if additional credits are due to courses with 4 or 5 credit hours).

**Credit Career and Certificate Program List**

Programs, degrees and certificates are listed in alphabetical order (by 1st letter of title). Additionally, degrees and certificates are included under their program area.

**ABLE**

**Accounting**

Accounting, A.A.S.

**Bookkeeping Entrepreneurship Certificate**

**Tax Preparation Entrepreneurship Certificate**

**Administration of Justice/Law Enforcement**

Administration of Justice, A.A.

**Agriculture (see Horticulture)**

**Animation**

Animation, A.A.S.

**Area Vocational Schools and Technical Colleges Completion**
Kansas AVS/TC Articulated, A.A.S.

Administrative Assistant (see Business Office Technology)
Admin Asst-Legal Emphasis (see Business Office Technology)
Admin Asst-Medical Emphasis (see Business Office Technology)
Admin Support Specialist Certificate (see Bus Office Tech)
American Sign Language Studies Cert (see Interpreter Train)

Automotive Technology
Automotive Technology, A.A.S.
Automative Technology Certificate
Automotive Technology Entrepreneurship Certificate

Biotechnology
Biotechnology, A.A.S.
Biotechnology, A.S.
Biotechnology Certificate

Bookkeeping Entrepreneurship Cert (see Accounting)

Business Administration
Business Administration, A.A.S.

Business Entrepreneurship (see Entrepreneurship)

Business Logistics Management
Business-Logistics Mgt, A.A.S.

Business Office Technology
Administrative Assistant, A.A.S.
Administrative Assistant with Legal Emphasis, A.A.S.
Administrative Assistant with Medical Emphasis, A.A.S.
Administrative Support Specialist Certificate
Business Administrative Assistant Entrep Certificate
Medical Administrative Assistant Entrepreneurship Cert
Medical Office Assistant Certificate
Medical Transcription Certificate
Office Careers Certificate

Owning/Managing a Virtual Home Office Certificate

Virtual Home Office Certificate
Virtual Medical Office Certificate
Certified Medication Aide (see Health Occupations)
Cert Medication Aide Update (see Health Occupations)
Certified Nurse Aide (see Health Occupations)
Certified Nurse Aide Refresher (see Health Occupations)
Chef Apprenticeship (see Hospitality Management)
Civil Engineering Technology
Civil Engineering Technology, A.A.S.
Construction Management Certificate
Engineered Plumbing Systems Certificate
Commercial Wiring (see Electrical Technology)
Communication Design (see Graphic Design)
Computer-aided Drafting-Design Tech (see Drafting Tech)
Computer-aided Drafting Certificate (see Drafting Tech)
Computer Information Systems
Computer Information Systems, A.A.S.
Database Certificate
Desktop Publishing Certificate
Microcomputer Programmer Analyst Certificate
Personal Computer Application Specialist
Web Application Certificate
Web Developer Advanced Certificate
Construction Management (see Civil Engineering Technology)
Cosmetology
Advanced Esthetics Certificate
Cosmetology, A.A.S.
Cosmetology Certificate
Cosmetology Instructor Training Certificate
Esthetics Certificate
Nail Technology Certificate
Database Certificate (see Computer Information Systems)
Data Processing (see Computer Information Systems)
Dental Assisting (see Health Occupations)
Dental Hygiene
Dental Hygiene, A.A.S.

Desktop Publishing Certif (see Computer Information Systems)

Drafting Technology

Computer-aided Drafting and Design Technology, A.A.S.

Computer-aided Drafting Certificate

Early Childhood Education

Early Childhood Education, A.S.

Early Childhood Education Certificate

Electrical Technology

Commercial Wiring Certificate

Electrical Technology, A.A.S.

Electrical Technology Certificate

Industrial Maintenance, A.A.S.

Industrial Maintenance Certificate

Industrial Electrical Wiring Certificate

Residential Wiring Certificate

Electronics Technology

Electronics Technology, A.A.S.

Industrial Controls Certificate

Microcomputer Technical Support Certificate

Smart House Technology Integrator Certificate

Emergency Medical Science (EMS)

Emergency Medical Science, A.A.S.

Mobile Intensive Care Technician Certificate

Emergency Medical Technician Certificate

Engineered Plumbing Systems Certif (see Civil Engineer Tech)

Entrepreneurship

Automotive Technology Entrepreneurship Cert (see Automotive)

Bookkeeping Entrepreneurship Cert (see Accounting)

Business Admin Asst Entrepren Cert (see Busin Office Tech)

Business Plan Certificate

Entrepreneurship, A.A.S.

Entrepreneurship Certificate
Fashion Design Entrepreneurship Cert (see Fash Merch-Design)
Fashion Merchandising Entrepren Cert (see Fash Merch-Design)
Game Entrepreneurship Advanced Certificate (see Game)
Hospitality Entrepreneurship Cert (see Hospitality Manage)
Interior Design and Merch Entrepren (see Interior Design)
Legal Nurse Consultant Entrepreneur. Cert.(see Legal Nurse)
Marketing Specialist Entrepren Cert (see Marketing)
Medical Admin Asst Entrepren Cert (see Business Office Tech)
Multimedia Design Entrepreneur. Cert.(see Interactive Media)
Pastry/Baking Entrepreneur Cert.(see Hospitality Management)
Tax Preparation Entrepreneurship Cert (see Accounting)
Visual Merchandising Entre. Cert.(see Fashion Merchandising)
Web Design Entrepreneurship Cert. (see Interactive Media)

Esthetics Certificate (see Cosmetology)
Esthetics Advanced Training (see Cosmetology)
Fashion Merchandising and Design
  Fashion Merchandising, A.A.S.
  Fashion Design Entrepreneurship Certificate
  Fashion Design, A.A.S.
  Fashion Merchandising Entrep Certificate
  Visual Merchandising Certificate
  Visual Merchandising Entrepreneurship Certificate

Fire Services Administration
  Fire Services Administration, A.A.

Food and Beverage Management (see Hospitality Management)

Game
  Game Art & Music Advanced Certificate
  Game Business Advanced Certificate
  Game Development, A.A.S.
  Game Entrepreneurship Advanced Certificate
  Game Narrative Advanced Certificate
  Game Programming Advanced Certificate

Geographic Information Systems
Geographic Info Systems Cert
Graphic Design
Graphic Design, A.A.S.
Health Care Interpreting (see Interpreter Training)
Health Information Technology
Health Information Tech, A.A.S
Health Occupations
Certified Medication Aide Certificate
Certified Medication Aide Update Certificate
Certified Nurse Aide Certificate
Certified Nurse Aide Refresher Certificate
Dental Assisting, A.A.S.
Dental Assisting Certificate
Dental Hygiene (see listing for Dental Hygiene)
Emergency Medical Science (see listing Emerg Medical Sci)
Home Health Aide Certificate
IV Therapy for LPN's Certificate
Nursing (see listing for Nursing)
Occupatnl Therapy Asst, A.A.S.
Physical Therapist Asst, A.A.S
Radiologic Technology, A.A.S.
Rehabilitative Aide Certificate
Respiratory Care (see listing for Respiratory Care)
Surgical Technology Cert
Health Care Interpreting (see Interpreter Training)
Heating, Ventilation and Air Conditioning Technology
General Basic HVAC Certificate
General Basic HVAC Installation and Duct Fabrication Cert.
General Basic HVAC Maintenance Certificate
General Basic HVAC Sales, Design and Estimating Cert.
HVAC Commercial Service Technician, A.A.S.
HVAC Commercial Service Technician Certificate
HVAC Installation Technician Certificate
HVAC Residential Service Technician, A.A.S.
HVAC Residential Service Technician Certificate
Home Health Aide Certificate (see Health Occupations)

Horticulture
Horticulture Certificate
Landscape Technician Certificate

Hospitality Management
Chef Apprenticeship, A.A.S.
Food and Beverage Management, A.A.S.
Food and Beverage Management Certificate
Hospitality Entrepreneurship Certificate
Hotel & Lodging Management, A.A.S.
Pastry/Baking Certificate
Pastry/Baking Entrepreneurship Certificate

Industrial Controls Certificate (see Electronics Technology)
Industrial Electrical Wiring Cert(see Electrical Technology)

Information Systems (see Computer Information Systems)

Information Technology
Information Technology, A.A.S.
Network Administration: UNIX Certificate
Network Administration: Windows Certificate
Network Connectivity Certificate

Interactive Media
Interactive Media, A.A.S.
Multimedia Design Certificate
Multimedia Design Entrepreneurship Certificate
Web Design Certificate
Web Design Entrepreneurship Certificate

Interior Design
Interior Design, A.A.S.
Interior Design Advanced Certificate
Interior Design Retail Sales/Manufacturing Rep Certificate
Interior Design & Merchandising Entrep Certificate
Interior Entrepreneurship, A.A.S.
Interior Merchandising, A.A.S.
Interior Products Sales Representative Certificate

Interpreter Training
Interpreter Training, A.A.S.
American Sign Language Studies Certificate
Health Care Interpreting Certificate

IV Therapy for LPN Certificate (see Health Occupations)

Land Surveying
Land Surveying, A.A.S.
Land Surveying Certificate

Legal Studies
Paralegal, A.A.
Legal Nurse Consultant Certificate
Legal Nurse Consultant Entrepreneurship Certificate
Paralegal Certificate

Marketing and Management
Marketing and Management, A.A.S.
Marketing Specialist Entrepreneurship Certificate
Retail Sales Representative Certificate
Sales and Customer Relations Certificate
Supervision Management Certificate
Teleservice Representative Certificate
Teletrac Certificate

Medical Office Assistant Certif (see Business Office Tech)
Medical Transcription Certificate (see Business Office Tech)

Metal Fabrication/Welding
Metal Fabrication Technology, A.A.S.
Metal Fabrication Technology Certificate
Combination Welder I Certificate
Combination Welder II Certificate
Combination Welder/Machinist I Certificate
General Basic Welding Certificate
Microcomputer Programmer Analyst Cert (see Computer Info Sys)
Microcomputer Technical Support Certif (see Electronics Tech)
Mobile Intensive Care Technician Certificate (see EMS)
Multimedia Design Certificate (see Interactive Media)
Multimedia Design Entrepreneur. Cert. (see Interactive Media)
Nail Technology Certificate (see Cosmetology)
Network Administration: UNIX Certif (see Information Tech)
Network Administration: Windows Certif (see Information Tech)
Network Connectivity Certificate (see Information Tech)
Nursing
Nursing - Registered Nurse, A.A.S.
PN to RN Transition, A.A.S
Practical Nursing Day Certificate
Practical Nursing Evening Weekend Certificate
Occupational Therapy Assistant (see Health Occupations)
Office Careers Certificate (see Business Office Technology)
Office Systems Technology (see Business Office Technology)
Own/Manage Virtual Home Office Cert (see Bus Office Tech)
Paralegal (see Legal Studies)
Pastry/Baking Certificate (see Hospitality Management)
Personal Computer Applications Cert (see Computer Infor Sys)
Physical Therapy Assistant (see Health Occupations)
PN to RN Transition (see Nursing)
Practical Nursing (see Nursing)
Professional Paraeducator
Professional Paraeducator Program, A.A.
Radiologic Technology (see Health Occupations)
Railroad Electronics
Railroad Electronics, A.A.S.
Railroad Electronics Certificate
Railroad Industrial Technology
Railroad Carman Welding Certificate
Railroad Machinist Welding Certificate
Railroad Structural Welding Certificate
Railroad Track Welding Certificate

Railroad Operations
Railroad Operations - Conductor Option, A.A.S.
Railroad Conductor Certificate
Railroad Operations - General Option, A.A.S.
Railroad Operations - Mechanical Option, A.A.S.
Railroad Operations - Welding Option, A.A.S.
Rehabilitative Aide Cert (see Health Occupations)
Residential Wiring Certificate (see Electrical Technology)

Respiratory Care
Respiratory Care, A.A.S.
Retail Sales Representative Cert (see Marketing and Manage)
Sales and Customer Service Cert (see Marketing and Manage)
Science Technology (see Biotechnology)
Sign Language Communication Cert (see Interpreter Training)
Smart House Technology Integrator (see Electronics)
Supervision Management Cert (see Marketing and Management)
Surgical Technology (see Health Occupations)
Tax Preparation Entrepreneurship Cert (see Accounting)
Teleservice Technology (see Marketing and Management)
Teletrac Certificate (see Marketing and Management)
Veterinary Technology
Veterinary Technology, A.A.S.
Virtual Home Office Certificate (see Business Office Tech)
Virtual Medical Office Cert (see Business Office Technology)
Visual Merchandising Cert (see Fashion Merch and Design)
Web Application Certificate (see Interactive Media)
Web Design Certificate (see Interactive Media)
Web Developer Advanced Certificate (see Computer Info Sys)
Welding (see Metal Fabrication or Railroad)

ABLE
Academic Bridges to Learning Effectiveness
This nationally recognized program teaches students with neurological disabilities, such as learning disabilities and brain injuries, how to become independent learners.

Students take courses with supplemental workshops as well as attend weekly support group meetings to build skills and confidence for college and vocational programs.

A learning disabilities specialist works with each student to design an individualized curriculum. For more information, call Longview Community College, 816-672-2053, or Penn Valley Community College, 816-759-4089.

Accounting, A.A.S.

Accounting is a crucial part of every business operation and the language that businesses speak. The associate of applied science degree program focuses on practical skills often required for entry-level paraprofessional positions. The internship course gives the graduate on-the-job experience working in an approved business. Two-year graduates may find positions as accounting assistants, accounting clerks and general bookkeepers.

The accounting career program (see: www.jccc.net/home/depts/1202) is accredited by the Association of Collegiate Business Schools and Programs (ACBSP). For students wishing to transfer to a four-year college accounting or business program, this accreditation makes the transfer a smoother process. For more information, please contact the career facilitator (skleiner@jccc.edu) or a JCCC counselor.

(2400 52.0302)

Accounting Careers

Associate of Applied Science Degree

First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 121</td>
<td>Composition I*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Social Science and/or Economics Electives</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 121</td>
<td>Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 120</td>
<td>Business Mathematics*</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>MATH 171 College Algebra or higher*</td>
<td>3</td>
</tr>
<tr>
<td>BOT 101</td>
<td>Computerized Keyboarding</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Business Electives</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL CREDIT HOURS</td>
<td></td>
<td>16</td>
</tr>
</tbody>
</table>

Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 122</td>
<td>Accounting II*</td>
<td>3</td>
</tr>
<tr>
<td>BUS 150</td>
<td>Business Communications*</td>
<td>3</td>
</tr>
<tr>
<td>BUS 261</td>
<td>Business Law I</td>
<td>3</td>
</tr>
<tr>
<td>BOT 115</td>
<td>Electronic Calculators</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Business Electives</td>
<td>6</td>
</tr>
<tr>
<td>TOTAL CREDIT HOURS</td>
<td></td>
<td>16</td>
</tr>
</tbody>
</table>

Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 222</td>
<td>Managerial Accounting*</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>ACCT 231 Intermediate Accounting I*</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 278</td>
<td>Accounting Internship*</td>
<td>1</td>
</tr>
<tr>
<td>ACCT 140</td>
<td>Computerized Accounting Problems*</td>
<td>3</td>
</tr>
<tr>
<td>BUS 225</td>
<td>Human Relations</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 138</td>
<td>Business Ethics</td>
<td>1</td>
</tr>
<tr>
<td>HIST 141</td>
<td>U.S. History Since 1877</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Business Electives</td>
<td>2</td>
</tr>
<tr>
<td>TOTAL CREDIT HOURS</td>
<td></td>
<td>16</td>
</tr>
</tbody>
</table>
Fourth Semester

ACCT 215  Accounting for Nonprofit Organizations*^.................3
or
ACCT 221  Cost Accounting*^--------------------------------------------3
or
ACCT 232  Intermediate Accounting II*^-------------------------------3
ACCT 131  Federal Income Taxes I........................................3
ACCT 135  Computerized Accounting Applications*........................3
ACCT 285  Accounting Capstone*...........................................3
Business Electives.........................................................3
Health and/or Physical Education Elective.........................1
TOTAL CREDIT HOURS.....................................................16
TOTAL PROGRAM CREDIT HOURS..........................64

Note: Business electives are any courses with the BUS,
ENTR or ECON prefix.

*Prerequisite/Corequisite required
Note: ^The student is required to complete two of the five
following accounting courses: ACCT 215, 221, 222,
231 or 232.

Bookkeeping Entrepreneurship Certificate

The bookkeeping entrepreneurship certificate prepares students to open their own
service business providing bookkeeping assistance to small businesses. This
certificate is designed to provide the student with basic accounting skills and the
basic skills in small business development and management. Upon successful
completion, the students should be prepared to develop and sustain their own
bookkeeping service business.

(4050 52.0302)

Accounting Careers

Vocational Certificate

Prerequisite for Required Courses

ENGL 121  Composition I*.................................................3

Required Courses

ACCT 121  Accounting I................................................3
ACCT 135  Computerized Accounting Applications*.....................3
BUS 150  Business Communications*.....................................3
ENTR 120  Introduction to Entrepreneurship...............................2
ENTR 180  Opportunity Analysis............................................2
ACCT 122  Accounting II*................................................3
ACCT 140  Computerized Accounting Problems*..........................3
ACCT 222  Managerial Accounting*.........................................3
or
ACCT 215  Accounting for Nonprofit Organizations*....................3
or
ACCT 231  Intermediate Accounting I*....................................3
ACCT 285  Accounting Capstone*...........................................3
ENTR 142  Fast Trac Business Plan..........................................3
TOTAL CREDIT HOURS.....................................................28

Additional Suggested Coursework

ENTR 160  Legal Issues for Small Business..............................2
ENTR 195  Franchising*....................................................3
ENTR 220  Entrepreneurial Marketing*....................................2
*Prerequisite/Corequisite required
Tax Preparation Entrepreneurship Certificate

The tax preparation entrepreneurship certificate prepares students to open their own service business providing tax preparation services for simple individual's tax returns. This certificate is designed to provide the student with basic accounting skills and small business development and management. Upon successful completion, students should be prepared to develop and sustain their own tax preparation service for individuals. Further academic coursework and/or certifications would be necessary to prepare more advanced tax forms.

(4310 52.1601)

Accounting Careers

Vocational Certificate

Prerequisite for Required Course

BUS 230 Marketing.................................3

Required Courses

ACCT 121 Accounting I..........................3
ACCT 131 Federal Income Taxes I...............3
ENTR 120 Introduction to Entrepreneurship......2
ENTR 180 Opportunity Analysis..................2
ENTR 160 Legal Issues for Small Business.......2
ACCT 122 Accounting II*..........................3
ACCT 135 Computerized Accounting Applications*3
ACCT 140 Computerized Accounting Problems*....3
ACCT 285 Accounting Capstone*................3
ACCT 278 Accounting Internship*................1
ENTR 142 Fast Trac Business Plan..............3
ENTR 220 Entrepreneurial Marketing*............2
TOTAL PROGRAM CREDIT HOURS.................30

Additional Suggested Coursework

ENTR 195 Franchising*..........................3
*Prerequisite/Corequisite required

Administration of Justice, A.A.

More than 1 million people are employed in the administration of justice/law enforcement fields in the United States. Employment opportunities are expected to grow as fast or slightly faster than average for all occupations in the field. JCCC’s administration of justice/law enforcement program provides you the opportunity to study various aspects of the criminal justice fields. Successful completion of 64 hours of credit in this two-year program leads to an associate of arts degree. You should contact a counselor when developing a program plan.

(2120 43.0107)

Administration of Justice

Associate of Arts Degree

First Semester

ENGL 121 Composition I*..........................3
Social Science Course**..........................3
ADMJ 121 Introduction to Administration of Justice^3
ADMJ 124 Criminal Justice and Corrections......3
ADMJ 127 Criminology............................3
TOTAL CREDIT HOURS............................15
### Second Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPD 120</td>
<td>Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 122</td>
<td>Composition II*</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 143</td>
<td>Ethics</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 140</td>
<td>Constitutional Case Law*</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 230</td>
<td>Criminal Behavior*</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ Program Electives</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>TOTAL CREDIT HOURS</td>
<td></td>
<td>18</td>
</tr>
</tbody>
</table>

### Third Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FL 130</td>
<td>Elementary Spanish I</td>
<td>5</td>
</tr>
<tr>
<td>ADMJ 120</td>
<td>Writing in the Disciplines*</td>
<td>1</td>
</tr>
<tr>
<td>ADMJ Program Electives</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Science and/or Math Elective***</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>TOTAL CREDIT HOURS</td>
<td></td>
<td>15</td>
</tr>
</tbody>
</table>

### Fourth Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humanities Course</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Social Science Course**</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ADMJ 280</td>
<td>Criminal Justice and the Public*</td>
<td>3</td>
</tr>
<tr>
<td>Science and/or Math Elective***</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Health and/or Physical Education Elective</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>ADMJ Program Electives</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>TOTAL CREDIT HOURS</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>TOTAL PROGRAM CREDIT HOURS</td>
<td>64</td>
<td></td>
</tr>
</tbody>
</table>

### Required Program Electives

9 hours - any three courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADMJ 130</td>
<td>Crime Prevention</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 133</td>
<td>Juvenile Delinquency</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 141</td>
<td>Criminal Law*</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 143</td>
<td>Crime Analysis</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 145</td>
<td>Fundamentals Private Security</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 146</td>
<td>Retail Security</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 148</td>
<td>Family Violence/Sexual Abuse</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 154</td>
<td>Fundamentals of Criminal Investigation*^</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 170</td>
<td>Introduction to Substance Use and Abuse</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 201</td>
<td>Police Interrogation*</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 221</td>
<td>Introduction to Forensics</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 224</td>
<td>Introduction to Terrorism</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 235</td>
<td>Community Based Corrections</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 281</td>
<td>Readings in Police Science*</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 285</td>
<td>Administration of Justice Internship*</td>
<td>3</td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required

** You must take two courses from the following list, but not more than one course from each group may count toward the required 6 hours.

**Group 1:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLS 124</td>
<td>American National Government</td>
<td>3</td>
</tr>
<tr>
<td>POLS 126</td>
<td>State and Local Government</td>
<td>3</td>
</tr>
</tbody>
</table>

**Group 2:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 130</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

Note: This is a prerequisite for ADMJ 230.

**Group 3:**

---

spring-2007  Copyright 2007 Johnson County Community College  Page 34
Animation, A.A.S.

The Associate of Applied Science Degree Animation program provides instruction for creating animation, 3D modeling and special effects for applications such as animated shorts and movies and games, and rendering 3D environments. Fundamental interactive concepts, the development of assets and screen design will be covered. Depending on individual choices and talents, students who complete the Animation program should be prepared for employment as an animator, a game art creator, a 3D visual artist, and/or a special effects artist.

(2630 10.0304)

Associate of Applied Science Degree

Prerequisites for Required Courses

Note: Prior to the beginning of the program, the student must take the following prerequisites, or have taken the equivalent transfer courses, or have passed the waiver test (where applicable), or have obtained a waiver from the program administrator.

CDTP 135 Desktop Photo Manipulation I: Photoshop*....................1
CDTP 145 Desktop Illustration I: Illustrator*.........................1
CWEB 101 Introduction to the Web using Internet Explorer*........1
CWEB 105 Introduction to Web Pages: Dreamweaver*..............1
ANI 120 Conceptual Art for Animation..............................1
TOTAL CREDIT HOURS...................................5

First Semester

CIM 130 Interactive Media Concepts..................................2
CIM 140 Interactive Media Assets*......................................4
CIM 133 Screen Design*..............................................4
ANI 145 Introduction to 3D Animation*..............................3
ENGL 121 Composition I*............................................3
TOTAL CREDIT HOURS........................................16

Second Semester

ANI 245 Character Animation*.........................................3
ENGL 140 Writing for Interactive Media*............................3
Animation Elective.......................................................3
Elective........................................................................3
Humanities Electives....................................................3
Science and/or Math Elective*......................................3
TOTAL CREDIT HOURS.................................................18

Third Semester

ANI 255 Advanced Animation and Effects*............................3
ENGL 150 Digital Narratives*..........................................3
MUS 156 MIDI Music Composition...............................3
BUS 141 Principles of Management.............................3
Elective.....................................................................3
Health and/or Physical Education Elective....................1
TOTAL CREDIT HOURS..................................................16

Fourth Semester
ANI 260 Animation Capstone*..................................3
ANI 273 Career Preparation*..................................4
Animation Elective.............................................3
Elective.....................................................................3
Social Science and/or Economics Elective....................3
TOTAL CREDIT HOURS..................................................16
TOTAL PROGRAM CREDIT HOURS.................................66

Animation Electives
GAME 101 Computer Game Creation...............................4
GAME 110 Flash Gaming*........................................4
GAME 200 Game Design*........................................3
CIS 134 Programming Fundamentals...........................4
CIS 162 Database Programming*.................................4
CS 180 Introduction to Artificial Intelligence*..............3
CIM 135 Digital Imaging and Video*............................3
CIM 154 Interactive Authoring I: Director*..................4
CIM 156 Interactive Authoring I: Web*.........................4
CIM 200 Interactive Communication Form*.....................3
CIM 235 Advanced Digital Video*.................................3
CIM 254 Interactive Authoring II: Director*..................4
ART 130 Drawing I..................................................3
ART 231 Life Drawing I*........................................3
ART 232 Life Drawing II*........................................3
PHOT 121 Fundamentals of Photography......................3
PHOT 128 Digital Photography.................................3
*Prerequisite/Corequisite required

Kansas AVS/TC Articulated, A.A.S.

This degree is designed to facilitate student transfer of technical education programs under the provisions outlined in the Transfer Agreement and Articulation Guide for Kansas Community Colleges, Area Technical Schools and Colleges for the Associate in Applied Science, dated September 1999.

This degree may be earned by a student wishing to transfer from a Kansas Area Vocational Technical School or Kansas Technical College with the following criteria:

- Completion of an eligible technical program of 1080 hours or more from a Kansas Vocational Technical School or Kansas Technical College.
- Official transcript from the technical institution documenting the number of hours and certificate or degree awarded.
- The student must have 15 credits from JCCC in order to receive this degree from JCCC.
- The 1080 documented hours will be transferred to JCCC as 45 transfer credit hours and will be placed on the student's JCCC transcript when the student applies for graduation from JCCC.
- Students must also meet general JCCC admissions, residency and graduation requirements.
- Interested students should contact a JCCC counselor for further information prior to transfer and enrollment.

Kansas AVS/TC Articulated
Automotive Technology, A.A.S.

Automotive technicians generally begin their careers in service repair shops, with continually expanding industrial and service career advancement opportunities. Technicians work with experienced professionals and have frequent contact with the public. This field requires good mechanical aptitude and manual dexterity skills.

The two-year associate of applied science degree, which is certified by the ASE, covers all major areas, including diagnosis and tune-up, chassis, electrical/electronic and hydraulic systems, automatic transmissions, engines, and emissions. Students work on developing the skills needed to advance to a supervisory position, such as customer relations, estimating materials and labor costs, and managing the work of others.

In the Kansas City area, the anticipated job growth is 32 percent by 2008. About 239 annual openings are expected to occur each year. The average hourly wage in 2002 was $16.22.

(2420 47.0604)

Automotive Technology

Associate of Applied Science Degree

Prior to beginning the automotive technology associate of applied science degree program, the student must have:

AUTO 125 Introduction to Automotive Shop Practices ............3
or
Approval of division administrator

First Semester

AUTO 163 Automotive Steering and Suspension* .................3
AUTO 234 Automotive Electrical System* .......................4
INDT 125 Industrial Safety ....................................3
MATH 120 Business Mathematics* ............................3
ENGL 121 Composition I* ...................................3
TOTAL CREDIT HOURS ..................................16

Second Semester

AUTO 165 Automotive Engine Repair* .............................4
AUTO 167 Automotive Brake System* ............................2
AUTO 168 Automotive Manual Drivetrain and Axles* ..........3
ENGL 123 Technical Writing I* ..................................3
Technical/Related Electives ..................................3
Health and/or Physical Education Elective .................1
TOTAL CREDIT HOURS ..................................16

Third Semester

AUTO 250 Automatic Transmissions and Transaxles* ..............4
AUTO 254 Automotive Engine Performance* .....................5
Automotive Technology Certificate

The automotive technology certificate program is designed to meet the needs of today's beginning and experienced auto technicians. With the completion of the certificate program, the student will have a well-rounded background in the repair required for dealership and independent service personnel. Completion of courses should assist students in preparing for ASE certification tests. Most automotive trades expect applicants to pass one or more of the ASE tests, which will enable them to qualify for technical positions in service repair.

(4710 47.0604)

Automotive Technology

Vocational Certificate

Prior to beginning the automotive technology vocational certificate program, the student must have:

AUTO 125 Introduction to Automotive Shop Practices.............3

or

Approval of division administrator

Required Courses

INDT 125 Industrial Safety ........................................3
INDT 155 Workplace Skills.....................................3
AUTO 163 Automotive Steering and Suspension*....................3
AUTO 165 Automotive Engine Repair*............................4
AUTO 167 Automotive Brake System*............................2
AUTO 168 Automotive Manual Drivetrain and Axles*.............3
Automotive Technology Entrepreneurship Certificate

This 31 credit-hour certificate is designed to prepare students to open their own automotive service business. This certificate is designed to provide the student with basic skills in automotive technology and small business development and management. Upon completion, the student should be better prepared to develop, grow and sustain their own automotive service business venture.

(4180 47.0604)

Automotive Technology

Vocational Certificate

Prerequisites for Required Courses

AUTO 125 Introduction to Automotive Shop Practices .................................. 3
AUTO 165 Automotive Engine Repair*...................................................... 4
AUTO 234 Automotive Electrical System*................................................ 4

Required Courses

INDT 125 Industrial Safety................................................................. 3
AUTO 163 Automotive Steering and Suspension*.................................... 3
AUTO 167 Automotive Brake System*................................................... 2
AUTO 168 Automotive Manual Drivetrain and Axles*............................ 3
INDT 155 Workplace Skills........................................................................ 1
ENTR 120 Introduction to Entrepreneurship........................................... 2
ENTR 180 Opportunity Analysis.............................................................. 2
AUTO 250 Automatic Transmissions and Transaxles*............................ 4
AUTO 254 Automotive Engine Performance*......................................... 5
AUTO 230 Automotive Heating and Air Conditioning*............................ 3
ENTR 142 Fast Trac Business Plan......................................................... 3

TOTAL PROGRAM CREDIT HOURS......................................................... 31

Additional Suggested Coursework

ENTR 131 Financial Management for Small Business*............................ 2
ENTR 160 Legal Issues for Small Business............................................... 2
ENTR 195 Franchising*........................................................................... 3
ENTR 220 Entrepreneurial Marketing*.................................................... 2

*Prerequisite/Corequisite required

Biotechnology, A.A.S.

The greater Kansas City area and specifically Johnson County have numerous biological-, pharmaceutical- and chemical-related formulating, manufacturing, research and testing companies. Many of these facilities employ scientific technicians to support the endeavors of their professional scientists and engineers.

JCCC’s science technology program is designed to develop scientific support personnel for the metropolitan area.

This program offers specific knowledge and training designed to provide you with entry-level skills for employment as a technician. It also provides the breadth of background sufficient to encourage change and flexibility.

The biotechnology associate of applied science degree program will prepare
students to work in biotechnology laboratories associated with universities, medical centers, private research institutions, and a variety of industrial applications. Upon completion of this 66-68 hour degree, students will be able to find entry-level or higher positions in diverse fields of biotechnology. Along with basic and more advanced science courses, students will take specialized courses such as laboratory safety and biotechnology methods.

Note: Metropolitan Community College students should seek specific counsel from the JCCC program personnel for the appropriate course plan and numbers. Missouri students should refer to Cooperative Program Information. (2110 41.0101)

Science Department

Associate of Applied Science Degree

Prerequisite for Required Courses

Note: The student must take the prerequisite, CHEM 122, or have taken the equivalent course. For a waiver, contact the assistant dean.

First Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 135</td>
<td>Principles of Cell and Molecular Biology</td>
<td>4</td>
</tr>
<tr>
<td>BIOT 160</td>
<td>Introduction to Biotechnology*</td>
<td>2</td>
</tr>
<tr>
<td>BIOT 165</td>
<td>Laboratory Safety*</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 122</td>
<td>Principles of Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>MATH 133</td>
<td>Technical Mathematics I or higher*</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>TOTAL CREDIT HOURS</td>
<td>15-17</td>
</tr>
</tbody>
</table>

Second Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 230</td>
<td>Microbiology*</td>
<td>3</td>
</tr>
<tr>
<td>CIS 124</td>
<td>Introduction to Computer Concepts and Applications</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 121</td>
<td>Composition I*</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 133</td>
<td>Applied Physics*</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Social Science/Economics Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>TOTAL CREDIT HOURS</td>
<td>17</td>
</tr>
</tbody>
</table>

Third Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 144</td>
<td>Human Anatomy and Physiology</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Physical Education Elective</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 205</td>
<td>General Genetics*</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 140</td>
<td>Principles of Organic &amp; Biological Chemistry*</td>
<td>5</td>
</tr>
<tr>
<td>ENGL 123</td>
<td>Technical Writing I*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>TOTAL CREDIT HOURS</td>
<td>18</td>
</tr>
</tbody>
</table>

Fourth Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOT 260</td>
<td>Biotechnology Methods*</td>
<td>5</td>
</tr>
<tr>
<td>BIOL 145</td>
<td>Human Anatomy and Physiology Dissection*</td>
<td>1</td>
</tr>
<tr>
<td>BIOT 265</td>
<td>Biotechnology Internship*</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 155</td>
<td>Introduction to Bioethics*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Humanities Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>TOTAL CREDIT HOURS</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>TOTAL PROGRAM CREDIT HOURS</td>
<td>66-68</td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required

Biotechnology, A.S.

The greater Kansas City area and specifically Johnson County have numerous biological-, pharmaceutical- and chemical-related formulating, manufacturing, research and testing companies. Many of these facilities employ scientific technicians to support the endeavors of their professional scientists and
engineers.
JCCC’s science technology program is designed to develop scientific support personnel for the metropolitan area.
This program offers specific knowledge and training designed to provide you with entry-level skills for employment as a technician. It also provides the breadth of background sufficient to encourage change and flexibility.
The biotechnology associate of science degree program will prepare students who wish to pursue a baccalaureate degree in the biological sciences. Upon completion of this 78-hour degree, students will be able to find entry-level or higher positions in the diverse field of biotechnology. Along with basic and more advanced science courses, students will take specialized courses in subjects such as laboratory safety and biotechnology methods.
Note: Metropolitan Community College students should seek specific counsel from the JCCC program personnel for the appropriate course plan and numbers. Missouri students should refer to Cooperative Program Information.
(2130 41.0101)

Science Department

## Associate of Science Degree

### First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 181</td>
<td>Statistics*</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 135</td>
<td>Principles of Cell and Molecular Biology</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 124</td>
<td>General Chemistry I Lecture*</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 125</td>
<td>General Chemistry I Lab*</td>
<td>1</td>
</tr>
<tr>
<td>SPD 120</td>
<td>Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>SPD 121 Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>SPD 125 Personal Communication</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>SPD 180 Intercultural Communication</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 121</td>
<td>Composition I*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td><strong>18</strong></td>
</tr>
</tbody>
</table>

### Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOT 160</td>
<td>Introduction to Biotechnology*</td>
<td>2</td>
</tr>
<tr>
<td>BIOL 150</td>
<td>Biology of Organisms*</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 131</td>
<td>General Chemistry II Lecture*</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 132</td>
<td>General Chemistry II Lab*</td>
<td>1</td>
</tr>
<tr>
<td>ENGL 123</td>
<td>Technical Writing I*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Humanities Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td><strong>18</strong></td>
</tr>
</tbody>
</table>

### Summer

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 230</td>
<td>Microbiology*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Social Science/Economics Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td><strong>6</strong></td>
</tr>
</tbody>
</table>

### Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOT 165</td>
<td>Laboratory Safety*</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 220</td>
<td>Organic Chemistry I*</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 130</td>
<td>General Physics I*</td>
<td>5</td>
</tr>
<tr>
<td>BIOL 205</td>
<td>General Genetics*</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Humanities Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td><strong>18</strong></td>
</tr>
</tbody>
</table>

### Fourth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOT 260</td>
<td>Biotechnology Methods*</td>
<td>5</td>
</tr>
</tbody>
</table>
Biotechnology Certificate

Greater Kansas City and specifically Johnson County have numerous biological-, pharmaceutical- and chemical-related formulating, manufacturing, research and testing companies. Many of these facilities employ scientific technicians to support the endeavors of their professional scientists and engineers.

JCCC’s science technology program is designed to develop scientific support personnel for the metropolitan area.

This program offers specific knowledge and training designed to provide you with entry-level skills for employment as a technician. It also provides the breadth of background sufficient to encourage change and flexibility.

The biotechnology vocational certificate is for students seeking employment in the biotechnology industry either in private or academic research laboratories. This certificate will demonstrate to potential employers that the student has experience in performing a variety of techniques necessary for the day-to-day operation.

Note: Metropolitan Community College students should seek specific counsel from the JCCC program personnel for the appropriate course plan and numbers. Missouri students should refer to Cooperative Program Information.

(6150 41.0101)

Science Department

Vocational Certificate

Prerequisite for Required Courses

Note: The student must take the prerequisite, CHEM 122, or have taken the equivalent course. For a waiver, contact the assistant dean.

First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 135</td>
<td>Principles of Cell and Molecular Biology</td>
<td>4</td>
</tr>
<tr>
<td>BIOT 160</td>
<td>Introduction to Biotechnology*</td>
<td>2</td>
</tr>
<tr>
<td>BIOT 165</td>
<td>Laboratory Safety*</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 122</td>
<td>Principles of Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>MATH 133</td>
<td>Technical Mathematics I or higher*</td>
<td>5</td>
</tr>
</tbody>
</table>

TOTAL CREDIT HOURS: 15

Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 230</td>
<td>Microbiology*</td>
<td>3</td>
</tr>
<tr>
<td>BIOT 260</td>
<td>Biotechnology Methods*</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 140</td>
<td>Principles of Organic &amp; Biological Chemistry*</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 133</td>
<td>Applied Physics*</td>
<td>5</td>
</tr>
</tbody>
</table>

TOTAL CREDIT HOURS: 18

Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Business Administration, A.A.S.

Business is more competitive than ever before. People running businesses will be judged by how well they manage change, stay ahead of trends and learn the latest theories. JCCC's business administration career program can train you in the many skills required to manage a variety of businesses.

Focusing on the development of decision-making, organizational and supervisory skills, the program offers professional courses in management, marketing, economics, accounting, finance, communications, business law and data processing. These are combined with a core of general education courses to ensure that students receive a well-rounded curriculum.

Graduates have opportunities in entry-level management and supervisory positions in a variety of businesses. Johnson County's continued growth as the business center for the area means job opportunities are available.

(2430 52.0101)

Business Administration

Associate of Applied Science Degree

First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 121</td>
<td>Composition I*</td>
<td>3</td>
</tr>
<tr>
<td>MATH 120</td>
<td>Business Math or higher*</td>
<td>3</td>
</tr>
<tr>
<td>BUS 121</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 225</td>
<td>Human Relations</td>
<td>3</td>
</tr>
<tr>
<td>CIS 124</td>
<td>Introduction to Computer Concepts and Applications</td>
<td>3</td>
</tr>
<tr>
<td>and CPCA/CDTP elective</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Note: CPCA 105/106 will not meet this one hour requirement.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>or CPCA/CDTP electives</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>or CIS 134</td>
<td>Programming Fundamentals</td>
<td>4</td>
</tr>
<tr>
<td>TOTAL CREDIT HOURS</td>
<td>16</td>
<td></td>
</tr>
</tbody>
</table>

Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 121</td>
<td>Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>BUS 141</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>or BUS 145</td>
<td>Small Business Management</td>
<td>3</td>
</tr>
<tr>
<td>BUS 150</td>
<td>Business Communications*</td>
<td>3</td>
</tr>
<tr>
<td>ECON 230</td>
<td>Economics I</td>
<td>3</td>
</tr>
<tr>
<td>HIST 141</td>
<td>U.S. History Since 1877</td>
<td>3</td>
</tr>
<tr>
<td>Health and/or Physical Education Elective</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>TOTAL CREDIT HOURS</td>
<td>16</td>
<td></td>
</tr>
</tbody>
</table>

Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 122</td>
<td>Accounting II*</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 138</td>
<td>Business Ethics</td>
<td>1</td>
</tr>
<tr>
<td>ECON 231</td>
<td>Economics II</td>
<td>3</td>
</tr>
<tr>
<td>BUS 230</td>
<td>Marketing</td>
<td>3</td>
</tr>
<tr>
<td>BUS 261</td>
<td>Business Law I</td>
<td>3</td>
</tr>
<tr>
<td>HUM 122</td>
<td>Introduction to Humanities</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL CREDIT HOURS</td>
<td>16</td>
<td></td>
</tr>
</tbody>
</table>

Fourth Semester
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 222</td>
<td>Managerial Accounting*</td>
<td>3</td>
</tr>
<tr>
<td>BUS 123</td>
<td>Personal Finance</td>
<td>3</td>
</tr>
<tr>
<td>or BUS 215</td>
<td>Savings and Investments</td>
<td>3</td>
</tr>
<tr>
<td>BUS 263</td>
<td>Business Law II*</td>
<td>3</td>
</tr>
<tr>
<td>BUS 243</td>
<td>Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>or BUS 235</td>
<td>Introduction to International Business</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 130</td>
<td>Environmental Science</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

**TOTAL CREDIT HOURS: 16**  
**TOTAL PROGRAM CREDIT HOURS: 64**

### Recommended Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 120</td>
<td>Management Attitudes and Motivation</td>
<td>3</td>
</tr>
<tr>
<td>BUS 140</td>
<td>Principles of Supervision</td>
<td>3</td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required

### Business-Logistics Mgt, A.A.S.

This program focuses not only on those who currently work in a logistics career but also those who wish to test their interest and want more knowledge about that field. The program stretches all employees, including management personnel, professionally. Students receive information and training that can lead them to one of hundreds of careers tied to logistics. In addition to classroom knowledge, students receive current insights from professionals in the field.

The JCCC business logistics management program is offered to Johnson County residents in cooperation with Metropolitan Community Colleges of Kansas City. Related courses are taken at JCCC. You must be accepted as a student to JCCC and accepted into the program by MCC. Students must be residents of Johnson County in order to receive in-state tuition rates. Consult with a JCCC counselor for more information.

Program courses and credit hours are subject to change because of requirement changes at the degree-granting institution. Contact MCC-Blue River at 816-220-6532 or visit www.mcckc.edu

For enrollment information regarding this cooperative program, go to Cooperative Program Information.

### Associate of Applied Science

Degree Granted by Metropolitan Community College

### General Education Requirements-can be taken at JCCC

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 121</td>
<td>Composition I*</td>
<td>3</td>
</tr>
<tr>
<td>ECON 230</td>
<td>Economics I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 120</td>
<td>Business Mathematics*</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 116</td>
<td>Intermediate Algebra or higher*</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 130</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>or SOC 122</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>SPD 121</td>
<td>Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>or SPD 125</td>
<td>Personal Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

### American Institutions

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 140</td>
<td>U.S. History to 1877</td>
<td>3</td>
</tr>
<tr>
<td>or HIST 141</td>
<td>U.S. History Since 1877</td>
<td>3</td>
</tr>
<tr>
<td>or POLS 122</td>
<td>Political Science</td>
<td>3</td>
</tr>
</tbody>
</table>
POLS 124 American National Government.........................3
or
POLS 126 State and Local Government..........................3

**Specific Program Requirements taken at JCCC**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 121</td>
<td>Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>BUS 141</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BUS 230</td>
<td>Marketing</td>
<td>3</td>
</tr>
<tr>
<td>BUS 261</td>
<td>Business Law I</td>
<td>3</td>
</tr>
<tr>
<td>CIS 124</td>
<td>Introduction to Computer Concepts and Applications</td>
<td>3</td>
</tr>
</tbody>
</table>
| or
| CPCA 128    | PC Applications: Office 2003                             | 3       |
| Electives   |                                                          | 6       |

Note: Electives may be any non-developmental courses.

**Specific Program Requirements-taken at MCC**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>KSS 300</td>
<td>Affiliate Social Science</td>
<td>1-3</td>
</tr>
<tr>
<td>KSCL 210</td>
<td>Logistics Management</td>
<td>3</td>
</tr>
<tr>
<td>KSCL 211</td>
<td>Operations Management</td>
<td>3</td>
</tr>
<tr>
<td>KSCL 212</td>
<td>Transportation Operation and Management</td>
<td>3</td>
</tr>
<tr>
<td>KSCL 213</td>
<td>Warehouse and Distribution Centers</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Program Credit Hours**...........................................64-66

**Specific Program Electives**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 111</td>
<td>Small Business Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 122</td>
<td>Accounting II*</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 135</td>
<td>Computerized Accounting Applications*</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 221</td>
<td>Cost Accounting*</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 222</td>
<td>Managerial Accounting*</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 231</td>
<td>Intermediate Accounting I*</td>
<td>3</td>
</tr>
<tr>
<td>BOT 103</td>
<td>Business English</td>
<td>3</td>
</tr>
<tr>
<td>BUS 121</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 123</td>
<td>Personal Finance</td>
<td>3</td>
</tr>
<tr>
<td>BUS 140</td>
<td>Principles of Supervision</td>
<td>3</td>
</tr>
<tr>
<td>BUS 145</td>
<td>Small Business Management</td>
<td>3</td>
</tr>
<tr>
<td>BUS 225</td>
<td>Human Relations</td>
<td>3</td>
</tr>
<tr>
<td>BUS 243</td>
<td>Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>BUS 263</td>
<td>Business Law II*</td>
<td>3</td>
</tr>
<tr>
<td>ENTR 120</td>
<td>Introduction to Entrepreneurship</td>
<td>2</td>
</tr>
<tr>
<td>FASH 121</td>
<td>Fashion Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 125</td>
<td>Fundamentals of Advertising</td>
<td>3</td>
</tr>
<tr>
<td>MKT 121</td>
<td>Retail Management</td>
<td>3</td>
</tr>
<tr>
<td>MKT 133</td>
<td>Salesmanship</td>
<td>3</td>
</tr>
<tr>
<td>SPD 128</td>
<td>Business and Professional Speech</td>
<td>3</td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required

**Administrative Assistant, A.A.S.**

This degree program prepares students for positions as supervisors and managers in automated office environments. Emphasis is on the development of communications, decision-making, organizational and management skills; and knowledge of software options, hardware components, applications and concepts. This program is designed to prepare you to function in the electronic office by using a mix of vocational, technical and academic training.

(2680 52.0401)

Business Office Technology

**Associate of Applied Science Degree**

**Prerequisite for Required Course**
Note: Prior to beginning the program, the student must take the following prerequisite, or have taken the equivalent transfer course, or have passed the waiver test (if applicable), or have obtained a waiver from the program administrator.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOT 105</td>
<td>Keyboarding and Formatting I</td>
<td>3</td>
</tr>
</tbody>
</table>

**First Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOT 106</td>
<td>Intro to Business Computer Applications*</td>
<td>3</td>
</tr>
<tr>
<td>MATH 120</td>
<td>Business Mathematics*</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 121</td>
<td>Composition I*</td>
<td>3</td>
</tr>
<tr>
<td>BOT 110</td>
<td>Skillbuilding I*</td>
<td>1</td>
</tr>
<tr>
<td>BOT 103</td>
<td>Business English</td>
<td>3</td>
</tr>
<tr>
<td>BOT 130</td>
<td>Office Systems Concepts</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL CREDIT HOURS: 17

**Second Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOT 155</td>
<td>Word Processing Application I*</td>
<td>2</td>
</tr>
<tr>
<td>BUS 225</td>
<td>Human Relations</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 121</td>
<td>Accounting I*</td>
<td>3</td>
</tr>
<tr>
<td>BUS 121</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>CFPCA 141</td>
<td>Internet I*</td>
<td>1</td>
</tr>
<tr>
<td>BOT 150</td>
<td>Records Management</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL CREDIT HOURS: 15

**Third Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAW 121</td>
<td>Introduction to Law</td>
<td>3</td>
</tr>
<tr>
<td>BOT 125</td>
<td>Document Formatting*</td>
<td>1</td>
</tr>
<tr>
<td>BUS 140</td>
<td>Principles of Supervision</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BUS 141</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BOT 255</td>
<td>Word Processing Applications II*</td>
<td>2</td>
</tr>
<tr>
<td>BUS 150</td>
<td>Business Communications*</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL CREDIT HOURS: 15

**Fourth Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 132</td>
<td>Survey of Economics</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECON 230</td>
<td>Economics I</td>
<td>3</td>
</tr>
<tr>
<td>BOT 275</td>
<td>Office Internship I*</td>
<td>1</td>
</tr>
<tr>
<td>BUS 243</td>
<td>Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>BOT 265</td>
<td>Computerized Office Applications*</td>
<td>3</td>
</tr>
<tr>
<td>BOT 260</td>
<td>Desktop Publishing for the Office*</td>
<td>3</td>
</tr>
<tr>
<td>BOT Electives</td>
<td></td>
<td>4</td>
</tr>
</tbody>
</table>

TOTAL CREDIT HOURS: 17

TOTAL PROGRAM CREDIT HOURS: 64

**BOT Electives**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOT 118</td>
<td>Skillbuilding II*</td>
<td>1</td>
</tr>
<tr>
<td>BOT 175</td>
<td>Conflict in the Workplace</td>
<td>1</td>
</tr>
<tr>
<td>BOT 180</td>
<td>Business Spreadsheet Applications*</td>
<td>1</td>
</tr>
<tr>
<td>BOT 185</td>
<td>Business Database Applications*</td>
<td>1</td>
</tr>
<tr>
<td>BOT 205</td>
<td>Professional Image Development</td>
<td>1</td>
</tr>
<tr>
<td>BOT 210</td>
<td>Working in Teams</td>
<td>1</td>
</tr>
<tr>
<td>BOT 280</td>
<td>Office Internship II*</td>
<td>1</td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required
Administrative Assistant with Legal Emphasis, A.A.S.

This degree program prepares students for administrative duties in the law office and other legal settings. The program combines training in the latest technical computer skills with specialized course work unique to the legal profession, including exposure to legal practices, preparation, and practical application of documents and terminology used in the legal office.

(2780 22.0301)

Business Office Technology

Associate of Applied Science Degree

Prerequisite for Required Courses

Note: Prior to the beginning of the program, the student must take the following prerequisite, or have taken the equivalent transfer course, or have passed the waiver test, or have obtained a waiver from the program administrator.

BOT 105 Keyboarding and Formatting I.........................3

First Semester

BOT 106 Intro to Business Computer Applications*....................3
LAW 121 Introduction to Law..................................3
BOT 103 Business English.....................................3
BOT 130 Office Systems Concepts..............................3
ENGL 121 Composition I*.......................................3
BOT 115 Electronic Calculators..................................1
Health and/or Physical Education Elective.........................1
TOTAL CREDIT HOURS..................................17

Second Semester

BOT 155 Word Processing Application I*..............................2
BOT 110 Skillbuilding I*.....................................1
BOT 150 Records Management..................................3
MATH 120 Business Mathematics*..............................3
BUS 150 Business Communications*..............................3
ACCT 111 Small Business Accounting............................3
or
ACCT 121 Accounting I.....................................3
CPCA 141 Internet I*..........................................1
TOTAL CREDIT HOURS..................................16

Third Semester

LAW 223 Computer Applications in the Law Office*....................3
BOT 160 Legal Transcription*....................................3
BUS 225 Human Relations.....................................3
BOT 255 Word Processing Applications II*.........................2
BOT 125 Document Formatting*..................................1
BOT Electives..................................................3
TOTAL CREDIT HOURS..................................15

Fourth Semester

ECON 132 Survey of Economics.....................................3
or
ECON 230 Economics I.........................................3
BOT 275 Office Internship I*...................................1
BOT 265 Computerized Office Applications*........................3
BUS 140 Principles of Supervision...............................3
or
BUS 141 Principles of Management...............................3
Administrative Assistant with Medical Emphasis, A.A.S.

This degree program prepares students to pursue an administrative career in the medical profession. The program combines training in the latest technical and computer skills with specialized course work unique to the medical profession. Beginning students and employed medical personnel will find this program invaluable for career advancement.

(2790 51.0710)

Business Office Technology

Associate of Applied Science Degree

Prerequisite for Required Course

Note: Prior to beginning the program, the student must take the following prerequisite, or have taken the equivalent transfer course, or have passed the waiver test, or have have obtained a waiver from the program administrator.

BOT 105 Keyboarding and Formatting I............................3

First Semester

BOT 106 Intro to Business Computer Applications*.............3
AAC 130 Medical Terminology........................................3
ENGL 121 Composition I*................................................3
BOT 103 Business English................................................3
BOT 130 Office Systems Concepts......................................3
Health and/or Physical Education Elective..................1
TOTAL CREDIT HOURS...............................................16

Second Semester

BOT 155 Word Processing Application I*..............................2
BOT 110 Skillbuilding I*..................................................1
BOT 170 Medical Coding and Billing*.................................3
BOT 150 Records Management...........................................3
BOT 115 Electronic Calculators.........................................1
MATH 120 Business Mathematics*.................................3
BUS 225 Human Relations................................................3
TOTAL CREDIT HOURS...............................................16

Third Semester

BOT 125 Document Formatting*........................................1
ACCT 111 Small Business Accounting...........................3
ACCT 121 Accounting I ........................................... 3
BOT 122 Medical Keyboarding* .................................. 1
LAW 121 Introduction to Law ..................................... 3
BUS 150 Business Communications* ......................... 3
BOT 255 Word Processing Applications II* ....................... 2
Humanities Elective ............................................... 3
TOTAL CREDIT HOURS ..................................... 16

Fourth Semester
ECON 132 Survey of Economics ................................. 3
or
ECON 230 Economics I ........................................... 3
BOT 165 Medical Transcription* ................................. 3
BOT 265 Computerized Office Applications* ..................... 3
BOT 275 Office Internship I* .................................... 1
BUS 140 Principles of Supervision ................................ 3

or
BUS 141 Principles of Management ............................ 3
BOT Electives .................................................. 2
TOTAL CREDIT HOURS ..................................... 16
TOTAL PROGRAM CREDIT HOURS............................. 64

BOT Electives
BOT 118 Skillbuilding II* ........................................ 1
BOT 175 Conflict in the Workplace ............................... 1
BOT 180 Business Spreadsheet Applications* .................. 1
BOT 185 Business Database Applications* ....................... 1
BOT 205 Professional Image Development ....................... 1
BOT 210 Working in Teams ...................................... 1
BOT 280 Office Internship II* ................................ 1
*Prerequisite/Corequisite required

Administrative Support Specialist Certificate
The administrative support specialist certificate prepares students for executive
and/or administrative assistant duties in the office. The program provides training
in the latest technical, computer and software skills.
(4690 52.0401)
Business Office Technology

Vocational Certificate
Prerequisite for Required Course
Note: Prior to beginning the program, the student must take
the following prerequisite, or have taken an equivalent
transfer course, or have passed the waiver test, or have
obtained a waiver from the program administrator.

BOT 105 Keyboarding and Formatting I ....................... 3

Required Courses
BOT 110 Skillbuilding I* ......................................... 1
BOT 130 Office Systems Concepts ................................ 3
BOT 125 Document Formatting* ................................ 1
BOT 103 Business English ....................................... 3
BOT 106 Intro to Business Computer Applications* .......... 3
BUS 225 Human Relations ....................................... 3
BOT 155 Word Processing Application I* ....................... 2
BOT 115 Electronic Calculators .................................. 1
BOT 150 Records Management .................................. 3
The medical administrative assistant entrepreneurship certificate prepares students to open their own service business providing administrative assistance to the medical profession. This certificate is designed to provide the student with...
Vocational Certificate

Prerequisites for Required Courses

Note: Prior to beginning the program, the student must take the following prerequisites, or have taken the equivalent transfer courses, or have passed the waiver test (where applicable), or have obtained a waiver from the program administrator.

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAC 130</td>
<td>Medical Terminology</td>
<td>3</td>
</tr>
<tr>
<td>BOT 105</td>
<td>Keyboarding and Formatting I or approval</td>
<td>3</td>
</tr>
<tr>
<td>BOT 106</td>
<td>Intro to Business Computer Applications*</td>
<td>3</td>
</tr>
<tr>
<td>BOT 110</td>
<td>Skillbuilding I*</td>
<td>1</td>
</tr>
<tr>
<td>BOT 130</td>
<td>Office Systems Concepts</td>
<td>3</td>
</tr>
<tr>
<td>BOT 155</td>
<td>Word Processing Applications I or approval*</td>
<td>2</td>
</tr>
<tr>
<td>BOT 170</td>
<td>Medical Coding and Billing*</td>
<td>3</td>
</tr>
<tr>
<td>ENTR 120</td>
<td>Introduction to Entrepreneurship</td>
<td>2</td>
</tr>
<tr>
<td>ENTR 180</td>
<td>Opportunity Analysis</td>
<td>2</td>
</tr>
<tr>
<td>BOT 255</td>
<td>Word Processing Applications II*</td>
<td>2</td>
</tr>
<tr>
<td>BOT 265</td>
<td>Computerized Office Applications*</td>
<td>3</td>
</tr>
<tr>
<td>BOT 180</td>
<td>Business Spreadsheet Applications*</td>
<td>1</td>
</tr>
<tr>
<td>BOT 185</td>
<td>Business Database Applications*</td>
<td>1</td>
</tr>
<tr>
<td>ENTR 142</td>
<td>Fast Trac Business Plan</td>
<td>3</td>
</tr>
<tr>
<td>BOT 275</td>
<td>Office Internship I*</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTAL PROGRAM CREDIT HOURS</strong></td>
<td></td>
<td><strong>29</strong></td>
</tr>
</tbody>
</table>

**Additional Suggested Coursework**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENTR 160</td>
<td>Legal Issues for Small Business</td>
<td>2</td>
</tr>
<tr>
<td>ENTR 220</td>
<td>Entrepreneurial Marketing*</td>
<td>2</td>
</tr>
<tr>
<td>ENTR 195</td>
<td>Franchising*</td>
<td>3</td>
</tr>
<tr>
<td>ENTR 131</td>
<td>Financial Management for Small Business*</td>
<td>2</td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required

Medical Office Assistant Certificate

This certificate program is designed for students who want to work in doctors’ offices and hospital offices. This program will provide training for students going into entry-level positions or those upgrading existing skills.

**Required Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOT 105</td>
<td>Keyboarding and Formatting I or approval</td>
<td>3</td>
</tr>
<tr>
<td>BOT 155</td>
<td>Word Processing Applications I or approval*</td>
<td>2</td>
</tr>
<tr>
<td>CPCA 110</td>
<td>Spreadsheet on Microcomputers I or approval*</td>
<td>1</td>
</tr>
<tr>
<td>CPCA 114</td>
<td>Databases on Microcomputers I or approval*</td>
<td>1</td>
</tr>
<tr>
<td>CPCA 141</td>
<td>Internet I or approval*</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTAL PROGRAM CREDIT HOURS</strong></td>
<td></td>
<td><strong>29</strong></td>
</tr>
</tbody>
</table>

Prerequisite for Required Courses:

Note: Prior to beginning the program, the student must take the following prerequisite, or have taken an equivalent transfer course, or have passed the waiver test.
Medical Transcription Certificate

The certificate program will prepare the student for entry-level employment as a medical transcriptionist by providing the basic knowledge and skills required to transcribe medical dictation with accuracy and clarity, meet timelines, and apply the principles of professional and ethical conduct.

(5410 52.0401)

Business Office Technology

Vocational Certificate

Prerequisite for Required Courses:

Note: Prior to beginning the program, the student must take the prerequisite, or have taken the equivalent transfer course, or have passed the waiver test (if applicable), or have obtained a waiver from the program administrator.

Office Careers Certificate

At the completion of this 18-credit-hour certificate, students demonstrate proficiency in office skills, including computer and word processing knowledge. This certificate program prepares students to enter an office career in a minimal
Vocational Certificate

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOT 103</td>
<td>Business English</td>
<td>3</td>
</tr>
<tr>
<td>BOT 105</td>
<td>Keyboarding and Formatting I</td>
<td>3</td>
</tr>
<tr>
<td>BOT 110</td>
<td>Skillbuilding I*</td>
<td>1</td>
</tr>
<tr>
<td>BOT 125</td>
<td>Document Formatting*</td>
<td>1</td>
</tr>
<tr>
<td>BOT 130</td>
<td>Office Systems Concepts</td>
<td>3</td>
</tr>
<tr>
<td>BOT 155</td>
<td>Word Processing Application I*</td>
<td>2</td>
</tr>
<tr>
<td>BOT 115</td>
<td>Electronic Calculators</td>
<td>1</td>
</tr>
<tr>
<td>BOT 120</td>
<td>Machine Transcription*</td>
<td>1</td>
</tr>
<tr>
<td>BOT 106</td>
<td>Intro to Business Computer Applications*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>TOTAL PROGRAM CREDIT HOURS</td>
<td>18</td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisites required

Owning/Managing a Virtual Home Office Certificate

The certificate provides the opportunity for students to add competencies in the area of entrepreneurship, business planning and managing as well as Web page creation and desktop publishing skills.

Prerequisite: Completion of the virtual home office certificate (first and second semester courses) as well as BOT 105.

Virtual Home Office Certificate

The certificate is designed for students conducting all or part of their job duties in a remote location or home office as well as students seeking career opportunities where they can work from a home office.
Vocational Certificate

Note: Prior to beginning the program, the student must take the following prerequisite, or have taken the equivalent transfer course, or have passed the waiver test (if applicable), or have obtained a waiver from the program administrator.

Prerequisite for Required Courses

BOT 105 Keyboarding and Formatting I.........................3

Required Courses

BOT 130 Office Systems Concepts.................................3
BOT 103 Business English...........................................3
BOT 155 Word Processing Application I*.........................2
CPCA 141 Internet I*.................................................1
ACCT 111 Small Business Accounting............................3
CPCA 151 Internet II*..................................................1
BOT 275 Office Internship I*...........................................
BOT 255 Word Processing Applications II*........................2
BOT 106 Intro to Business Computer Applications*..............3
TOTAL PROGRAM CREDIT HOURS....................................19
*Prerequisite/Corequisite required

Virtual Medical Office Certificate

The certificate is designed for students working or planning to work in the medical business office from a remote location or their home.

Prerequisite: Completion of virtual home office certificate.

Vocational Certificate

Prerequisite for Required Courses

Note: Prior to beginning the program, the student must take the following prerequisites, or have taken the equivalent transfer courses, or have passed the waiver test (where applicable), or obtain a waiver from the program administrator.

BOT 105 Keyboarding and Formatting I.........................3
BOT 106 Intro to Business Computer Applications*..............3
BOT 155 Word Processing Application I*.........................2

Required Courses

BOT 165 Medical Transcription*.................................3
AAC 130 Medical Terminology....................................3
BOT 170 Medical Coding and Billing*............................3
BIOL 140 Human Anatomy.............................................4
BOT 270 Advanced Medical Transcription*........................3
TOTAL PROGRAM CREDIT HOURS..................................16
*Prerequisite/Corequisite required
Civil Engineering Technology, A.A.S.

Civil engineering technicians use theory and practical application in planning, designing, constructing, inspecting and maintaining civil engineering projects. Job duties can include performing land surveys, creating civil engineering drawings using computer-aided drafting, assisting engineers with design, and project management.

JCCC’s civil engineering technology program offers a broad base of instruction in mathematics, engineering design, drawing interpretation, computer-aided drafting, construction methods and communication skills. The program will qualify graduates for a variety of entry-level positions in design firms, construction companies, public agencies. Successful completion of 64 hours from the civil engineering technology curriculum will lead to an associate of applied science degree.

(2210 15.0201)

Civil Engineering Technology

Associate of Applied Science Degree

First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRAF 129</td>
<td>Interpreting Architectural Drawings</td>
<td>2</td>
</tr>
<tr>
<td>ENGR 131</td>
<td>Engineering Graphics I*</td>
<td>4</td>
</tr>
<tr>
<td>MATH 133</td>
<td>Technical Mathematics I*</td>
<td>4</td>
</tr>
<tr>
<td>CET 125</td>
<td>Construction Specifications*</td>
<td>2</td>
</tr>
<tr>
<td>CET 105</td>
<td>Construction Methods</td>
<td>3</td>
</tr>
<tr>
<td>INDT 155</td>
<td>Workplace Skills</td>
<td>1</td>
</tr>
<tr>
<td>TOTAL</td>
<td>CREDIT HOURS</td>
<td>16</td>
</tr>
</tbody>
</table>

Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CET 129</td>
<td>Construction Management</td>
<td>3</td>
</tr>
<tr>
<td>DRAF 244</td>
<td>Land Development Desktop*</td>
<td>2</td>
</tr>
<tr>
<td>DRAF 225</td>
<td>Civil Drafting*</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 121</td>
<td>Composition I*</td>
<td>3</td>
</tr>
<tr>
<td>MATH 134</td>
<td>Technical Mathematics II*</td>
<td>5</td>
</tr>
<tr>
<td>TOTAL</td>
<td>CREDIT HOURS</td>
<td>16</td>
</tr>
</tbody>
</table>

Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CET 127</td>
<td>Construction Estimating*</td>
<td>3</td>
</tr>
<tr>
<td>CET 211</td>
<td>Technical Statics and Design*</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 180</td>
<td>Engineering Land Surveying I*</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 123</td>
<td>Technical Writing I*</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 138</td>
<td>Business Ethics</td>
<td>1</td>
</tr>
<tr>
<td>Humanities Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>CREDIT HOURS</td>
<td>16</td>
</tr>
</tbody>
</table>

Fourth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CET 140</td>
<td>Civil Engineering Materials*</td>
<td>3</td>
</tr>
<tr>
<td>CET 270</td>
<td>Fluid Mechanics*</td>
<td>3</td>
</tr>
<tr>
<td>DRAF 252</td>
<td>Structural Drafting*</td>
<td>3</td>
</tr>
<tr>
<td>CET 150</td>
<td>Construction Safety</td>
<td>3</td>
</tr>
<tr>
<td>Health/Physical Education Elective</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Social Science/Economics Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>CREDIT HOURS</td>
<td>16</td>
</tr>
<tr>
<td>TOTAL PROGRAM CREDIT HOURS</td>
<td>64</td>
<td></td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required

Construction Management Certificate

The construction management certificate is designed to address the management training needs of supervisors in the construction industry. Necessary management
skills include construction methods, safety, estimating and management; personnel supervision; business management; and financial and data management. Construction management practices are directed toward those encountered by small- to medium-sized contractors.

Civil Engineering Technology

Vocational Certificate

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRAF 129</td>
<td>Interpreting Architectural Drawings</td>
<td>2</td>
</tr>
<tr>
<td>CET 105</td>
<td>Construction Methods</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 111</td>
<td>Small Business Accounting</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>ACCT 121 Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>BUS 140</td>
<td>Principles of Supervision</td>
<td>3</td>
</tr>
<tr>
<td>MATH 120</td>
<td>Business Math or higher*</td>
<td>3</td>
</tr>
<tr>
<td>CET 125</td>
<td>Construction Specifications*</td>
<td>2</td>
</tr>
<tr>
<td>CET 127</td>
<td>Construction Estimating*</td>
<td>3</td>
</tr>
<tr>
<td>CET 129</td>
<td>Construction Management</td>
<td>3</td>
</tr>
<tr>
<td>CET 130</td>
<td>Management Electives</td>
<td>2</td>
</tr>
<tr>
<td>CET 150</td>
<td>Construction Safety</td>
<td>3</td>
</tr>
<tr>
<td>INDT 155</td>
<td>Workplace Skills</td>
<td>1</td>
</tr>
</tbody>
</table>

TOTAL PROGRAM CREDIT HOURS 28

Approved Management Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 141</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BUS 145</td>
<td>Small Business Management</td>
<td>3</td>
</tr>
<tr>
<td>BUS 243</td>
<td>Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>BUS 261</td>
<td>Business Law I</td>
<td>3</td>
</tr>
<tr>
<td>ENTR 131</td>
<td>Financial Management for Small Business*</td>
<td>2</td>
</tr>
<tr>
<td>ENTR 160</td>
<td>Legal Issues for Small Business</td>
<td>2</td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required

Engineered Plumbing Systems Certificate

This certificate is designed to address the needs of engineers and technicians in the plumbing design industry. Successful completion of this certificate will help the student prepare for the Certified in Plumbing Engineering (CIPE) examination.

Civil Engineering Technology

Vocational Certificate

First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CET 120</td>
<td>Engineered Plumbing Systems I</td>
<td>3</td>
</tr>
</tbody>
</table>

Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CET 122</td>
<td>Engineered Plumbing Systems II</td>
<td>3</td>
</tr>
<tr>
<td>CET 270</td>
<td>Fluid Mechanics*</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL PROGRAM CREDIT HOURS 9

*Prerequisite/Corequisite required

Computer Information Systems, A.A.S.

Employment opportunities for programmer analysts continue to grow as the need for sophisticated information systems increases in the business environment. Increased demand will focus on the areas of object-oriented programming,
database management and client-server applications. JCCC’s information systems program focuses on developing the skills needed for entry-level programmer analysts and related positions. The associate of applied science degree in information systems offers an integrated program of study designed to prepare professionals with skills that are applicable to different hardware systems. With its emphasis on practical experience and on currency in the areas of software and curriculum, the program has much to offer the information systems professional who wishes to upgrade or broaden his or her knowledge of the field.

The associate of applied science degree is awarded for successful completion of 69 credit hours.

Computing Sciences and Information Technology Department

Associate of Applied Science Degree

Prerequisite for Required Course

Note: Prior to beginning the information systems program, the student must take the following prerequisite, or have taken an equivalent transfer course, or have passed the waiver test, or have obtained a waiver from the program administrator:

CIS 134 Programming Fundamentals.............................4

Required Courses

First Semester

CS 200 Concepts of Programming Algorithms Using C++*........4
or
CS 205 Concepts of Programming Algorithms using JAVA*......4
CIM 133 Screen Design*.......................................4
ACCT 121 Accounting I.........................................3
ENGL 121 Composition I*......................................3
MATH 171 College Algebra*....................................3
or
Any Precalculus/Calculus Course*.................................3
TOTAL CREDIT HOURS........................................17

Second Semester

Level One Programming Language
Option.................................................................4
CS 210 Discrete Structures I*....................................3
CIS 162 Database Programming*.................................4
CIS 242 Introduction to System Design and Analysis*.........3
SPD 125 Personal Communication................................3
or
ENGL 123 Technical Writing I*..................................3
TOTAL CREDIT HOURS........................................17

Third Semester

Level Two Programming Language
Option.................................................................4
CIS 258 Operating Systems*.....................................3
or
CIS 204 UNIX Operating System*.................................3
CIS Elective..................................................................3
Humanities/Art Elective.............................................3
Social Science and/or Economic Electives......................3
Health and/or Physical Education Elective....................1
TOTAL CREDIT HOURS........................................17
Fourth Semester

Level Three Programming Language
Option...............................................4
CIS 264 Application Development and Programming*.............4
CIS 260 Database Management*........................................4
CIS 262 Project Management*..................................3
CIS Elective..................................................................3
TOTAL CREDIT HOURS.................................................18
TOTAL PROGRAM CREDIT HOURS.............................69
Each student should select one option area from the following list.
All three levels of programming language must be from the same option area.

Level One Programming Language Options:

Option in C++:
CIS 235 Object-Oriented Programming Using C++*.............4
or
CS 250 Basic Data Structures using C++*.....................4

Option in JAVA:
CS 255 Basic Data Structures using JAVA*....................4

Option in VISUAL BASIC:
CIS 138 Visual Basic .Net*....................................4

Level Two Programming Language Options:

Option in C++:
CIS 235 Object-Oriented Programming Using C++*.............4
or
CS 250 Basic Data Structures using C++*.....................4

Option in JAVA:
CIS 240 Advanced Topics in JAVA I*...........................4

Option in VISUAL BASIC:
CIS 238 Visual Basic Intermediate Topics*....................4

Level Three Programming Language Options:

Option in C++:
CIS 269 GUI Programming*........................................4

Option in JAVA:
CIS 280 Advanced Topics in JAVA II*.............................4

Option in VISUAL BASIC:
CIS 277 Active Server Pages.Net*..............................4

Six hours of computer information systems electives are to be selected from the following list:

CS 180 Introduction to Artificial Intelligence*..............3
CS 200 Concepts of Programming Algorithms Using C++*....4
Database Certificate

Completion of this certificate, offered through the computer information systems program, will help to prepare students for future careers as database specialists or for one of many other information systems careers in which knowledge of database concepts, products and technologies is important. Students will be able to design and build personal databases using Access. The student will acquire a strong foundational knowledge in an object-oriented programming language (Visual Basic) and will work with Web-enabled databases, SQL and other database products, as well as attaining formal systems analysis and design skills.

(5190 11.0202)

Computing Sciences and Information Technology Department

Vocational Certificate

Note: Prior to beginning the database vocational certificate program the student must take the following prerequisite or have taken an equivalent transfer course, or have passed the waiver test, or have obtained a waiver from the program administrator.

CPCA 105 Introduction to Personal Computers: Windows............1

First Semester

CIS 134 Programming Fundamentals.................................4
CPCA 114 Databases I: MS Access*..............................1
CPCA 115 Databases II: MS Access*..............................2
CPCA 141 Internet I*........................................1
TOTAL CREDIT HOURS........................................8

Second Semester

CPCA 138 Windows for Microcomputers*..........................1
CIS 138 Visual Basic .Net*....................................1
CWEB 135 Web-Enabled Databases I using Access...............1
CWEB 145 Web-Enabled Databases II using Access..............1
CPCA 117 Databases III: MS Access*............................1
TOTAL CREDIT HOURS.......................................8
Third Semester
CIS 238 Visual Basic Intermediate Topics*..........................4
CIS 162 Database Programming*................................4
TOTAL CREDIT HOURS....................................8

Fourth Semester
CIS 260 Database Management*.......................................4
CIS 242 Introduction to System Design and Analysis*............3
TOTAL CREDIT HOURS......................................7
TOTAL PROGRAM CREDIT HOURS.................................31
*Prerequisite/Corequisite required

Desktop Publishing Certificate
Individuals with or without a college degree whose goal is to acquire or improve their personal desktop computer application skills will accomplish that goal in this program. Emphasis is on acquiring results-oriented career business and industry skills. The program is intended for those seeking entry-level positions as well as those currently employed who want to enhance their job skills. It provides current employers or prospective employers tangible evidence of computer competency. Application courses for the certificate are based on a combination of the Windows and Macintosh operating environments. Students will be encouraged to develop a cross-platform mastery.

(4830 11.0202)
Computing Sciences and Information Technology Department

Vocational Certificate

Required Courses

CPCA 105 Introduction to Personal Computers: Windows.........1
CPCA 106 Introduction to Personal Computers: MacIntosh........1
CPCA 134 Managing Your Macintosh*.................................1
or
CPCA 138 Windows for Microcomputers*..............................1
CPCA 123 E-Presentation: MS PowerPoint*............................1
CDTP 135 Desktop Photo Manipulation I: Photoshop*..............1
CDTP 155 Desktop Photo Manipulation II: Photoshop*.............1
CDTP 145 Desktop Illustration I: Illustrator*.......................1
CDTP 165 Desktop Illustration II: Illustrator*.....................1

Select four courses of the following eight:
CDTP 140 Desktop Publishing I: InDesign*............................1
CDTP 160 Desktop Publishing II: InDesign*...........................1
CDTP 131 Desktop Publishing I: QuarkXpress*.......................1
CDTP 151 Desktop Publishing II: QuarkXpress*......................1
CDTP 171 Desktop Publishing III: QuarkXpress*.....................1
CDTP 175 Desktop Photo Manipulation III: Photoshop*............1
CDTP 180 Photoshop for the Web: Photoshop and Image Ready*...1
CDTP 185 Desktop Illustration III: Illustrator*.....................1

Select two courses of the following five:
CPCA 108 Word Processing I: MS Word*..............................1
CPCA 125 Word Processing II: MS Word*.............................1
CPCA 134 Managing Your Macintosh*.................................1
or
CPCA 138 Windows for Microcomputers*.............................1
CWEB 105 Introduction to Web Pages: Dreamweaver*................1
CWEB 106 Introduction to Microsoft FrontPage*.....................1
TOTAL PROGRAM CREDIT HOURS.................................14
*Prerequisite/Corequisite required
Microcomputer Programmer Analyst Certificate

Prior to beginning the microcomputer programmer/analyst vocational certificate program, the student must take the following prerequisite or have taken an equivalent transfer course, or have passed the waiver test, or have obtained a waiver from the program administrator.

(5030 11.0202)
Computing Sciences and Information Technology Department

Vocational Certificate

Prerequisite for Required Courses

Note: Prior to beginning the program, the student must take the following prerequisite, or have taken an equivalent transfer course, or have passed the waiver test (if applicable), or have obtained a waiver from the program administrator.

CIS 134 Programming Fundamentals.............................4

First Semester

CS 200 Concepts of Programming Algorithms Using C++*^.......4
or
CS 205 Concepts of Programming Algorithms using JAVA*.......4
CS 210 Discrete Structures I*.................................3
CIS 162 Database Programming*................................4
TOTAL CREDIT HOURS..................................11

Second Semester

CIS 235 Object-Oriented Programming Using C++*^..............4
or
CS 250 Basic Data Structures using C++*^....................4
or
CS 255 Basic Data Structures using JAVA*....................4
CIS 242 Introduction to System Design and Analysis*..........3
CIS 204 UNIX Operating System*...............................3
TOTAL CREDIT HOURS..................................10

Third Semester

CIS 269 GUI Programming*.....................................4
or
CIS 240 Advanced Topics in JAVA I*...........................4
CIS 262 Project Management*..................................3
CIS 260 Database Management*.................................4
TOTAL CREDIT HOURS..................................11
TOTAL PROGRAM CREDIT HOURS.................................32

*Prerequisite/Corequisite required

Note: ^ CS 200 students must take either CS 250 or CIS 235
Note: ~ CS 205 students must take CS 255

Personal Computer Application Specialist

Individuals with or without a college degree whose goal is to acquire or improve their personal computer application skills will accomplish their goals in this program. Emphasis is on acquiring results-oriented career business and industry skills. The program is intended for those seeking entry-level positions as well as those currently employed who desire to enhance their job skills and take MOUS (Microsoft Office User Specialist) certification tests. It provides employers and
Vocational Certificate

Required Courses

First Semester

CPCA 105  Introduction to Personal Computers: Windows...........1
CPCA 108  Word Processing I: MS Word*..........................1
CPCA 110  Spreadsheets I: MS Excel*...............................1
CPCA 114  Databases I: MS Access*..............................1
CPCA 138  Windows for Microcomputers*.........................1

Second Semester

CPCA 111  Spreadsheets II: MS Excel*...........................1
CPCA 115  Databases II: MS Access*.............................2
CPCA 123  E-Presentation: MS PowerPoint*.......................1
CPCA 125  Word Processing II: MS Word*........................1
CPCA 141  Internet I*..........................................1
CPCA Elective........................................1
TOTAL CREDIT HOURS..................................12

CPCA Electives

CPCA 118  Groupware*........................................1
CPCA 121  Introduction to Project Management*..................1
CPCA 151  Internet II*.........................................1
CPCA 161  Introduction to Web Pages using HTML*..............1

NOTE: A student can elect to take CPCA 128, Personal Computer Applications, in lieu of CPCA 108, CPCA 110 and CPCA 123. An additional elective can then be substituted for CPCA 105.

*Prerequisite/Corequisite required

Web Application Certificate

This certificate is designed for those seeking entry-level positions and those who are currently employed and want to improve their job skills and career opportunities relating to Web-oriented applications. This certificate gives an employer tangible evidence of Web-based software skills and competencies. (5610 11.0202)

Computing Sciences and Information Technology Department

Vocational Certificate

Prerequisite for Required Courses

Note: Prior to beginning the program, the student must take the follow prerequisite, or have taken an equivalent course, or have passed the waiver test, or have obtained a waiver from the program administrator.

CPCA 105  Introduction to Personal Computers: Windows........1

First Semester

CWWEB 101  Introduction to the Web using Internet Explorer*......1
Web Developer Advanced Certificate
The Web developer advanced certificate is for the computer professional who wants to acquire the necessary skills to enable clients to interface with databases on the World Wide Web.
(5150 11.0202)
Computing Sciences and Information Technology Department

Vocational Certificate

Prerequisites for Required Courses
Note: Prior to beginning the program, the student must take the following prerequisites, or have taken an equivalent transfer course, or have passed the waiver test (if applicable), or have obtained a waiver from the program administrator.

CIS 134 Programming Fundamentals........................................4
CPCA 161 Introduction to Web Pages using HTML*..................1
CDTP 131 Desktop Publishing I: QuarkXpress*.........................1
CDTP 140 Desktop Publishing I: InDesign*............................1
CDTP 135 Desktop Photo Manipulation I: Photoshop*................1
CIS 162 Database Programming*..........................................1
CS 200 Concepts of Programming Algorithms Using C++*........4
CS 205 Concepts of Programming Algorithms using JAVA*........4
CIS 235 Object-Oriented Programming Using C++*.................4
CS 255 Basic Data Structures using JAVA*............................4
First Semester

CIM 133  Screen Design* ................................. 4
CIS 204  UNIX Operating System* ............................ 3
CIS 240  Advanced Topics in JAVA I* ......................... 4
CIS 260  Database Management* ......................... 4
TOTAL CREDIT HOURS .................................. 15

Second Semester

CIM 130  Interactive Media Concepts .................. 2
CIS 254  UNIX System Administration* .................... 4
CIS 275  Web-Enabled Database Programming* .......... 4
or
CIS 277  Active Server Pages.Net* ....................... 4
CIS 280  Advanced Topics in JAVA II* ................. 4
TOTAL CREDIT HOURS .................................. 14
TOTAL PROGRAM CREDIT HOURS ......................... 29

*Prerequisite/Corequisite required

Advanced Esthetics Certificate

This 100 contact hour course is designed to meet the educational requirements for licensure by the Missouri Board of Cosmetology for estheticians in the cosmetology sciences and meet the needs of students who desire exposure to advanced esthetics techniques. Students will attend 44 hours of lecture/discussion/demonstration, practice 44 hours of integrated lecture/clinical, complete 4 hours assisting in a salon and participate in 8 hours of community service. Topics covered include body treatments, theory of the day spa, airbrush, makeup, microderm abrasion, and manual lymphatic drainage.

Prerequisite: Must possess current esthetics license granted by the Kansas Board of Cosmetology or a current cosmetology license.

(3760 12.0409)
Cosmetology

Area Vocational School Certificate

AVCO 218  Advanced Esthetics Training* ................. 100
Note: TOTAL CONTACT HOURS ......................... 100
*Prerequisite/Corequisite required

Cosmetology, A.A.S.

This degree is designed to facilitate student transfer of a technical education program under the provisions outlined in the Transfer Agreement and Articulation Guide for Kansas Community Colleges, Area Vocational Technical Schools and Technical Colleges for the Associate in Applied Science, dated September 1999. Specifically, this degree may be earned only by a student who has completed the JCCC cosmetology program. A student must have 19 additional credits from JCCC in order to receive a degree from Johnson County Community College. The 45 hours of documented transfer credit will be placed on the student’s record when the student applies for graduation. Students must also meet JCCC admissions, residency and graduation requirements.

Interested students should contact the JCCC Student Success Center for further information prior to enrollment in the sequence of courses.

(2090 12.0401)
Cosmetology

Associate of Applied Science Degree

Sequence of Courses
Cosmetology Certificate

The field of cosmetology relies on creative people who use their ability to visualize shapes and forms for hair design and personal care. Cosmetologists need manual dexterity, an understanding of chemistry and superior client communication skills. This program provides theory and skill development in shampooing, cutting, shaping, curling and coloring hair, as well as manicuring and esthetics.

Employment opportunities are available in beauty salons, department stores, health care and hotel facilities. Entrepreneurship opportunities are also available for cosmetologists who choose to pursue this pathway. Additional employment choices include nail artist, complexion care, cosmetic or beauty supply sales and services, manufacturing technician and color chemist.

Enrollment is limited in the program. Admission requires an interview, testing and a physical examination. Contact the salon at 913-469-8500, ext. 4723 or 2390, for additional information.

(3700 12.0401)

Cosmetology

Area Vocational School Certificate

AVCO 110 Introduction to Cosmetology
AVCO 112 Clinical Cosmetology
AVCO 114 Advanced Cosmetology

Note: TOTAL CONTACT HOURS

*Prerequisite/Corequisite required

Cosmetology Instructor Training Certificate

This 300 contact hour course is designed to meet the educational requirements for licensure by the Kansas Board of Cosmetology for instructors in the cosmetology sciences. Students will attend 40 hours of lecture and participate in 260 hours of observation, clinic supervision, and classroom teaching. Topics covered include instructor characteristics, student motivation, methods and evaluation.

(3740 12.0401)

Cosmetology

Area Vocational School Certificate

AVCO 212 Cosmetology Instructor Training

Note: TOTAL CONTACT HOURS

*Prerequisite/Corequisite required

Esthetics Certificate

Theory and skill development in sanitation, skin sciences, skin treatments, waxing, makeup and business practices are offered. Upon completion of this program, students are prepared for the Kansas State Board of Cosmetology for
Estheticians licensure written and practical exams. Admission requires an
interview, testing and a physical examination. Contact the salon at 913-469-8500,
ext. 4721 or 2390, for additional information.

Area Vocational School Certificate

**AVCO 118** Esthetics ................................................................. 650
Note: TOTAL CONTACT HOURS.................................................... 650

**Nail Technology Certificate**

The program provides theory and skill development in artistic application of
artificial nail services which includes the application of fiberglass and silk wraps,
tips with overlay, sculptured nails, and gels. Pedicures, manicures, and identifying
the various diseases and disorders of the nails will also be taught. Upon
completion of this program, students are prepared for the Kansas State Board of
Cosmetology Onychology licensure written and practical exams. Admission
requires an interview, testing and a physical examination. Contact the Salon at
913-469-8500, ext. 6402 or 2390, for additional information.

Area Vocational School Certificate

**AVCO 102** Nail Technology ...................................................... 350
Note: TOTAL CONTACT HOURS.................................................... 350

**Dental Hygiene, A.A.S.**

A key member of the professional dental team, the licensed dental hygienist is on
the "front line" of patient care, responsible for providing educational, clinical and
therapeutic services that promote total health through good oral health. The
growing public awareness of the benefits of oral health, combined with the growth
of corporate dental plans, has significantly increased the demand for dental care
and has made dental hygiene one of the country's fastest-growing careers. The
demand for dental hygienists is expected to grow 46 percent by 2010. Competitive
salaries and flexible work schedules are added benefits. Students in JCCC's
dental hygiene program prepare for careers as preventive dental professionals,
who have a choice of working in a variety of settings. Upon successful completion
of licensure requirements and board examinations, graduates get jobs in school
systems, nursing homes and dental supply firms, as well as private dental offices.

Fully accredited by the American Dental Association Commission on Dental
Accreditation, this 81-credit-hour program requires four semesters and one
summer session of full-time study. Successful completion leads to an associate of
applied science degree. All dental hygiene students gain important practical
experience working in JCCC's state-of-the-art clinical facility under the supervision
of licensed dental hygienists and dentists.

Enrollment is limited. The deadline for fall semester applications is December 1,
2006. Fall course transcripts are due January 15, 2007. For an application, call
the dental hygiene program at 913-469-3808 or download a copy by clicking
http://www.jccc.net/home/depts/001253

BEGINNING FALL 2008, STUDENTS WILL BE REQUIRED TO TAKE BIOL 231
MICROBIOLOGY LAB FOR TWO CREDIT HOURS.

Dental Hygiene Program

**Associate of Applied Science Degree**
Before beginning clinical courses

CHEM 122  Principles of Chemistry..............................5
ENGL 121  Composition I*.................................3
BIOL 140  Human Anatomy..........................................4
PSYC 130  Introduction to Psychology...........................3
BIOL 230  Microbiology*.....................................3
TOTAL CREDIT HOURS..............................................18
Note: CHEM 122 or BIOL 230 and one of the other
prerequisites must be completed by Dec 1.

First Semester

DHYG 121  Clinical Dental Hygiene I: Pre-Clinic*..............5
DHYG 125  Developmental Dentistry*............................2
DHYG 135  Dental Materials*..................................2
DHYG 138  Head and Neck Anatomy*............................2
SOC 122  Introduction to Sociology............................3
TOTAL CREDIT HOURS..............................................14

Second Semester

DHYG 140  Clinical Dental Hygiene II*........................4
DHYG 142  Dental Radiology*................................2
DHYG 146  Periodontics*......................................3
DHYG 148  Dental Health Education*..........................2
BIOL 225  Human Physiology*.................................4
TOTAL CREDIT HOURS..............................................15

Summer

BIOL 235  General Nutrition*.................................3
Note: BIOL 225 is a prerequisite or corequisite to BIOL 235

Humanities Elective............................................3
Mathematics Elective*.......................................3
TOTAL CREDIT HOURS.............................................9

Third Semester

DHYG 221  Clinical Dental Hygiene III*......................6
DHYG 225  Pathology*........................................3
DHYG 230  Dental Therapeutics*.............................3
DHYG 240  Community Dental Health*.........................2
TOTAL CREDIT HOURS..............................................14

Fourth Semester

DHYG 245  Nitrous Oxide Analgesia*............................1
DHYG 250  Clinical Dental Hygiene IV*......................6
SPD 120  Interpersonal Communication........................3
or
SPD 121  Public Speaking......................................3
or
SPD 125  Personal Communication.............................3
Health and/or Physical Education Elective..................1
TOTAL CREDIT HOURS.............................................11
TOTAL PROGRAM CREDIT HOURS.................................81

*Prerequisite/Corequisite required

Computer-aided Drafting and Design Technology, A.A.S.

Drafting technicians are engineering communication specialists who apply mathematics, computer applications and manual skills to develop specifications.
and drawings for the manufacturing and construction of virtually everything made in the world. JCCC’s drafting technology program offers students up-to-date equipment in facilities located in the Industrial Training Center on the JCCC campus. In addition, the program offers departmental specialty courses. The program provides students with the skills necessary to produce detailed shop drawings, land plats, erection drawings and designs for manufacturing, building, production, commercial building and site construction as well as detailed drawings and designs of components, assemblies and systems used in manufactured products.

Industrial growth and increasingly complex design problems will greatly increase the demand for design and drafting services, particularly using CAD equipment. Employers are most interested in applicants with drafting and mechanical skills, a background in CAD techniques and courses in math, science and engineering technology.

The two-year curriculum enables students to use the latest computer-aided design equipment. Course projects and laboratory procedures are similar to those used in industry.

An associate of applied science degree is awarded upon the successful completion of 69 credit hours.

(2220 15.1301)

Computer Aided Drafting and Design

## Associate of Applied Science Degree

### Prerequisites for Required Courses

Note: Prior to beginning the program, the student must take the following prerequisite courses, or have taken an equivalent transfer course, or have passed the waiver test (if applicable), or have obtained a waiver from the program administrator.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRAF 120</td>
<td>Introduction to Drafting</td>
<td>2</td>
</tr>
<tr>
<td>BOT 101</td>
<td>Computerized Keyboarding</td>
<td>1</td>
</tr>
<tr>
<td>DRAF 130</td>
<td>Introduction to CAD Concepts: AutoCAD 2007*</td>
<td>3</td>
</tr>
<tr>
<td>CPCA 105</td>
<td>Introduction to Personal Computers: Windows</td>
<td>1</td>
</tr>
<tr>
<td>CPCA 138</td>
<td>Windows for Microcomputers*</td>
<td>1</td>
</tr>
<tr>
<td>CPCA 141</td>
<td>Internet I*</td>
<td>1</td>
</tr>
</tbody>
</table>

### First Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRAF 129</td>
<td>Interpreting Architectural Drawings</td>
<td>2</td>
</tr>
<tr>
<td>DRAF 123</td>
<td>Interpreting Machine Drawings*</td>
<td>2</td>
</tr>
<tr>
<td>DRAF 135</td>
<td>Graphic Analysis*</td>
<td>3</td>
</tr>
<tr>
<td>DRAF 230</td>
<td>Intermediate CAD: AutoCAD*</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 121</td>
<td>Composition I*</td>
<td>3</td>
</tr>
<tr>
<td>MATH 133</td>
<td>Technical Mathematics I*</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>TOTAL CREDIT HOURS</td>
<td>17</td>
</tr>
</tbody>
</table>

### Second Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRAF 238</td>
<td>Architectural Drafting*</td>
<td>3</td>
</tr>
<tr>
<td>DRAF 231</td>
<td>CAD 3-D*</td>
<td>3</td>
</tr>
<tr>
<td>DRAF 252</td>
<td>Structural Drafting*</td>
<td>3</td>
</tr>
<tr>
<td>MATH 134</td>
<td>Technical Mathematics II*</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>TOTAL CREDIT HOURS</td>
<td>17</td>
</tr>
</tbody>
</table>

### Third Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CET 211</td>
<td>Technical Statics and Design*</td>
<td>3</td>
</tr>
<tr>
<td>DRAF 222</td>
<td>Mechanical Drafting*</td>
<td>3</td>
</tr>
<tr>
<td>DRAF 250</td>
<td>Electrical Drafting*</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 123</td>
<td>Technical Writing I*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Health and/or Physical Education Elective</td>
<td>1</td>
</tr>
</tbody>
</table>
### Fourth Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRAF 228</td>
<td>Industrial Design Applications*</td>
<td>3</td>
</tr>
<tr>
<td>DRAF 243</td>
<td>Architectural Desktop*</td>
<td>2</td>
</tr>
<tr>
<td>or</td>
<td>Land Development Desktop*</td>
<td>2</td>
</tr>
<tr>
<td>or</td>
<td>Mechanical Desktop*</td>
<td>2</td>
</tr>
<tr>
<td>DRAF 225</td>
<td>Civil Drafting*</td>
<td>2</td>
</tr>
</tbody>
</table>

- Social Science and/or Economics Elective..................3
- Humanities Elective..................................3
- Technical Electives..................................3

**TOTAL CREDIT HOURS..................................17**

**TOTAL PROGRAM CREDIT HOURS..........................69**

### Technical Electives

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPCA 108</td>
<td>Word Processing I: MS Word*</td>
<td>1</td>
</tr>
<tr>
<td>CPCA 110</td>
<td>Spreadsheets I: MS Excel*</td>
<td>1</td>
</tr>
<tr>
<td>CPCA 111</td>
<td>Spreadsheets II: MS Excel*</td>
<td>1</td>
</tr>
<tr>
<td>CPCA 114</td>
<td>Databases I: MS Access*</td>
<td>1</td>
</tr>
<tr>
<td>CPCA 115</td>
<td>Databases II: MS Access*</td>
<td>2</td>
</tr>
<tr>
<td>CPCA 117</td>
<td>Databases III: MS Access*</td>
<td>1</td>
</tr>
<tr>
<td>CPCA 121</td>
<td>Introduction to Project Management*</td>
<td>1</td>
</tr>
<tr>
<td>CPCA 123</td>
<td>E-Presentation: MS PowerPoint*</td>
<td>1</td>
</tr>
<tr>
<td>CPCA 125</td>
<td>Word Processing II: MS Word*</td>
<td>1</td>
</tr>
<tr>
<td>CPCA 151</td>
<td>Internet II*</td>
<td>1</td>
</tr>
<tr>
<td>CPCA 158</td>
<td>Internet Application and Utilities*</td>
<td>3</td>
</tr>
<tr>
<td>CPCA 161</td>
<td>Introduction to Web Pages using HTML*</td>
<td>1</td>
</tr>
<tr>
<td>DRAF 140</td>
<td>Topics in CAD I*</td>
<td>2</td>
</tr>
<tr>
<td>DRAF 232</td>
<td>CAD Applications Workstation Environment*</td>
<td>2</td>
</tr>
<tr>
<td>DRAF 233</td>
<td>CAD Administration</td>
<td>2</td>
</tr>
<tr>
<td>DRAF 240</td>
<td>Introduction to AutoLISP*</td>
<td>2</td>
</tr>
<tr>
<td>DRAF 242</td>
<td>Topics in CAD II*</td>
<td>2</td>
</tr>
<tr>
<td>DRAF 243</td>
<td>Architectural Desktop*</td>
<td>2</td>
</tr>
<tr>
<td>DRAF 244</td>
<td>Land Development Desktop*</td>
<td>2</td>
</tr>
<tr>
<td>DRAF 245</td>
<td>Mechanical Desktop*</td>
<td>2</td>
</tr>
<tr>
<td>DRAF 271</td>
<td>Drafting Internship I*</td>
<td>3</td>
</tr>
<tr>
<td>DRAF 272</td>
<td>Drafting Internship II*</td>
<td>3</td>
</tr>
<tr>
<td>CET 105</td>
<td>Construction Methods</td>
<td>3</td>
</tr>
<tr>
<td>CET 125</td>
<td>Construction Specifications*</td>
<td>2</td>
</tr>
<tr>
<td>CET 127</td>
<td>Construction Estimating*</td>
<td>3</td>
</tr>
<tr>
<td>CET 270</td>
<td>Fluid Mechanics*</td>
<td>3</td>
</tr>
<tr>
<td>MFAB 152</td>
<td>Manufacturing Materials and Processes</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 180</td>
<td>Engineering Land Surveying I*</td>
<td>3</td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required

### Computer-aided Drafting Certificate

This certificate makes it possible for those students who already have a drafting or engineering degree, or those who have sufficient work experience, to obtain certification in CAD.

(4800 15.1301)

Computer Aided Drafting and Design

### Vocational Certificate

#### Sequence of Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPCA 105</td>
<td>Introduction to Personal Computers: Windows........</td>
<td>1</td>
</tr>
<tr>
<td>CPCA 138</td>
<td>Windows for Microcomputers*</td>
<td>1</td>
</tr>
<tr>
<td>CPCA</td>
<td>Elective</td>
<td>1</td>
</tr>
</tbody>
</table>
Early Childhood Education, A.S.

The Early Childhood Education associate's degree program is for those students who currently are employed or aspire to work in early childhood care and education programs. Completion of JCCC's associate of science degree program provides students the credentials to advance in quality early childhood care and education settings. The program has four areas of specialization: administration, care and education of young children with special needs, infant/toddler care and education and school age programs. Credits will transfer to many Kansas universities. Excellent practical education opportunities are available to students in the program.

Prerequisite
Students must meet the requirements for employment in early childhood care and education centers in Kansas (stated in the Kansas Licensing Regulations for Preschools and Child Care Centers).

(2100 19.0708)

Early Childhood Education Program

Associate of Science Degree

First Semester

EDUC 130  Foundations of Early Childhood Education..................3
ENGL 121  Composition I*........................................3
Math Elective*^..................................................3
PSYC 130  Introduction to Psychology...........................3
SPD  121  Public Speaking.......................................3
TOTAL CREDIT HOURS........................................15

Second Semester

EDUC 131  Early Childhood Curriculum I*.............................3
EDUC 250  Child Health, Safety and Nutrition.........................3
Health/Physical Education**..................................1-2
Science course with Lab***....................................4-5
PSYC 215  Child Development*....................................3
or
PSYC 218  Human Development*...................................3
TOTAL CREDIT HOURS..........................................14-16

Summer

ENGL 122  Composition II*..........................................3
Humanities Elective.............................................3
TOTAL CREDIT HOURS..........................................6

Third Semester

EDUC 231  Early Childhood Curriculum II*............................3
EDUC 210  Creative Experiences for Young Children*...............3
EDUC 260  Observing and Interacting with Young Children*........3
ANTH 130  World Cultures.........................................3
or
ANTH 125  Cultural Anthropology..................................3
or
SOC  131  Marriage and the Family................................3
Science or Math..................................................4-5
TOTAL CREDIT HOURS..........................................16-17
Fourth Semester

EDUC 235 Parenting*...........................................2
EDUC 284 Seminar: Early Childhood Education*...........3
EDUC 285 Student Teaching: Early Childhood Education*..3
Humanities Elective........................................3
Specialization courses......................................6
TOTAL CREDIT HOURS.......................................17
TOTAL PROGRAM CREDIT HOURS.............................69-70

Area of Specialization - select one:

** Child Care Administration

ACCT 121 Accounting I.....................................3
EDUC 280 Administration of Early Childhood Program.....3

** Children with Special Needs

EDUC 220 Survey of the Exceptional Child................3
EDUC 215 Young Children with Special Needs...............3

** Infant and Toddler Care and Education

EDUC 270 Early Childhood Development........................3
EDUC 225 Infant and Toddler Education and Care*..........3

** School-Age Programs

EDUC 240 School-Age Programs and Curriculum I*..........3
EDUC 245 School-Age Programs and Curriculum II*.........3
*Prerequisite/Corequisite required

^Recommended math course information

NOTE: The mathematics requirement will be satisfied by any mathematics course except MATH 111, Fundamentals of Mathematics, and MATH 115, Introduction to Algebra.

Specific recommended course
MATH 171 College Algebra*..................................3

**Recommended HPER course, if not certified in CPR

HPER 200 First Aid and CPR..................................2

***Recommended courses for the science requirement

** Life Science

BIOL 122 Principles of Biology................................3
BIOL 123 Principles of Biology Lab*..........................1
BIOL 130 Environmental Science............................3
BIOL 131 Environmental Science Lab*.......................1

** Physical Science

ASTR 122 Astronomy...........................................4
GEOS 130 General Geology.................................5
GEOS 140 Physical Geography................................3
GEOS 141 Physical Geography Lab*..........................2
PSCI 120 Physical Science...................................4
Early Childhood Education Certificate

This certificate is for students seeking employment in early childhood care and education programs and for current early childhood care and education teachers/administrators who want to upgrade their skills and increase their knowledge in this area of study. The program does not need to be completed in one year.

Students must be first aid/CPR certified to receive the early childhood education certificate. The first aid/CPR certification may be obtained through agencies such as The Midwest Whole Child Development Group or your local hospital; you may also enroll in HPER 200 First Aid/CPR at JCCC. Students must meet the requirements for employment in early childhood care and education centers in Kansas (stated in the Kansas Licensing Regulations for Preschool and Child Care Centers).

(6600 19.0708)

Early Childhood Education Program

Postsecondary Certificate

First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC 130</td>
<td>Foundations of Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 131</td>
<td>Early Childhood Curriculum I*</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 270</td>
<td>Early Childhood Development</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 121</td>
<td>Composition I*</td>
<td>3</td>
</tr>
<tr>
<td>SPD 120</td>
<td>Interpersonal Communication**</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>SPD 121 Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL CREDIT HOURS</td>
<td>15</td>
<td></td>
</tr>
</tbody>
</table>

Summer Session

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC 210</td>
<td>Creative Experiences for Young Children*</td>
<td>3</td>
</tr>
</tbody>
</table>

Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC 231</td>
<td>Early Childhood Curriculum II*</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 250</td>
<td>Child Health, Safety and Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>MATH 120</td>
<td>Business Mathematics*</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 235</td>
<td>Parenting*</td>
<td>2</td>
</tr>
<tr>
<td>TOTAL CREDIT HOURS</td>
<td>14</td>
<td></td>
</tr>
</tbody>
</table>

Plus one of the following EDUC courses below:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC 205</td>
<td>Concepts in Early Childhood Education*^</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 240</td>
<td>School-Age Programs and Curriculum I*</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 280</td>
<td>Administration of Early Childhood Program</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 215</td>
<td>Young Children with Special Needs</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 225</td>
<td>Infant and Toddler Education and Care*</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL CREDIT HOURS</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>TOTAL PROGRAM CREDIT HOURS</td>
<td>32</td>
<td></td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required

NOTE: **Course is not considered credit in the associate of science early childhood education degree program.

NOTE: ^Course is not considered credit in associate of science early childhood education degree program. Credit for experience is available.

Commercial Wiring Certificate

The Electrical Technology Commercial Wiring Vocational Certificate is a 16 credit-hour program that students can complete in one semester. This certificate is designed to give the students the basic skills to gain employment as a commercial electrician.
Electrical Technology Program

Vocational Certificate

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELTE 122</td>
<td>National Electrical Code I</td>
<td>4</td>
</tr>
<tr>
<td>ELTE 123</td>
<td>Electromechanical Systems</td>
<td>4</td>
</tr>
<tr>
<td>ELTE 200</td>
<td>Commercial Wiring Methods*</td>
<td>4</td>
</tr>
<tr>
<td>INDT 125</td>
<td>Industrial Safety</td>
<td>3</td>
</tr>
<tr>
<td>INDT 155</td>
<td>Workplace Skills</td>
<td>1</td>
</tr>
</tbody>
</table>

TOTAL PROGRAM CREDIT HOURS: 16

*Prerequisite/Corequisite required

Electrical Technology, A.A.S.

The use of electrical technology in residential, commercial and industrial applications continues to grow rapidly. Electricians install and maintain electrical systems for a variety of purposes, including lighting, appliances, climate control, security and communications.

JCCC offers a 65-credit-hour associate of applied science degree program and a 29-credit-hour vocational certificate program. Both programs emphasize hands-on training integrated with a knowledge of theory and study of the National Electrical Code that prepares students to take a national licensure exam.

The associate of applied science degree program prepares students to enter the electrical trade in four types of electrical occupations: residential, commercial, industrial and maintenance. The program also prepares students for continued education in electrical contracting/management, electrical design and industrial/electronic controls.

(2260 46.0301)

Electrical Technology Program

Associate of Applied Science Degree

First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELTE 122</td>
<td>National Electrical Code I</td>
<td>4</td>
</tr>
<tr>
<td>ELTE 125</td>
<td>Residential Wiring Methods*</td>
<td>4</td>
</tr>
<tr>
<td>ELTE 123</td>
<td>Electromechanical Systems</td>
<td>4</td>
</tr>
<tr>
<td>INDT 125</td>
<td>Industrial Safety</td>
<td>3</td>
</tr>
<tr>
<td>INDT 155</td>
<td>Workplace Skills</td>
<td>1</td>
</tr>
</tbody>
</table>

TOTAL CREDIT HOURS: 16

Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELTE 200</td>
<td>Commercial Wiring Methods*</td>
<td>4</td>
</tr>
<tr>
<td>ENGL 121</td>
<td>Composition I*</td>
<td>3</td>
</tr>
<tr>
<td>MATH 133</td>
<td>Technical Mathematics I*</td>
<td>4</td>
</tr>
<tr>
<td>CPCA 105</td>
<td>Introduction to Personal Computers: Windows</td>
<td>1</td>
</tr>
<tr>
<td>Related Electives</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

TOTAL CREDIT HOURS: 16

Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRAF 129</td>
<td>Interpreting Architectural Drawings</td>
<td>2</td>
</tr>
<tr>
<td>ELTE 205</td>
<td>Industrial Electrical Wiring*</td>
<td>4</td>
</tr>
<tr>
<td>ELTE 210</td>
<td>Code Certification Review*</td>
<td>3</td>
</tr>
<tr>
<td>ELTE 271</td>
<td>Electrical Internship I*</td>
<td>3</td>
</tr>
<tr>
<td>HPER 200</td>
<td>First Aid and CPR</td>
<td>2</td>
</tr>
<tr>
<td>Social Science and/or Economics Elective</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

TOTAL CREDIT HOURS: 17
### Fourth Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 123</td>
<td>Technical Writing I*</td>
<td>3</td>
</tr>
<tr>
<td>ELTE 215</td>
<td>Generators, Transformers and Motors*</td>
<td>4</td>
</tr>
<tr>
<td>CET 105</td>
<td>Construction Methods</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Humanities Electives</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Related Electives</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>TOTAL CREDIT HOURS</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>TOTAL PROGRAM CREDIT HOURS</td>
<td>65</td>
</tr>
</tbody>
</table>

### Related Electives

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELTE 291</td>
<td>Independent Study</td>
<td>1-7</td>
</tr>
<tr>
<td>CPC 128</td>
<td>PC Applications: Office 2003</td>
<td>3</td>
</tr>
<tr>
<td>DRAF 120</td>
<td>Introduction to Drafting</td>
<td>2</td>
</tr>
<tr>
<td>DRAF 130</td>
<td>Introduction to CAD Concepts: AutoCAD 2007*</td>
<td>3</td>
</tr>
<tr>
<td>DRAF 250</td>
<td>Electrical Drafting*</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 120</td>
<td>Introduction to Electronics</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 125</td>
<td>Digital Electronics I</td>
<td>4</td>
</tr>
<tr>
<td>ELEC 131</td>
<td>Introduction to Sensors and Actuators</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 133</td>
<td>Programmable Controllers</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 165</td>
<td>Advanced Programmable Controllers*</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 185</td>
<td>LAN Cabling and Installation</td>
<td>3</td>
</tr>
<tr>
<td>HVAC 121</td>
<td>Basic Principles of HVAC*</td>
<td>4</td>
</tr>
<tr>
<td>MFAB 121</td>
<td>Introduction to Welding</td>
<td>4</td>
</tr>
<tr>
<td>BUS 140</td>
<td>Principles of Supervision</td>
<td>3</td>
</tr>
<tr>
<td>BUS 145</td>
<td>Small Business Management</td>
<td>3</td>
</tr>
<tr>
<td>ENTR 142</td>
<td>Fast Trac Business Plan</td>
<td>3</td>
</tr>
<tr>
<td>RRT 165</td>
<td>Railroad Safety, Quality and Environment</td>
<td>3</td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required

### Electrical Technology Certificate

The electrical technology vocational certificate program is a one-year program that students can complete in two semesters. Designed to give students the basic skills to gain employment as a construction or maintenance electrician, the curriculum includes an internship with local employers.

(5200 46.0301)

#### Electrical Technology Program

### Vocational Certificate

#### First Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELTE 122</td>
<td>National Electrical Code I</td>
<td>4</td>
</tr>
<tr>
<td>ELTE 125</td>
<td>Residential Wiring Methods*</td>
<td>4</td>
</tr>
<tr>
<td>ELTE 123</td>
<td>Electromechanical Systems</td>
<td>4</td>
</tr>
<tr>
<td>INDT 125</td>
<td>Industrial Safety</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>TOTAL CREDIT HOURS</td>
<td>15</td>
</tr>
</tbody>
</table>

#### Second Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELTE 200</td>
<td>Commercial Wiring Methods*</td>
<td>4</td>
</tr>
<tr>
<td>ELTE 210</td>
<td>Code Certification Review*</td>
<td>3</td>
</tr>
<tr>
<td>ELTE 271</td>
<td>Electrical Internship I*</td>
<td>3</td>
</tr>
<tr>
<td>INDT 155</td>
<td>Technical Electives</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>TOTAL CREDIT HOURS</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>TOTAL PROGRAM CREDIT HOURS</td>
<td>29</td>
</tr>
</tbody>
</table>

### Technical Electives

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELTE 205</td>
<td>Industrial Electrical Wiring*</td>
<td>4</td>
</tr>
<tr>
<td>ELTE 291</td>
<td>Independent Study</td>
<td>1-7</td>
</tr>
<tr>
<td>ELTE 215</td>
<td>Generators, Transformers and Motors*</td>
<td>4</td>
</tr>
</tbody>
</table>
Industrial Maintenance, A.A.S.

Industrial maintenance requires people employed in the field to be trained in a variety of areas, including welding, electricity, HVAC, gasoline or diesel engines, and generators. Often, the needs will change due to growth in a company or the expansion of services provided. This degree option will allow a student to choose from numerous courses to custom build a program that will fit the needs of an employer. It will also allow students employed in an industrial maintenance position to broaden their skill areas and achieve an associate of applied science degree.

(2270 46.0301)

Electrical Technology Program

Associate of Applied Science Degree

First Semester

DRAF 129 Interpreting Architectural Drawings...................2
or MFAB 180 Blueprint and Symbols Reading for Welders..........2
or HVAC 143 Reading Blueprints and Ladder Diagrams.............2
ENGL 121 Composition I*....................................3
INDT 125 Industrial Safety....................................3
HVAC 123 Electromechanical Systems.............................4
MATH 133 Technical Mathematics I*............................4
TOTAL CREDIT HOURS.........................................16

Second Semester

CPCA 128 PC Applications: Office 2003.........................3
ELTE 122 National Electrical Code I............................4
ENGL 123 Technical Writing I*.................................3
INDT 155 Workplace Skills....................................1
Technical Electives...........................................5
TOTAL CREDIT HOURS.........................................16

Third Semester

ECON 132 Survey of Economics....................................3
MFAB 121 Introduction to Welding.................................4
or MFAB 127 Welding Processes..................................2
SPF 120 Interpersonal Communication............................3
Related Electives...............................................3
Technical Electives...........................................3-5
TOTAL CREDIT HOURS.........................................16

Fourth Semester

EMS 121 CPR I - Basic Life Support for Healthcare Provider...1
Technical Electives

AUTO 165 Automotive Engine Repair*............................4
AUTO 210 Advanced Engine Repair*..............................3
ELEC 120 Introduction to Electronics................................3
ELEC 133 Programmable Controllers.............................3
ELEC 165 Advanced Programmable Controllers*...................3
ELTE 200 Commercial Wiring Methods*............................4
ELTE 205 Industrial Electrical Wiring*...........................4
ELTE 271 Electrical Internship I*.................................3
HVAC 150 Refrigerant Management and Certification.............1
HVAC 121 Basic Principles of HVAC*............................4
HVAC 146 Plumbing Systems Applications........................3
HVAC 221 Commercial Systems: Air Conditioning*................4
HVAC 223 Commercial Systems: Heating*..........................4
HVAC 271 HVAC Internship*......................................3
MFAB 125 Advanced Gas and Arc Welding*........................4
MFAB 240 Metallurgy.............................................2
MFAB 140 Maintenance Repair Welding*..........................3
MFAB 271 Metal Fabrication Internship*..........................3

Related Electives

BUS 140 Principles of Supervision................................3
BUS 141 Principles of Management..................................3
CET 129 Construction Management................................3
CET 140 Civil Engineering Materials*............................3
Note: Must take concurrent with Math 133

CPCA 105 Introduction to Personal Computers: Windows..........1
CPCA 121 Introduction to Project Management*..................1
CPCA 141 Internet I*............................................1
IT 200 Networking Technologies..................................3
*Prerequisite/Corequisite required

Industrial Maintenance Certificate

Industrial maintenance mechanics are employed in the die-casting, plastics, food processing, printing, precision metal and woodworking industries. The vocational certificate course work includes a broad curriculum of industrial electricity, welding, HVAC and blueprint reading. Emphasis will be hands-on training in the repairing and testing of equipment. This also allows students employed in an industrial maintenance position to broaden their skill areas and achieve a vocational certificate.

(5210 46.0301)

Electrical Technology Program

Vocational Certificate

Required Courses

DRAF 129 Interpreting Architectural Drawings....................2
or
MFAB 180 Blueprint and Symbols Reading for Welders............2
or
HVAC 143 Reading Blueprints and Ladder Diagrams.............2
ELTE 123 Electromechanical Systems.............................4
Industrial Electrical Wiring Certificate

The electrical technology industrial electrical wiring vocational certificate is a program that students can complete in two semesters. This certificate is designed to give the students the basic skills to gain employment as an industrial electrician.

(4020 46.0301)

Electrical Technology Program

Vocational Certificate

First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELTE 123</td>
<td>Electromechanical Systems</td>
<td>4</td>
</tr>
<tr>
<td>ELTE 122</td>
<td>National Electrical Code I</td>
<td>4</td>
</tr>
<tr>
<td>or</td>
<td>ELTE 200 Commercial Wiring Methods*</td>
<td>4</td>
</tr>
<tr>
<td>INDT 125</td>
<td>Industrial Safety</td>
<td>3</td>
</tr>
<tr>
<td>INDT 155</td>
<td>Workplace Skills</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>Total Credit Hours</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEC 133</td>
<td>Programmable Controllers</td>
<td>3</td>
</tr>
<tr>
<td>ELTE 205</td>
<td>Industrial Electrical Wiring*</td>
<td>4</td>
</tr>
<tr>
<td>ELTE 210</td>
<td>Code Certification Review*</td>
<td>3</td>
</tr>
<tr>
<td>ELTE 215</td>
<td>Generators, Transformers and Motors*</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>Total Credit Hours</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required

Residential Wiring Certificate

The Electrical Technology Residential Wiring Vocational Certificate is a 16-credit hour program that students can complete in one semester. This certificate is designed to give the students the basic skills to gain employment as a residential electrician (wireman).

(4030 46.0301)
Electrical Technology Program

Vocational Certificate

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELTE 122</td>
<td>National Electrical Code I</td>
<td>4</td>
</tr>
<tr>
<td>ELTE 123</td>
<td>Electromechanical Systems</td>
<td>4</td>
</tr>
<tr>
<td>ELTE 125</td>
<td>Residential Wiring Methods*</td>
<td>4</td>
</tr>
<tr>
<td>INDT 125</td>
<td>Industrial Safety</td>
<td>3</td>
</tr>
<tr>
<td>INDT 155</td>
<td>Workplace Skills</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>TOTAL PROGRAM CREDIT HOURS</td>
<td>16</td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite

Electronics Technology, A.A.S.

Electronics technology influences almost every aspect of modern life. Skilled electronics technicians are needed to support growth in this industry. These technicians must be able to fabricate, test, install, operate and maintain highly technical systems such as communications systems, computers and computer networks, and industrial process control systems. The program focuses on the underlying principles of electronic devices, circuit analysis and digital electronics and will provide a broad systems view of electronics.

Students in the electronics program will work with outstanding facilities and the latest laboratory equipment. Graduates of the program will have the opportunity for employment in one of today’s most challenging and exciting career fields.

Program graduates also have the opportunity to pursue a baccalaureate degree (B.S.E.E.T.) in electronics engineering technology through the transfer of JCCC electronics technology and other courses to participating four-year institutions. Students contemplating this option should seek early counseling and prepare a program plan with specific course selections in anticipation of four-year institution requirements. Students should be prepared to enroll in higher-level math and physics courses when compared with current electronics technology program requirements.

Students who are transferring to JCCC with significant numbers of electronic technology credits should be aware that at least 9 credit hours of approved electronic technology courses must be completed at JCCC before the A.A.S. degree will be awarded. In addition, because of changes in technology, students who desire to graduate using electronics technology courses completed more than seven years ago should seek counseling regarding the current relevance of those courses.

(2690 47.0101)

Electronics Technology

Associate of Applied Science Degree

First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEC 120</td>
<td>Introduction to Electronics</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 126</td>
<td>Microcomputer A+ Preparation</td>
<td>4</td>
</tr>
<tr>
<td>ELEC 125</td>
<td>Digital Electronics I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 133</td>
<td>Technical Mathematics I or higher*</td>
<td>4</td>
</tr>
<tr>
<td>ENGL 121</td>
<td>Composition I*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>TOTAL CREDIT HOURS</td>
<td>18</td>
</tr>
</tbody>
</table>

Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEC 122</td>
<td>Circuit Analysis I*</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 225</td>
<td>Digital Electronics II*</td>
<td>3</td>
</tr>
<tr>
<td>MATH 134</td>
<td>Technical Mathematics II or higher*</td>
<td>5</td>
</tr>
<tr>
<td>SPD 125</td>
<td>Personal Communication</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Humanities Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>TOTAL CREDIT HOURS</td>
<td>17</td>
</tr>
</tbody>
</table>
Third Semester

- ELEC 130 Electronic Devices I* ................................4
- ELEC 140 Circuit Analysis II* ...............................3
- ENGL 123 Technical Writing I* .................................3
- Technical Elective...................................3
- Social Science/Economics Elective..............................3
- TOTAL CREDIT HOURS..................................16

Fourth Semester

- ELEC 230 Electronic Devices II*...............................3
- ELEC 240 Electronic Communication Systems*....................4
- Technical Elective...................................3
- PHYS 133 Applied Physics or higher*...........................5
- Health and/or Physical Education Elective...............1
- TOTAL CREDIT HOURS..................................16
- TOTAL PROGRAM CREDIT HOURS..........................67

Technical Electives

- ELEC 131 Introduction to Sensors and Actuators...............3
- ELEC 133 Programmable Controllers..........................3
- ELEC 165 Advanced Programmable Controllers*................3
- ELEC 175 Telecommunications* ................................3
- ELEC 185 LAN Cabling and Installation.......................3
- ELEC 245 Microprocessors*..................................3
- ELEC 250 Microcomputer Maintenance*........................3
- ELEC 271 Electronics Internship I*............................1
- ELEC 272 Electronics Internship II*............................1
- *Prerequisite/Corequisite required

Industrial Controls Certificate

This certificate is designed to focus on programmable logic controllers and a variety of input and output devices. The certificate is a 9-credit-hour, 3-course sequence involving both the hardware and programming aspects of controllers used in industrial processes. Lectures provide a theoretical basis and laboratory projects offer experience in controller program planning, documentation and troubleshooting.

(4720 47.0101)

Electronics Technology

Vocational Certificate

Required Courses

- ELEC 131 Introduction to Sensors and Actuators...............3
- ELEC 133 Programmable Controllers..........................3
- ELEC 165 Advanced Programmable Controllers*................3
- TOTAL PROGRAM CREDIT HOURS.............................9
- *Prerequisite/Corequisite required

Microcomputer Technical Support Certificate

The microcomputer technical support vocational certificate is designed to provide an entry-level set of competencies that will allow the recipient to quickly perform satisfactorily in computer system help desk environment. This 6-course sequence will expose the student to significant aspects of computer hardware, computer networks and interconnection computer software, as well as interpersonal skills. Lectures will provide a theoretical foundation of microcomputer performance while a variety of laboratory projects will offer experience in system organization, interconnection and troubleshooting.
Electronics Technology

Vocational Certificate

Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEC 126</td>
<td>Microcomputer A+ Preparation</td>
<td>4</td>
</tr>
<tr>
<td>CFCA 128</td>
<td>PC Applications: Office 2003</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 185</td>
<td>LAN Cabling and Installation</td>
<td>3</td>
</tr>
<tr>
<td>IT 205</td>
<td>Implementing Windows Client*</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 250</td>
<td>Microcomputer Maintenance*</td>
<td>3</td>
</tr>
<tr>
<td>BUS 225</td>
<td>Human Relations</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>SPD 125 Personal Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL PROGRAM CREDIT HOURS: 19

*Prerequisite/Corequisite required

Smart House Technology Integrator Certificate

This certificate documents training that the recipient has received to qualify for the area of installing and integrating a wide range of home networking, automation and remote control systems into homes.

Electronics Technology

Vocational Certificate

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEC 123</td>
<td>Smart House Technology</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 126</td>
<td>Microcomputer A+ Preparation</td>
<td>4</td>
</tr>
<tr>
<td>ELTE 122</td>
<td>National Electrical Code I</td>
<td>4</td>
</tr>
<tr>
<td>ELTE 123</td>
<td>Electromechanical Systems</td>
<td>4</td>
</tr>
<tr>
<td>or</td>
<td>HVAC 123 Electromechanical Systems</td>
<td>4</td>
</tr>
<tr>
<td>ELTE 125</td>
<td>Residential Wiring Methods*</td>
<td>4</td>
</tr>
<tr>
<td>IT 200</td>
<td>Networking Technologies</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 185</td>
<td>LAN Cabling and Installation</td>
<td>3</td>
</tr>
<tr>
<td>INDT 155</td>
<td>Workplace Skills</td>
<td>1</td>
</tr>
</tbody>
</table>

TOTAL PROGRAM CREDIT HOURS: 26

*Prerequisite/Corequisite required

Emergency Medical Science, A.A.S.

People who work in the field of emergency medical science (EMS) often enter people’s lives during critical times of illness and injury. Their ability to act knowledgeably, compassionately, quickly and calmly can stabilize chaotic, frightening situations.

JCCC offers three progressively intensive options for learning the skills of emergency medical science. All three options prepare you for state certification examinations.

JCCC’s financial aid program includes scholarships, grants and loans if you are eligible. Financial aid is particularly important in the MICT program, since long hours usually prohibit you from holding a full-time job.

EMS First Responder Course

EMS first responder students receive classroom and skills training in cardiopulmonary resuscitation (CPR), patient assessment, and fracture and airway management. This class is recommended for:
- people without a medical background who wish to enter the EMT program
- anyone who wishes to learn basics of emergency medical care
- firefighters, police officers, lifeguards and others from agencies involved in public
safety - employees involved in company safety programs

Students successfully completing this course will be allowed to sit for the certification examination administered by the Kansas Board of Emergency Medical Services.

The EMS First Responder class is offered as the need arises – in general, once each semester.

EMS 128   EMS First Responder...................5
TOTAL CREDIT HOURS....................5

**Emergency Medical Technician Course**

This program is designed for individuals interested in providing medical care to patients in the pre-hospital setting. It will provide the participants with opportunities to gain information, skills and attitudes necessary for certification and practice as an emergency medical technician (EMT) in the state of Kansas.

The program has been approved by the Kansas Board of Emergency Medical Services. It addresses information and techniques currently considered to be the responsibility of the EMT, according to the United States Department of Transportation, National Standard Curriculum. The program consists of lecture instruction, practical skill training and clinical experience.

Classroom instruction includes anatomy, physiology, recognition and care of actual medical emergencies and trauma-related injuries. Skills in performing CPR, bandaging, splinting, childbirth techniques and other emergency care procedures are taught. An extrication session will give students hands-on experience with auto accident situations and provide the opportunity to observe an air evacuation of a patient. Upon instructor recommendation, students will participate in a clinical observation in a hospital setting. Additionally, students will arrange to participate as an observer with a local EMS service. Students participate in seven hours of lecture and two hours of lab a week. Students are also required to attend approximately two Saturday classes lasting between four and eight hours each. Saturday dates and times will be announced during the first class session.

Students successfully completing this course will be allowed to sit for the certification examinations administered by the Kansas Board of Emergency Medical Services.

EMS 130   Emergency Medical Technician Course*............9
*Prerequisite - EMS 128 or equivalent, or be an active member in a health-related occupation (firefighter, rescue, ambulance, law enforcement, industrial first-aid personnel or other health-related field), or attained the minimum of an associate's degree.

TOTAL PROGRAM CREDIT HOURS.....................9

**EMT Practicum**

EMT Practicum is designed to give the EMT-B, recently certified or those with limited field experience, the additional skills and confidence needed to successfully compete for a position as an EMT-B with an EMS service. Skills will include ambulance operation, driving, map reading, insurance billing and unit maintenance. This course will also provide high-fidelity scenario training in all aspects of the EMS call, as well as extensive field lab time with a local EMS service.

Students will become directly involved in their own training by leading and participating in realistic medical emergency scenarios with "actors" playing life-like patients and bystanders. Numerous field internship shifts on a licensed ambulance are part of the training. Students will work through all phases of an ambulance call. They will be presented with complex patient-care situations that require the development of critical thinking and decision-making skills. Students will be tested on their ability to lead a team of pre-hospital caregivers in the diagnosis, proper treatment and evacuation of a patient. Scenario simulations will be set up to be as life-like as possible.

EMS 133   EMT Practicum*....................3
*Prerequisite - EMS 130 EMT-B or equivalent and a copy of current EMT-B card

TOTAL CREDIT HOURS.............3

**Mobile Intensive Care Technician (Paramedic) Program**

This advanced emergency medical care program consists of four courses, including a clinical rotation in a hospital setting and a field internship with an
ambulance service. You learn emergency procedures such as cardiac monitoring and defibrillation and the administration of medications and IV fluids. Successful completion of this program and subsequent certification exams will enable graduates to work as skilled paramedics and to provide sophisticated, advanced pre-hospital life support.

JCCC’s MICT program is fully accredited by the Committee on Accreditation of Educational Programs for the EMS Professions (CoAEMSP). If you are interested, contact the Admissions office for an application packet, which includes deadlines, admission requirements and options for meeting academic criteria.

This is a selective admission program with limited enrollment. If you are accepted into the program, you take classes in the spring, summer and fall, completing the program in December.

Students successfully completing this program will be allowed to sit for the certification examinations administered by the Kansas Board of Emergency Medical Services.

(248A 51.0904)

Emergency Medical Science

Associate of Applied Science Degree

Prior to beginning professional courses

Successful completion of an EMT course and successful completion of the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 144</td>
<td>Human Anatomy and Physiology</td>
<td>5</td>
</tr>
<tr>
<td>or</td>
<td>BIOL 140 Human Anatomy</td>
<td>4</td>
</tr>
<tr>
<td>and</td>
<td>BIOL 225 Human Physiology*</td>
<td>4</td>
</tr>
<tr>
<td>ENGL 121</td>
<td>Composition I*</td>
<td>3</td>
</tr>
<tr>
<td>SOC 125</td>
<td>Social Problems</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>Social Science/Economics Elective</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 143</td>
<td>Ethics</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>Humanities Elective</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>Health/Physical Education Elective</td>
<td>1</td>
</tr>
<tr>
<td>Electives</td>
<td></td>
<td>0-2</td>
</tr>
</tbody>
</table>

TOTAL GENERAL EDUCATION CREDIT HOURS 17-18

First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMS 220</td>
<td>MICT I*</td>
<td>10</td>
</tr>
<tr>
<td>EMS 225</td>
<td>MICT II*</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>TOTAL CREDIT HOURS</td>
<td>20</td>
</tr>
</tbody>
</table>

Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMS 230</td>
<td>MICT III Clinicals*</td>
<td>12</td>
</tr>
</tbody>
</table>

Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMS 271</td>
<td>MICT IV Field Internship*</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>TOTAL PROFESSIONAL CREDIT HOURS</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>TOTAL PROGRAM CREDIT HOURS</td>
<td>64-65</td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required

Mobile Intensive Care Technician Certificate

Prior to beginning profession courses:
An associate's degree or higher, successful completion of an EMT course, and successful completion of a college-level anatomy/physiology course are required.

Mobile Intensive Care Technician (Paramedic) Program
This advanced emergency medical care program consists of four courses, including a clinical rotation in a hospital setting and a field internship with an ambulance service. You learn emergency procedures such as cardiac monitoring and defibrillation and the administration of medications and IV fluids. Successful completion of this program and subsequent certification exams will enable graduates to work as skilled paramedics and to provide sophisticated, advanced pre-hospital life support.

JCCC’s MICT program is fully accredited by the Committee on Accreditation of Educational Programs for the EMS Professions (CoAEMSP). If you are interested, contact the Admissions office for an application packet, which includes deadlines, admission requirements and options for meeting academic criteria.

This is a selective admission program with limited enrollment. If you are accepted into the program, you take classes in the spring, summer and fall, completing the program in December.

Students successfully completing this program will be allowed to sit for the certification examinations administered by the Kansas Board of Emergency Medical Services.

(486A 51.0904)

Emergency Medical Science

Vocational Certificate

First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMS 220</td>
<td>MICT I*</td>
<td>10</td>
</tr>
<tr>
<td>EMS 225</td>
<td>MICT II*</td>
<td>10</td>
</tr>
<tr>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td></td>
<td><strong>20</strong></td>
</tr>
</tbody>
</table>

Second Session

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMS 230</td>
<td>MICT III Clinicals*</td>
<td>12</td>
</tr>
</tbody>
</table>

Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMS 271</td>
<td>MICT IV Field Internship*</td>
<td>15</td>
</tr>
<tr>
<td><strong>TOTAL PROGRAM CREDIT HOURS</strong></td>
<td></td>
<td><strong>47</strong></td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required

Emergency Medical Technician Certificate
(Major Code 4760; 51.0904)

Emergency Medical Science

Vocational Certificate

Required Course

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMS 130</td>
<td>Emergency Medical Technician*</td>
<td>9</td>
</tr>
<tr>
<td><strong>TOTAL PROGRAM CREDIT HOURS</strong></td>
<td></td>
<td><strong>9</strong></td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required

Business Plan Certificate

The business plan certificate program focuses on evaluating an idea for a business and concludes with writing a business plan to start and/or grow a business.
Entrepreneurship

Vocational Certificate

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENTR 120</td>
<td>Introduction to Entrepreneurship</td>
<td>2</td>
</tr>
<tr>
<td>ENTR 180</td>
<td>Opportunity Analysis</td>
<td>2</td>
</tr>
<tr>
<td>ENTR 142</td>
<td>Fast Track Business Plan</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>TOTAL PROGRAM CREDIT HOURS</td>
<td>7</td>
</tr>
</tbody>
</table>

Entrepreneurship, A.A.S.

The small business sector is one of the fastest growing in the nation’s economy. With an ever-increasing number of adults today self-employed, many residents in Johnson County either work for a small business or plan to start their own. JCCC’s entrepreneurship program can help prospective entrepreneurs launch new ventures or, if you are an entrepreneur who already has your business established, you can strengthen your managerial and business skills to grow your business.

You will learn the fundamentals of starting and operating your own business. The program includes basic business skills as well as specific courses in starting and managing an entrepreneurial business. Course work covers evaluating a business opportunity, preparing a business plan, legal issues for small business, planning advertising and sales promotions, marketing a product or service, developing an accounting system and financial management for the entrepreneurial company.

You also will complete two internships in a small business. You can apply what you learn in the classroom to your job and take your work experiences back to the classroom for analysis.

Entrepreneurship

Associate of Applied Science Degree

First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENTR 120</td>
<td>Introduction to Entrepreneurship</td>
<td>2</td>
</tr>
<tr>
<td>BUS 230</td>
<td>Marketing</td>
<td>3</td>
</tr>
<tr>
<td>BUS 225</td>
<td>Human Relations</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 121</td>
<td>Composition I*</td>
<td>3</td>
</tr>
<tr>
<td>MATH 120</td>
<td>Business Math or higher*</td>
<td>3</td>
</tr>
<tr>
<td>Health and/or Physical Education Elective</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TOTAL CREDIT HOURS</td>
<td>15</td>
</tr>
</tbody>
</table>

Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENTR 180</td>
<td>Opportunity Analysis</td>
<td>2</td>
</tr>
<tr>
<td>ENTR 195</td>
<td>Franchising*</td>
<td>3</td>
</tr>
<tr>
<td>BUS 150</td>
<td>Business Communications*</td>
<td>3</td>
</tr>
<tr>
<td>MKT 134</td>
<td>Professional Selling</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 111</td>
<td>Small Business Accounting</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACCT 121</td>
<td>Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ECON 132</td>
<td>Survey of Economics</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECON 230</td>
<td>Economics I</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECON 231</td>
<td>Economics II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>TOTAL CREDIT HOURS</td>
<td>17</td>
</tr>
</tbody>
</table>

Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
</tr>
<tr>
<td>------------</td>
<td>-----------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>ENTR 131</td>
<td>Financial Management for Small Business*</td>
<td>2</td>
</tr>
<tr>
<td>ENTR 160</td>
<td>Legal Issues for Small Business</td>
<td>2</td>
</tr>
<tr>
<td>ENTR 210</td>
<td>Entrepreneurship Internship I*</td>
<td>1</td>
</tr>
<tr>
<td>BUS 140</td>
<td>Principles of Supervision</td>
<td>3</td>
</tr>
<tr>
<td>HIST 141</td>
<td>U.S. History Since 1877</td>
<td>3</td>
</tr>
<tr>
<td>CIS 124</td>
<td>Introduction to Computer Concepts and Applications</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CPCA/CDTP elective</td>
<td>1</td>
</tr>
<tr>
<td>Note:</td>
<td>CPCA 105/106 will not meet this one hour requirement.</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td>CPCA/CDTP electives</td>
<td>4</td>
</tr>
<tr>
<td>ENTR 225</td>
<td>Family Business*</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL CREDIT HOURS</td>
<td>18</td>
<td></td>
</tr>
</tbody>
</table>

**Fourth Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENTR 220</td>
<td>Entrepreneurial Marketing*</td>
<td>2</td>
</tr>
<tr>
<td>ENTR 142</td>
<td>Fast Trac Business Plan</td>
<td>3</td>
</tr>
<tr>
<td>ENTR 215</td>
<td>Entrepreneurship Internship II*</td>
<td>1</td>
</tr>
<tr>
<td>ENTR 190</td>
<td>Small Business Analysis*</td>
<td>2</td>
</tr>
<tr>
<td>PHIL 138</td>
<td>Business Ethics</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Humanities Elective</td>
<td>3</td>
</tr>
<tr>
<td>ENTR 240</td>
<td>Funding Acquisition for Entrepreneurs*</td>
<td>2</td>
</tr>
<tr>
<td>TOTAL CREDIT HOURS</td>
<td>14</td>
<td></td>
</tr>
</tbody>
</table>

**Additional Suggested Coursework**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 120</td>
<td>Management Attitudes and Motivation</td>
<td>3</td>
</tr>
<tr>
<td>BUS 123</td>
<td>Personal Finance</td>
<td>3</td>
</tr>
<tr>
<td>BUS 235</td>
<td>Introduction to International Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 141</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BUS 243</td>
<td>Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>BUS 261</td>
<td>Business Law I</td>
<td>3</td>
</tr>
<tr>
<td>BUS 263</td>
<td>Business Law II*</td>
<td>3</td>
</tr>
<tr>
<td>CPCA 105</td>
<td>Introduction to Personal Computers: Windows</td>
<td>1</td>
</tr>
<tr>
<td>CPCA 108</td>
<td>Word Processing I: MS Word*</td>
<td>1</td>
</tr>
<tr>
<td>CPCA 110</td>
<td>Spreadsheets I: MS Excel*</td>
<td>1</td>
</tr>
<tr>
<td>CPCA 111</td>
<td>Spreadsheets II: MS Excel*</td>
<td>1</td>
</tr>
<tr>
<td>CPCA 114</td>
<td>Databases I: MS Access*</td>
<td>1</td>
</tr>
<tr>
<td>CPCA 115</td>
<td>Databases II: MS Access*</td>
<td>2</td>
</tr>
<tr>
<td>CPCA 141</td>
<td>Internet I*</td>
<td>1</td>
</tr>
<tr>
<td>CPCA 151</td>
<td>Internet II*</td>
<td>1</td>
</tr>
<tr>
<td>FASH 231</td>
<td>Merchandising Planning and Control*</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 121</td>
<td>Perspectives of Hospitality Management</td>
<td>3</td>
</tr>
<tr>
<td>MKT 121</td>
<td>Retail Management</td>
<td>3</td>
</tr>
<tr>
<td>MKT 202</td>
<td>Consumer Behavior</td>
<td>3</td>
</tr>
<tr>
<td>MKT 234</td>
<td>Services Marketing*</td>
<td>3</td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required

**Entrepreneurship Certificate**

Students in entrepreneurship certificate programs learn the fundamentals of starting and operating their own businesses. Course work includes evaluating a business idea, preparing a business plan, financial management, legal issues, marketing a product or service and developing an accounting system.

(5080 52.0701)

Entrepreneurship

**Vocational Certificate**

**Prerequisites for Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 230</td>
<td>Marketing</td>
<td>3</td>
</tr>
</tbody>
</table>
ACCT 121  Accounting I...............................................3
or
ACCT 111  Small Business Accounting...........................3

**Required Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENTR 120</td>
<td>Introduction to Entrepreneurship</td>
<td>2</td>
</tr>
<tr>
<td>ENTR 180</td>
<td>Opportunity Analysis</td>
<td>2</td>
</tr>
<tr>
<td>ENTR 160</td>
<td>Legal Issues for Small Business</td>
<td>2</td>
</tr>
<tr>
<td>ENTR 210</td>
<td>Entrepreneurship Internship I*</td>
<td>1</td>
</tr>
<tr>
<td>CIS 124</td>
<td>Introduction to Computer Concepts and Applications</td>
<td>3</td>
</tr>
</tbody>
</table>
| or
| CPCA/CDTP electives | 3 |
| ENTR 131 | Financial Management for Small Business* | 2 |
| ENTR 195 | Franchising* | 3 |
| ENTR 220 | Entrepreneurial Marketing* | 2 |
| ENTR 142 | Fast Trac Business Plan | 3 |
| ENTR 190 | Small Business Analysis* | 2 |
| MKT 134 | Professional Selling | 3 |
| ENTR 225 | Family Business | 3 |
| ENTR 240 | Funding Acquisition for Entrepreneurs* | 2 |

**TOTAL PROGRAM CREDIT HOURS**........................30

**Additional Suggested Coursework**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 120</td>
<td>Management Attitudes and Motivation</td>
<td>3</td>
</tr>
<tr>
<td>BUS 123</td>
<td>Personal Finance</td>
<td>3</td>
</tr>
<tr>
<td>BUS 141</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BUS 235</td>
<td>Introduction to International Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 243</td>
<td>Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>BUS 261</td>
<td>Business Law I*</td>
<td>3</td>
</tr>
<tr>
<td>BUS 263</td>
<td>Business Law II*</td>
<td>3</td>
</tr>
<tr>
<td>CPCA 105</td>
<td>Introduction to Personal Computers: Windows</td>
<td>1</td>
</tr>
<tr>
<td>CPCA 108</td>
<td>Word Processing I: MS Word*</td>
<td>1</td>
</tr>
<tr>
<td>CPCA 110</td>
<td>Spreadsheets I: MS Excel*</td>
<td>1</td>
</tr>
<tr>
<td>CPCA 111</td>
<td>Spreadsheets II: MS Excel*</td>
<td>1</td>
</tr>
<tr>
<td>CPCA 114</td>
<td>Databases I: MS Access*</td>
<td>1</td>
</tr>
<tr>
<td>CPCA 115</td>
<td>Databases II: MS Access*</td>
<td>2</td>
</tr>
<tr>
<td>CPCA 141</td>
<td>Internet I*</td>
<td>1</td>
</tr>
<tr>
<td>CPCA 151</td>
<td>Internet II*</td>
<td>1</td>
</tr>
<tr>
<td>FASH 231</td>
<td>Merchandising Planning and Control*</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 121</td>
<td>Perspectives of Hospitality Management</td>
<td>3</td>
</tr>
<tr>
<td>MKT 121</td>
<td>Retail Management</td>
<td>3</td>
</tr>
<tr>
<td>MKT 202</td>
<td>Consumer Behavior</td>
<td>3</td>
</tr>
<tr>
<td>ENTR 215</td>
<td>Entrepreneurship Internship II*</td>
<td>1</td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required

---

**Fashion Merchandising, A.A.S.**

Rome, Paris, New York and Tokyo are centers of the fashion world. In today's fast-paced fashion market, these cities aren't that far ahead of your local shopping mall. Fashion is on the move -- in New York, Paris and Johnson County.

At JCCC, the fashion curriculum is designed to prepare you for a career in retail management, retail sales, apparel and textile design, promotion, display, illustration, and representative positions.

The program includes professional courses in merchandising, design, apparel construction, management, visual merchandising, creative selling and merchandise evaluation. To complement your education, you will also study important basic subjects such as business math, English, economics and marketing.

An associate of applied science degree is awarded after successful completion of the 65-credit-hour curriculum in fashion merchandising or fashion design. The program also offers an 18-credit-hour certificate in visual merchandising. Seminars in career options and industry topics are available. Required work-study internships in the fashion business of your choice will give you experience in technical, creative and merchandising skills and make you more marketable in the
industry.
With an associate’s degree or certificate, you’ll be ready to apply your energy and creativity in an industry that rewards both. Or, if you prefer to continue your education, you can complete a bachelor’s degree through a transfer program to a college or university.

(2520 19.0906)

Fashion Merchandising and Design

### Associate of Applied Science Degree

#### First Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASH 277</td>
<td>Fashion Seminar: Career Options</td>
<td>2</td>
</tr>
<tr>
<td>FASH 283</td>
<td>Fashion Internship I</td>
<td>1</td>
</tr>
<tr>
<td>FASH 121</td>
<td>Fashion Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>FASH 220</td>
<td>CAD Apparel Design</td>
<td>3</td>
</tr>
<tr>
<td>MKT 134</td>
<td>Professional Selling</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 121</td>
<td>Composition I*</td>
<td>3</td>
</tr>
<tr>
<td>FASH 135</td>
<td>Image Management</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

#### Second Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASH 242</td>
<td>Consumer Product Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>FASH 284</td>
<td>Fashion Internship II</td>
<td>1</td>
</tr>
<tr>
<td>MATH 120</td>
<td>Business Math or higher*</td>
<td>3</td>
</tr>
<tr>
<td>FASH 150</td>
<td>Textiles</td>
<td>3</td>
</tr>
<tr>
<td>FASH 125</td>
<td>Visual Merchandising</td>
<td>3</td>
</tr>
<tr>
<td>BUS 150</td>
<td>Business Communications*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td><strong>17</strong></td>
</tr>
</tbody>
</table>

#### Third Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 225</td>
<td>Human Relations</td>
<td>3</td>
</tr>
<tr>
<td>FASH 285</td>
<td>Fashion Internship III</td>
<td>1</td>
</tr>
<tr>
<td>FASH 132</td>
<td>Marketing Communications</td>
<td>3</td>
</tr>
<tr>
<td>MKT 121</td>
<td>Retail Management</td>
<td>3</td>
</tr>
<tr>
<td>ECON 132</td>
<td>Survey of Economics</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECON 230</td>
<td>Economics I*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Electives</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

#### Fourth Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASH 286</td>
<td>Fashion Internship IV*</td>
<td>1</td>
</tr>
<tr>
<td>BUS 230</td>
<td>Marketing</td>
<td>3</td>
</tr>
<tr>
<td>FASH 231</td>
<td>Merchandising Planning and Control*</td>
<td>3</td>
</tr>
<tr>
<td>FASH 280</td>
<td>Capstone: Industry Topics*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Humanities Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Electives</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td><strong>16</strong></td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL PROGRAM CREDIT HOURS</strong></td>
<td><strong>65</strong></td>
</tr>
</tbody>
</table>

#### Recommended Electives

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASH 123</td>
<td>Apparel Construction I</td>
<td>4</td>
</tr>
<tr>
<td>FASH 130</td>
<td>Fashion Illustration I</td>
<td>3</td>
</tr>
<tr>
<td>FASH 140</td>
<td>Garment Design I*</td>
<td>3</td>
</tr>
<tr>
<td>FASH 224</td>
<td>History of Costume</td>
<td>3</td>
</tr>
<tr>
<td>FASH 268</td>
<td>Field Study: The Market Center*</td>
<td>3</td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required
Fashion Design Entrepreneurship Certificate

The fashion design entrepreneurship certificate prepares students to realize their entrepreneurial dream of opening their own fashion design business. This certificate is designed to provide the student with basic skills in fashion design and small business development and management. Upon successful completion, students should be prepared to develop and sustain their own fashion design business venture.

(4110 19.0906)

Fashion Merchandising and Design

Vocational Certificate

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASH 121</td>
<td>Fashion Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>FASH 123</td>
<td>Apparel Construction I</td>
<td>4</td>
</tr>
<tr>
<td>FASH 130</td>
<td>Fashion Illustration I</td>
<td>3</td>
</tr>
<tr>
<td>FASH 150</td>
<td>Textiles</td>
<td>3</td>
</tr>
<tr>
<td>ENTR 120</td>
<td>Introduction to Entrepreneurship</td>
<td>2</td>
</tr>
<tr>
<td>ENTR 180</td>
<td>Opportunity Analysis</td>
<td>2</td>
</tr>
<tr>
<td>FASH 124</td>
<td>Apparel Construction II*</td>
<td>4</td>
</tr>
<tr>
<td>FASH 220</td>
<td>CAD Apparel Design</td>
<td>3</td>
</tr>
<tr>
<td>FASH 127</td>
<td>CAD: Pattern Design I*</td>
<td>4</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FASH 140</td>
<td>Garment Design I*</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FASH 143</td>
<td>Tailoring*</td>
<td>4</td>
</tr>
<tr>
<td>ENTR 142</td>
<td>Fast Trac Business Plan</td>
<td>2</td>
</tr>
<tr>
<td>FASH 283</td>
<td>Fashion Internship I</td>
<td>1</td>
</tr>
</tbody>
</table>

TOTAL PROGRAM CREDIT HOURS 31-32

*Prerequisite/Corequisite required

Additional Suggested Coursework

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENTR 220</td>
<td>Entrepreneurial Marketing*</td>
<td>2</td>
</tr>
<tr>
<td>ENTR 195</td>
<td>Franchising*</td>
<td>3</td>
</tr>
<tr>
<td>ENTR 131</td>
<td>Financial Management for Small Business*</td>
<td>2</td>
</tr>
<tr>
<td>ENTR 160</td>
<td>Legal Issues for Small Business</td>
<td>2</td>
</tr>
</tbody>
</table>

Fashion Design, A.A.S.

Rome, Paris, New York and Tokyo are centers of the fashion world. In today's fast-paced fashion market, these cities aren't that far ahead of your local shopping mall. Fashion is on the move -- in New York, Paris and Johnson County.

At JCCC, the fashion curriculum is designed to prepare you for a career in retail management, retail sales, apparel and textile design, promotion, display, illustration, and representative positions.

The program includes professional courses in merchandising, design, apparel construction, management, visual merchandising, creative selling and merchandise evaluation. To complement your education, you will also study important basic subjects such as business math, English, economics and marketing.

An associate of applied science degree is awarded after successful completion of the 64-credit-hour curriculum in fashion merchandising or fashion design. The program also offers an 18-credit-hour certificate in visual merchandising. Seminars in career options and industry topics are available. Required work-study internships in the fashion business of your choice will give you experience in technical, creative and merchandising skills and make you more marketable in the industry.

With an associate's degree or certificate, you'll be ready to apply your energy and creativity in an industry that rewards both. Or, if you prefer to continue your education, you can complete a bachelor's degree through a transfer program to a college or university.
Fashion Merchandising and Design

**Associate of Applied Science Degree**

**First Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASH 121</td>
<td>Fashion Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>FASH 123</td>
<td>Apparel Construction I</td>
<td>4</td>
</tr>
<tr>
<td>FASH 135</td>
<td>Image Management</td>
<td>1</td>
</tr>
<tr>
<td>FASH 220</td>
<td>CAD Apparel Design</td>
<td>3</td>
</tr>
<tr>
<td>FASH 277</td>
<td>Fashion Seminar: Career Options</td>
<td>2</td>
</tr>
<tr>
<td>ENGL 121</td>
<td>Composition I*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

**Second Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASH 124</td>
<td>Apparel Construction II*</td>
<td>4</td>
</tr>
<tr>
<td>FASH 130</td>
<td>Fashion Illustration I</td>
<td>3</td>
</tr>
<tr>
<td>FASH 150</td>
<td>Textiles</td>
<td>3</td>
</tr>
<tr>
<td>FASH 224</td>
<td>History of Costume</td>
<td>3</td>
</tr>
<tr>
<td>BUS 150</td>
<td>Business Communications*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Health and/or Physical Education Elective</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td><strong>17</strong></td>
</tr>
</tbody>
</table>

**Third Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASH 127</td>
<td>CAD: Pattern Design I*</td>
<td>4</td>
</tr>
<tr>
<td>FASH 242</td>
<td>Consumer Product Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>FASH 283</td>
<td>Fashion Internship I</td>
<td>1</td>
</tr>
<tr>
<td>MATH 120</td>
<td>Business Math or higher*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Fashion Electives</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Elective</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

**Fourth Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASH 279</td>
<td>Fashion Portfolio Development*</td>
<td>2</td>
</tr>
<tr>
<td>FASH 280</td>
<td>Capstone: Industry Topics*</td>
<td>3</td>
</tr>
<tr>
<td>FASH 284</td>
<td>Fashion Internship II</td>
<td>1</td>
</tr>
<tr>
<td>FASH 140</td>
<td>Garment Design I*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Humanities Electives</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Social Science and/or Economics Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td><strong>15</strong></td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL PROGRAM CREDIT HOURS</strong></td>
<td><strong>64</strong></td>
</tr>
</tbody>
</table>

**Suggested Fashion Electives**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASH 128</td>
<td>CAD: Pattern Design II*</td>
<td>4</td>
</tr>
<tr>
<td>FASH 143</td>
<td>Tailoring*</td>
<td>4</td>
</tr>
<tr>
<td>FASH 230</td>
<td>Fashion Illustration II*</td>
<td>3</td>
</tr>
<tr>
<td>FASH 268</td>
<td>Field Study: The Market Center*</td>
<td>3</td>
</tr>
<tr>
<td>BUS 225</td>
<td>Human Relations</td>
<td>3</td>
</tr>
<tr>
<td>MKT 134</td>
<td>Professional Selling</td>
<td>3</td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required

**Fashion Merchandising Entrep Certificate**

The fashion merchandising entrepreneurship certificate prepares students to realize their entrepreneurial dream of opening their own fashion retail business. This certificate is designed to provide the student with basic skills in fashion merchandising and small business development and management. Upon successful completion, students should be prepared to develop and sustain their own fashion retail business venture.
Vocational Certificate

Prerequisite for Required Courses

MATH 120  Business Math or higher*.............................3

Required Courses

FASH 121  Fashion Fundamentals..............................................3
FASH 125  Visual Merchandising.............................................3
MKT 134  Professional Selling...............................................3
ENTR 120  Introduction to Entrepreneurship............................2
ENTR 180  Opportunity Analysis............................................2
FASH 150  Textiles.........................................................3
FASH 242  Consumer Product Evaluation..................................3
FASH 231  Merchandising Planning and Control*..........................3
MKT 121  Retail Management...............................................3
ENTR 142  Fast Trac Business Plan........................................3
FASH 283  Fashion Internship I.............................................1

TOTAL PROGRAM CREDIT HOURS..................................29

Additional Suggested Coursework

ENTR 220  Entrepreneurial Marketing*.................................2
ENTR 195  Franchising*..................................................3
ENTR 131  Financial Management for Small Business*................2
ENTR 160  Legal Issues for Small Business..................2
*Prerequisite/Corequisite required

Visual Merchandising Certificate

The visual merchandising certificate provides students with the opportunity to prepare for positions in the retail and wholesale market as display designers or visual merchandise managers.

FASH 121  Fashion Fundamentals..............................................3
FASH 125  Visual Merchandising.............................................3
FASH 130  Fashion Illustration I.............................................3
FASH 132  Marketing Communications..........................3
FASH 150  Textiles.........................................................3
FASH 242  Consumer Product Evaluation..........................3

ENTR 120  Introduction to Entrepreneurship............................2
ENTR 180  Opportunity Analysis............................................2
MKT 121  Retail Management...............................................3
ITMD 127  Elements of Floral Design....................................1
ITMD 147  Lighting Basics*..............................................1
FASH 283  Fashion Internship I.............................................1
FASH 225  Store Planning*...............................................3

TOTAL PROGRAM CREDIT HOURS..................................18

*Prerequisite/Corequisite required

Recommended Fashion Electives for Certificate

FASH 130  Fashion Illustration I.............................................3
FASH 132  Marketing Communications..........................3
FASH 150  Textiles.........................................................3
FASH 242  Consumer Product Evaluation..........................3

Visual Merchandising Entrepreneurship Certificate

(7200 19.0906)
This certificate is designed for students interested in opening their own visual merchandising service business providing clients in the retail and wholesale market visual merchandising and design services.

Fashion Merchandising and Design

Vocational Certificate

Prerequisites for Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 230</td>
<td>Marketing</td>
<td>3</td>
</tr>
<tr>
<td>FASH 125</td>
<td>Visual Merchandising</td>
<td>3</td>
</tr>
</tbody>
</table>

Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASH 121</td>
<td>Fashion Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>ENTR 120</td>
<td>Introduction to Entrepreneurship</td>
<td>2</td>
</tr>
<tr>
<td>ENTR 180</td>
<td>Opportunity Analysis</td>
<td>2</td>
</tr>
<tr>
<td>ACCT 121</td>
<td>Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>ACCT 111 Small Business Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ITMD 127</td>
<td>Elements of Floral Design</td>
<td>1</td>
</tr>
<tr>
<td>ITMD 147</td>
<td>Lighting Basics*</td>
<td>1</td>
</tr>
<tr>
<td>FASH 225</td>
<td>Store Planning*</td>
<td>3</td>
</tr>
<tr>
<td>FASH 130</td>
<td>Fashion Illustration I</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>FASH 132 Marketing Communications</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>FASH 150 Textiles</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>FASH 242 Consumer Product Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>MKT 121</td>
<td>Retail Management</td>
<td>3</td>
</tr>
<tr>
<td>ENTR 131</td>
<td>Financial Management for Small Business</td>
<td>2</td>
</tr>
<tr>
<td>ENTR 142</td>
<td>Fast Trac Business Plan</td>
<td>3</td>
</tr>
<tr>
<td>ENTR 220</td>
<td>Entrepreneurial Marketing*</td>
<td>2</td>
</tr>
<tr>
<td>FASH 283</td>
<td>Fashion Internship I</td>
<td>1</td>
</tr>
</tbody>
</table>

TOTAL PROGRAM CREDIT HOURS: 29

*Prerequisite/Corequisite required

Fire Services Administration, A.A.

The goal of the fire science program at Johnson County Community College is to provide comprehensive education and training, specifically designed to:

- Promote the academic and professional development of fire service company-level officers.
- Prepare those seeking employment with fire service agencies of Johnson County. The program serves to provide higher academic education, technical training and lifelong learning for members of Johnson County fire-related organizations and those seeking employment in those organizations.

The fire science program at JCCC, in close cooperation with the Johnson County Fire Chiefs Association and the University of Kansas Fire and Rescue Training Institute, has developed a degree for advancement in the fire service and for further study toward the baccalaureate degree at a four-year institution, should you elect to pursue your education goals beyond the associate’s level.

The program emphasizes general education in addition to technical education and is built around a core of fire science courses carefully selected by the members of the Fire Science Advisory Committee to prepare for your career growth. Technical electives may be pursued through courses available under a continuing cooperative agreement between area fire science programs or through other degree-granting institutions that are accredited by the International Fire Service Accreditation Congress. The transfer of credit from other institutions is governed by JCCC policy. You may fulfill technical education requirements through the
advanced standing credit process.

JCCC also offers course work that will prepare you to take the Fire Fighter I and II certification examinations offered by the University of Kansas Fire and Rescue Training Institute. This course work includes FIRE 110, Essentials of Fire Fighting; EMS 130; HPER 240, Lifetime Fitness I; or equivalent. HPER 240, Lifetime Fitness I, is the prerequisite/corequisite for FIRE 110, Essentials of Fire Fighting.

Note: Mechanisms have been developed to compensate for the effect of students working 24-hour shifts.

(2320 43.0203)

**Associate of Arts Degree**

**Prerequisite**

Prior to admission into any FIRE course, the student must possess an International Fire Service Accreditation Congress certification as a firefighter or be an active member in a fire-related occupation.

**First Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 121</td>
<td>Composition I*</td>
<td>3</td>
</tr>
<tr>
<td>BUS 140</td>
<td>Principles of Supervision</td>
<td>3</td>
</tr>
<tr>
<td>MATH 171</td>
<td>College Algebra equivalent or higher*</td>
<td>3</td>
</tr>
<tr>
<td>FIRE 162</td>
<td>Fire Tactics and Strategy*</td>
<td>3</td>
</tr>
<tr>
<td>Social Science Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Health and/or Physical Education Elective</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td>16</td>
<td></td>
</tr>
</tbody>
</table>

**Second Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 122</td>
<td>Composition II*</td>
<td>3</td>
</tr>
<tr>
<td>BUS 141</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>FIRE 224</td>
<td>Incident Command Systems*</td>
<td>3</td>
</tr>
<tr>
<td>Humanities Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Physical Science, with lab</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td>16</td>
<td></td>
</tr>
</tbody>
</table>

**Third Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRE 135</td>
<td>Building and Fire Codes*</td>
<td>3</td>
</tr>
<tr>
<td>FIRE 130</td>
<td>Fire Investigation*</td>
<td>1</td>
</tr>
<tr>
<td>FIRE 222</td>
<td>Fire Science Law*</td>
<td>3</td>
</tr>
<tr>
<td>Technical Electives</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Oral Communication</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Science and/or Math Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td>16</td>
<td></td>
</tr>
</tbody>
</table>

**Fourth Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRE 220</td>
<td>Fire Administration*</td>
<td>3</td>
</tr>
<tr>
<td>FIRE 250</td>
<td>Fire Service Science Instructional Methodology*</td>
<td>3</td>
</tr>
<tr>
<td>Technical Electives</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Humanities Electives</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Social Science Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td>16</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL PROGRAM CREDIT HOURS</strong></td>
<td>64</td>
<td></td>
</tr>
</tbody>
</table>

**Technical Electives**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRE 110</td>
<td>Essentials of Fire Fighting*</td>
<td>9</td>
</tr>
<tr>
<td>EMS 128</td>
<td>EMS First Responder</td>
<td>5</td>
</tr>
<tr>
<td>EMS 130</td>
<td>Emergency Medical Technician*</td>
<td>9</td>
</tr>
<tr>
<td>EMS 220</td>
<td>MICT I*</td>
<td>10</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Name</td>
<td>Credit Hours</td>
</tr>
<tr>
<td>-------------</td>
<td>----------------------------------------------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>EMS 225</td>
<td>MICT II*</td>
<td>10</td>
</tr>
<tr>
<td>CS 200</td>
<td>Concepts of Programming Algorithms Using C++*</td>
<td>4</td>
</tr>
<tr>
<td>CS 205</td>
<td>Concepts of Programming Algorithms using JAVA*</td>
<td>4</td>
</tr>
<tr>
<td>CS 210</td>
<td>Discrete Structures I*</td>
<td>3</td>
</tr>
<tr>
<td>CIS 162</td>
<td>Database Programming*</td>
<td>4</td>
</tr>
<tr>
<td>CIS 242</td>
<td>Introduction to System Design and Analysis*</td>
<td>3</td>
</tr>
<tr>
<td>CIS 243</td>
<td>Object-Oriented Analysis and Design*</td>
<td>4</td>
</tr>
<tr>
<td>CIS 258</td>
<td>Operating Systems*</td>
<td>3</td>
</tr>
<tr>
<td>CIS 204</td>
<td>UNIX Operating System*</td>
<td>3</td>
</tr>
<tr>
<td>BUS 120</td>
<td>Management Attitudes and Motivation</td>
<td>3</td>
</tr>
<tr>
<td>BUS 121</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 145</td>
<td>Small Business Management</td>
<td>3</td>
</tr>
<tr>
<td>BUS 150</td>
<td>Business Communications*</td>
<td>3</td>
</tr>
<tr>
<td>BUS 225</td>
<td>Human Relations</td>
<td>3</td>
</tr>
<tr>
<td>BUS 230</td>
<td>Marketing</td>
<td>3</td>
</tr>
<tr>
<td>BUS 243</td>
<td>Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>BUS 261</td>
<td>Business Law I</td>
<td>3</td>
</tr>
<tr>
<td>BUS 265</td>
<td>Introduction to Public Administration</td>
<td>3</td>
</tr>
<tr>
<td>POLS 245</td>
<td>Introduction to Public Administration</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Prerequisite/Corequisite required</strong></td>
<td></td>
</tr>
</tbody>
</table>

---

**Game Art & Music Advanced Certificate**

The advanced certificate in game art and music provides tangible evidence that a student has completed all the requirements to be an entry level game programmer but with more depth in the art and music aspects of the industry.

(4170 11.0899)

Computing Sciences and Information Technology Department

**Vocational Certificate**

**Prerequisites for Required Courses**

Note: Prior to beginning the program, the student must take the following prerequisites, or have taken an equivalent transfer course, or have passed the waiver test, or have obtained a waiver from the program administrator.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDTP 135</td>
<td>Desktop Photo Manipulation I: Photoshop*</td>
<td>1</td>
</tr>
<tr>
<td>CS 200</td>
<td>Concepts of Programming Algorithms Using C++*</td>
<td>4</td>
</tr>
<tr>
<td>CIS 235</td>
<td>Object-Oriented Programming Using C++*</td>
<td>4</td>
</tr>
</tbody>
</table>

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANI 120</td>
<td>Conceptual Art for Animation</td>
<td>1</td>
</tr>
<tr>
<td>ANI 145</td>
<td>Introduction to 3D Animation*</td>
<td>3</td>
</tr>
<tr>
<td>ANI 245</td>
<td>Character Animation*</td>
<td>3</td>
</tr>
<tr>
<td>GAME 101</td>
<td>Computer Game Creation</td>
<td>4</td>
</tr>
<tr>
<td>GAME 140</td>
<td>Game Programming I - 2D*</td>
<td>4</td>
</tr>
<tr>
<td>GAME 150</td>
<td>Game Programming II - 2D*</td>
<td>4</td>
</tr>
<tr>
<td>GAME 200</td>
<td>Game Design</td>
<td>3</td>
</tr>
<tr>
<td>GAME 230</td>
<td>Game Programming III -3D*</td>
<td>4</td>
</tr>
<tr>
<td>MATH 191</td>
<td>Math &amp; Physics for Games I*</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 191</td>
<td>Math &amp; Physics for Games I*</td>
<td>4</td>
</tr>
<tr>
<td>MUS 156</td>
<td>MIDI Music Composition</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL PROGRAM CREDIT HOURS: 33

*Prerequisite/Corequisite required

---

**Game Business Advanced Certificate**

This certificate provides tangible evidence that a student has completed all the requirements to be an entry level game programmer or game business person.

(4160 11.0899)
Vocational Certificate

Prerequisites for Required Courses

Note: Prior to beginning the program, the student must take the following prerequisites, or have taken an equivalent transfer course, or have passed the waiver test (where applicable), or have obtained a waiver from the program administrator.

CIS 242 Introduction to System Design and Analysis*........3
CS 200 Concepts of Programming Algorithms Using C++*........4
CIS 235 Object-Oriented Programming Using C++*........4

Required Courses

CIS 262 Project Management*..................................3
GAME 101 Computer Game Creation............................4
GAME 102 The Business of Games................................3
GAME 140 Game Programming I - 2D*..........................4
GAME 150 Game Programming II - 2D*..........................4
GAME 200 Game Design..........................................3
GAME 230 Game Programming III - 3D*..........................4
MATH 191 Math & Physics for Games I*..........................4
or
PHYS 191 Math & Physics for Games I*..........................4
TOTAL PROGRAM CREDIT HOURS..........................29
*Prerequisite/Corequisite required

Game Development, A.A.S.

The game development associate of applied science degree provides students with the focused knowledge and understanding of game design and development useful in qualifying for entry level industry positions as game programmers, tool builders, collision detection developers, engine builders and interface programmers as well as video and online training developers, Q/A (Question/Answer) Testers, customer supporters and simulations developers. Completion of this degree program will greatly enhance students' ability to create code for 2D/3D graphics and real time virtual environments. Additional skills will include an understanding of game ethics, of the proper presentation of “game bibles” and of math and physics required to model a realistic game world.

Computing Sciences and Information Technology Department

Associate of Applied Science

Note: Prior to beginning the game development program, the student must take the following prerequisites, or have taken an equivalent transfer course, or have passed the waiver test (where applicable), or have obtained a waiver from the program administrator.

Prerequisites for Required Courses

CIS 134 Programming Fundamentals.............................4
CDTP 135 Desktop Photo Manipulation I: Photoshop*.........1

First Semester

CS 200 Concepts of Programming Algorithms Using C++*......4
GAME 101 Computer Game Creation...............................4
GAME 102 The Business of Games.................................3
ENGL 121  Composition I*.......................................3
MATH 171  College Algebra*....................................3
or
Any Precalculus/Calculus Course*............................3
TOTAL CREDIT HOURS.......................................17

**Second Semester**
GAME 140  Game Programming I - 2D*..........................4
CIS 235  Object-Oriented Programming Using C++*.............4
or
CS 250  Basic Data Structures using C++*.......................4
ANI 120  Conceptual Art for Animation..........................1
GAME 200  Game Design...........................................3
MATH 191  Math & Physics for Games I*.........................4
or
PHYS 191  Math & Physics for Games I*.........................4
TOTAL CREDIT HOURS.......................................16

**Third Semester**
ENGL 150  Digital Narratives*..................................3
GAME 150  Game Programming II - 2D*...........................4
GAME 230  Game Programming III - 3D*...........................4
ANI 145  Introduction to 3D Animation*.........................3
GAME 180  Artificial Intelligence for Games*...................3
Health and/or Physical Education Elective......................1
TOTAL CREDIT HOURS.......................................18

**Fourth Semester**
GAME 250  Game Programming IV - Capstone*......................4
GAME 110  Flash Gaming...........................................4
HUM 155  Classical Mythology....................................3
Social Science and/or Economics Elective.......................3
ENGL 140  Writing for Interactive Media*.......................3
TOTAL CREDIT HOURS.........................................17
TOTAL PROGRAM CREDIT HOURS...............................68

**Additional Suggested Coursework**
CIM 140  Interactive Media Assets*.............................4
ANI 245  Character Animation*....................................3
CIS 243  Object-Oriented Analysis and Design*..................4
CIS 262  Project Management*....................................3
MUS 156  MIDI Music Composition................................3
*Prerequisite/Corequisite required

**Game Entrepreneurship Advanced Certificate**
The advanced certificate in game entrepreneurship provides tangible evidence
that a student has completed all the requirements to be an entry level game
programmer with additional skills necessary to start a game company.
(4140 11.0899)
Computing Sciences and Information Technology Department

**Vocational Certificate**

**Prerequisites for Required Courses**
Note: Prior to beginning the program, the student must take
the following prerequisites, or have taken an equivalent
transfer course, or have passed the waiver test (where
applicable), or have obtained a waiver from the program
Game Narrative Advanced Certificate

The advanced certificate in game narrative will provide students with more depth in game narrative as well as tangible evidence that a student is skilled in basic programming for games.

(4130 11.0899)

Computing Sciences and Information Technology Department

Vocational Certificate

Prerequisites for Required Courses

Note: Prior to beginning the program, the student must take the following prerequisites, or have taken an equivalent course, or have passed the waiver test (where applicable), or have obtained a waiver from the program administrator:

ENGL 121 Composition I*.......................................3
CS  200 Concepts of Programming Algorithms Using C++*........4
CIS 235 Object-Oriented Programming Using C++*..............4

Required Courses

ENGL 150 Digital Narratives*........................................3
ENGL 140 Writing for Interactive Media*...........................3
GAME 101 Computer Game Creation.................................4
GAME 140 Game Programming I - 2D*..............................4
GAME 150 Game Programming II - 2D*..............................4
GAME 200 Game Design................................................3
GAME 230 Game Programming III - 3D*..............................4
HUM 155 Classical Mythology......................................3
MATH 191 Math & Physics for Games I*............................4
or
PHYS 191 Math & Physics for Games I*............................4

TOTAL PROGRAM CREDIT HOURS...................................32

*Prerequisite/Corequisite required

Game Programming Advanced Certificate

The advanced certificate in game programming provides tangible evidence that a
student has completed all the requirements to be an entry level game programmer with additional skills in the art of game programming.  
(4120 11.0899)  
Computing Sciences and Information Technology Department  

Vocational Certificate  

Prerequisites for Required Courses  

Note: Prior to beginning the program, the student must take the following prerequisites, or have taken an equivalent transfer course, or have passed the waiver test (where applicable), or have obtained a waiver from the program administrator:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 200</td>
<td>Concepts of Programming Algorithms Using C++*</td>
<td>4</td>
</tr>
<tr>
<td>CIS 235</td>
<td>Object-Oriented Programming Using C++*</td>
<td>4</td>
</tr>
</tbody>
</table>

Required Courses  

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GAME 101</td>
<td>Computer Game Creation</td>
<td>4</td>
</tr>
<tr>
<td>GAME 110</td>
<td>Flash Gaming</td>
<td>4</td>
</tr>
<tr>
<td>GAME 140</td>
<td>Game Programming I - 2D*</td>
<td>4</td>
</tr>
<tr>
<td>GAME 150</td>
<td>Game Programming II - 2D*</td>
<td>4</td>
</tr>
<tr>
<td>GAME 180</td>
<td>Artificial Intelligence for Games*</td>
<td>3</td>
</tr>
<tr>
<td>GAME 200</td>
<td>Game Design</td>
<td>3</td>
</tr>
<tr>
<td>GAME 230</td>
<td>Game Programming III - 3D*</td>
<td>4</td>
</tr>
<tr>
<td>MATH 191</td>
<td>Math &amp; Physics for Games I*</td>
<td>4</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHYS 191</td>
<td>Math &amp; Physics for Games I*</td>
<td>4</td>
</tr>
</tbody>
</table>

TOTAL PROGRAM CREDIT HOURS 30  

*Prerequisite/Corequisite required  

Geographic Info Systems Cert  

This is a professional certificate that gives the GIS user the tools needed to attract a good job in the exciting field of GIS or to advance in their chosen field. It also prepares students to complete their AA degree or transfer to a four year institution. GIS professionals are found in the fields of city, county and state business, economics, natural resources, conservation, pollution, industry, science, infrastructure planners, public works, transportation, architects, education, healthcare, travel, space industry.  

The JCCC geographic information systems program is offered to Johnson County residents in cooperation with Metropolitan Community Colleges of Kansas City. Required courses are taken at JCCC. You must be accepted as a student to JCCC and accepted into the program by MCC. Students must be residents of Johnson County in order to receive in-state tuition rates. Consult with a JCCC counselor for more information.  

Program courses and credit hours are subject to change because of requirement changes at the degree-granting institution. Contact www.mcckc.edu. Required GIS classes are taught at MCC-Longview and MCC-Maple Woods Community Colleges as early evening courses.  

For enrollment information regarding this cooperative program, go to Cooperative Program Information.  

Vocational Certificate  

Certificate granted by Metropolitan Community College  

Specific Program Requirements-must be taken MCC  

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>KEOG 120</td>
<td>Introduction to Geographic Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>KEOG 220</td>
<td>GIS Database and Design*</td>
<td>3</td>
</tr>
</tbody>
</table>


Graphic Design, A.A.S.

The graphic design field is highly competitive for both salaried and freelance positions. There is a demand for artists with above-average talents and graphic art skills. Opportunities in the field range from entry-level layout and production to art director positions.

Demonstrated abilities are most often the key to obtaining a position in the graphic design field. JCCC has structured its graphic design program to help the student develop a comprehensive portfolio. The student's work will be critiqued by a team of professionals every semester. These professionals working in the field, along with the faculty, will help develop the student's skills in creative problem solving and in the use of materials, processes, tools and equipment. Outstanding studio and computer facilities are available for working on class projects. The two-year curriculum consisting of 71 credit hours leads to an associate of applied science degree.
Note: Some courses are typically offered in the fall semester only, and some courses are typically offered in the spring semester only. This information can be found under the relevant course descriptions.

Graphic Design

**Associate of Applied Science Degree**  
**Transformation Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 124</td>
<td>Design 2D</td>
<td>3</td>
</tr>
<tr>
<td>GDES 120</td>
<td>Introduction to Graphic Design</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Humanities Electives</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>TOTAL CREDIT HOURS</td>
<td>9</td>
</tr>
</tbody>
</table>

**First Semester--Fall**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 129</td>
<td>Design Color</td>
<td>3</td>
</tr>
<tr>
<td>GDES 130</td>
<td>Drawing and Media Methods 1*</td>
<td>3</td>
</tr>
<tr>
<td>GDES 132</td>
<td>Typography*</td>
<td>3</td>
</tr>
<tr>
<td>PHOT 121</td>
<td>Fundamentals of Photography</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 121</td>
<td>Composition I*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>TOTAL CREDIT HOURS</td>
<td>15</td>
</tr>
</tbody>
</table>

**Second Semester--Spring**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 127</td>
<td>Design 3D*</td>
<td>3</td>
</tr>
<tr>
<td>GDES 131</td>
<td>Drawing and Media Methods 2*</td>
<td>3</td>
</tr>
<tr>
<td>GDES 134</td>
<td>Layout Design*</td>
<td>3</td>
</tr>
<tr>
<td>GDES 140</td>
<td>Technical Processes*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Humanities Electives</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>TOTAL CREDIT HOURS</td>
<td>15</td>
</tr>
</tbody>
</table>

**Third Semester--Fall**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDES 230</td>
<td>Drawing and Media Methods 3*</td>
<td>3</td>
</tr>
<tr>
<td>GDES 231</td>
<td>Advanced Typography*</td>
<td>3</td>
</tr>
<tr>
<td>GDES 235</td>
<td>Production Methods*</td>
<td>3</td>
</tr>
<tr>
<td>PHOT 123</td>
<td>Studio Photography*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>or</td>
<td></td>
</tr>
<tr>
<td>CIM 135</td>
<td>Digital Imaging and Video*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Social Science and/or Economics Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Health and/or Physical Education Elective</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>TOTAL CREDIT HOURS</td>
<td>16</td>
</tr>
</tbody>
</table>

**Fourth Semester--Spring**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDES 236</td>
<td>Electronic Production*</td>
<td>3</td>
</tr>
<tr>
<td>GDES 244</td>
<td>Communication Systems*</td>
<td>3</td>
</tr>
<tr>
<td>GDES 245</td>
<td>Advanced Design Practice*</td>
<td>3</td>
</tr>
<tr>
<td>GDES 272</td>
<td>Professional Preparation*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Science and/or Math Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Technical/Studio Elective</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>TOTAL CREDIT HOURS</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>TOTAL PROGRAM CREDIT HOURS</td>
<td>71</td>
</tr>
</tbody>
</table>

**Technical/Studio Electives**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDTP 151</td>
<td>Desktop Publishing II: QuarkXpress*</td>
<td>1</td>
</tr>
<tr>
<td>CDTP 171</td>
<td>Desktop Publishing III: QuarkXpress*</td>
<td>1</td>
</tr>
<tr>
<td>CDTP 145</td>
<td>Desktop Illustration I: Illustrator*</td>
<td>1</td>
</tr>
<tr>
<td>CDTP 155</td>
<td>Desktop Photo Manipulation II: Photoshop*</td>
<td>1</td>
</tr>
<tr>
<td>CDTP 165</td>
<td>Desktop Illustration II: Illustrator*</td>
<td>1</td>
</tr>
<tr>
<td>CDTP 185</td>
<td>Desktop Illustration III: Illustrator*</td>
<td>1</td>
</tr>
<tr>
<td>CWEB 105</td>
<td>Introduction to Web Pages: Dreamweaver*</td>
<td>1</td>
</tr>
<tr>
<td>CWEB 115</td>
<td>Intermediate Web Pages: Dreamweaver*</td>
<td>1</td>
</tr>
</tbody>
</table>
Health Information Tech, A.A.S

A health information technician has the technical skills needed to maintain the components of health information systems consistent with the medical, administrative, ethical, legal accreditation and regulatory requirements of the health care delivery system. Area hospitals and a variety of other health facilities in the community offer field experience in all procedures performed by the health information technician. When the 70-72 credit-hour program has been completed and the associate of applied science degree obtained, you will be eligible to take the accreditation examination of the American Association of Health Information Management.

Health information technology is a cooperative program between JCCC and MCC-Penn Valley Community College for Johnson County residents. You must be accepted as a student at JCCC and accepted into the program by MCC-Penn Valley. Consult with a JCCC counselor for more information.

Program courses and credit hours are subject to change because of requirement changes at the degree-granting institution. Contact MCC-Penn Valley Community College at 816-759-4231 for an application packet, which includes deadlines, program prerequisites and admission requirements.

For enrollment information regarding this cooperative program, go to Cooperative Program Information.

Associate of Applied Science Degree

Degree granted by Metropolitan Community College

General Education Requirements-must be taken at JCCC

BIOL 144 Human Anatomy and Physiology.................................5
BIOL 227 Human Pathophysiology*..........................................4
ENGL 121 Composition I*.........................................................3
SPD 121 Public Speaking............................................................3

Elective (Intro to Psych strongly recommended)..................3

American Institutions

HIST 140 U.S. History to 1877..................................................3
HIST 141 U.S. History Since 1877.............................................3
POLS 122 Political Science.........................................................3
POLS 124 American National Government.................................3
POLS 126 State and Local Government.......................................3
Certified Medication Aide Certificate

This 80-hour course covers information related to many commonly prescribed medications. Students learn the classification, side effects and techniques of administration, including preparations and accurate distribution of medications. The safety of clients in long-term care is also discussed and demonstrated by students in this course. Enrollees in this course must show proof of Kansas CNA certification and complete a reading level exam/assessment prior to admission. The Kansas CMA examination is administered to successful completers of this course.

The employment outlook for the future is excellent. Facilities employing the CMA include long-term care nursing centers as well as other types of group homes and agencies.

(3560 51.2603)

Health Occupations

Area Vocational School Certificate

Required Course

AVHO 104  Certified Medication Aide*..........................80

Note: TOTAL CONTACT HOURS.................................80

*Prerequisite/Corequisite required

Certified Medication Aide Update Certificate

Certified medication aides in Kansas are required to obtain 15 hours of continuing education every two years to renew the CMA certificate. This course meets the state requirements for recertification. This update course includes review of commonly used drugs and their interactions with foods and other drugs. Students will discuss and identify legal implications and regulations related to administration and record keeping. Biological effects of medications on the elderly and basic safety principles are reviewed and discussed with other CMAU course
participants. This course is available in the classroom and online. A roster of CMAs who complete the update course will be submitted to the Department of Health and Environment for certificate renewal.

(3600 51.2603)

Health Occupations

Area Vocational School Certificate

Required Course

AVHO 108 Certified Medication Aide Update*...................15

Note: TOTAL CONTACT HOURS.................................15

Certified Nurse Aide Certificate

This 96-hour course provides classroom and clinical instruction for basic care of clients in long-term and acute-care facilities. Students will learn skills for daily hygiene, bedside care, vital-sign measurement, positioning and safe transfer of clients. You will learn about common health problems and chronic illnesses. Clinical practice sessions are conducted in the nursing home setting.

Employment for workers with CNA skills and training is abundant in long-term care facilities. Acute-care hospitals also employ basic patient care aides who are willing to learn advanced skills.

Enrollees for this course must pass a reading level exam/assessment prior to admission. A current CPR for Health Care Providers card and documentation of current TB test is required. Upon successful completion of the course, students will be scheduled to take the Kansas CNA examination.

This course is offered in a classroom setting as well as online.

(3530 51.1614)

Health Occupations

Area Vocational School Certificate

Required Course

AVHO 102 Certified Nurse Aide*...............................96

Note: TOTAL CONTACT HOURS.................................96

Certified Nurse Aide Refresher Certificate

The CNA in Kansas is required to work at least eight hours every two years for the CNA certificate to remain active. If the CNA does not work for two years, a 21-hour refresher course must be completed. This course meets the state requirement to activate the CNA certificate.

Enrollees for CNA refresher course must show proof of certification as a Kansas CNA.

This course includes 12 hours of classroom instruction and 9 hours of laboratory experience. Students will discuss the nurse aide’s responsibility in the current health care system and the importance of resident’s rights. The student will demonstrate safety measures, infection control procedures, personal care skills, measurement of vital signs and transfers, positioning and turning.

(3540 51.1614)

Health Occupations

Area Vocational School Certificate

Required Course

AVHO 103 Certified Nurse Aide Refresher Course*.............21
Dental Assisting, A.A.S.

This program, which leads to either an associate in applied science degree or a certificate of proficiency, prepares the student to enter the workforce as a trained dental auxiliary. Graduates of this program are eligible to take the national certifying examination given by the Dental Assisting National Board.

Admission to the Dental Assisting Program - Because enrollment in the program is limited, a student must meet the requirements and apply for admission.

JCCC offers the cooperative dental assisting degree for Johnson County residents with MCC-Penn Valley Community College. You must be accepted as a student at JCCC and accepted into the program at MCC-Penn Valley Community College. The student is awarded the degree from MCC-Penn Valley Community College upon successful completion of all requirements. It is the student’s responsibility to check with a JCCC counselor before enrollment.

Program courses and credit hours are subject to change because of requirement changes at the degree-granting institution. Contact MCC-Penn Valley Community College at 816-759-4231 for an application packet, which includes deadlines, program prerequisites and admission requirements.

For enrollment information regarding this cooperative program, go to Cooperative Program Information.

Associate of Applied Science

Degree Granted by Metropolitan Community College

General Education Requirements-can be taken at JCCC

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 121</td>
<td>Composition I*</td>
<td>3</td>
</tr>
<tr>
<td>MATH 116</td>
<td>Intermediate Algebra or higher*</td>
<td>3</td>
</tr>
<tr>
<td>SPD 121</td>
<td>Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 130</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 122</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
</tbody>
</table>

American Institutions

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 140</td>
<td>U.S. History to 1877</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>HIST 141</td>
<td>U.S. History Since 1877</td>
</tr>
<tr>
<td>or</td>
<td>POLS 122</td>
<td>Political Science</td>
</tr>
<tr>
<td>or</td>
<td>POLS 124</td>
<td>American National Government</td>
</tr>
<tr>
<td>or</td>
<td>POLS 126</td>
<td>State and Local Government</td>
</tr>
</tbody>
</table>

Specific Program Requirements

The following courses can be taken at any campus

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 144</td>
<td>Human Anatomy and Physiology</td>
<td>5</td>
</tr>
<tr>
<td>and</td>
<td>BIOL 145</td>
<td>Human Anatomy and Physiology Dissection*</td>
</tr>
<tr>
<td>or</td>
<td>BIOL 140</td>
<td>Human Anatomy</td>
</tr>
<tr>
<td>and</td>
<td>BIOL 225</td>
<td>Human Physiology*</td>
</tr>
<tr>
<td>BIOL 230</td>
<td>Microbiology*</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 231</td>
<td>Microbiology Lab*</td>
<td>2</td>
</tr>
</tbody>
</table>
Specific Program Requirements-taken at MCC-Penn Valley

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>KSS 300</td>
<td>Affiliate Social Science</td>
<td>1-3</td>
</tr>
<tr>
<td>KDA 100</td>
<td>Introduction to Dental Assisting</td>
<td>1</td>
</tr>
<tr>
<td>KDA 101</td>
<td>Body Structure and Function*</td>
<td>2</td>
</tr>
<tr>
<td>KDA 102</td>
<td>Head &amp; Neck Anatomy*</td>
<td>2</td>
</tr>
<tr>
<td>KDA 103</td>
<td>Dental Anatomy</td>
<td>2</td>
</tr>
<tr>
<td>KDA 104</td>
<td>Dental Emergencies &amp; Pharmacology</td>
<td>1</td>
</tr>
<tr>
<td>KDA 105</td>
<td>Dental Materials I*</td>
<td>2</td>
</tr>
<tr>
<td>KDA 108</td>
<td>Oral Microbiology &amp; Infection Control</td>
<td>2</td>
</tr>
<tr>
<td>KDA 110</td>
<td>Chairside Assisting I*</td>
<td>5</td>
</tr>
<tr>
<td>KDA 115</td>
<td>Dental Radiology I*</td>
<td>4</td>
</tr>
<tr>
<td>KDA 125</td>
<td>Clinical Experience I*</td>
<td>2</td>
</tr>
<tr>
<td>KDA 205</td>
<td>Dental Materials II*</td>
<td>3</td>
</tr>
<tr>
<td>KDA 210</td>
<td>Chairside Assisting II*</td>
<td>5</td>
</tr>
<tr>
<td>KDA 215</td>
<td>Dental Radiology II*</td>
<td>2</td>
</tr>
<tr>
<td>KDA 225</td>
<td>Dental Office Management*</td>
<td>2</td>
</tr>
<tr>
<td>KDA 230</td>
<td>Oral Pathology*</td>
<td>2</td>
</tr>
<tr>
<td>KDA 250</td>
<td>Clinical Experience II*</td>
<td>4</td>
</tr>
<tr>
<td>KDA 260</td>
<td>Dental Assisting Seminar*</td>
<td>2</td>
</tr>
<tr>
<td>KDA 270</td>
<td>Expanded Functions in Restorative Dentistry*</td>
<td>1</td>
</tr>
<tr>
<td>KDA 271</td>
<td>Expanded Functions in Orthodontics*</td>
<td>5</td>
</tr>
<tr>
<td>KDA 272</td>
<td>Expanded Functions in Periodontics*</td>
<td>5</td>
</tr>
<tr>
<td>KDA 273</td>
<td>Expanded Functions in Prosthetic Dentistry*</td>
<td>1</td>
</tr>
</tbody>
</table>

TOTAL PROGRAM CREDIT HOURS: 78-85

*Prerequisite/Corequisite required

Note: For dental assistants who are already working and wish to obtain additional certification.

Dental Assisting Certificate

One of the most exciting features of a dental assistant career is the variety of work experiences you'll have, including working chair-side with dentists, taking radiographs, mixing dental materials, performing laboratory procedures, taking dental impressions, creating models, and fabricating bleaching trays and mouth guards. The demand for dental assistants and other professionals that dentists rely on to serve patients has increased dramatically.

The dental assistant program has accreditation from the American Dental Association (ADA), Commission on Dental Accreditation. Graduating from an ADA-accredited dental assisting program allows you to take the Dental Assisting National Board examination without the two years of full-time work experience that would otherwise be required.

JCCC offers the cooperative dental assisting certificate program for Johnson County residents with MCC-Penn Valley Community College. You must be accepted as a student at JCCC and accepted into the program at MCC-Penn Valley Community College. Consult with a JCCC counselor for more information.

Program courses and credit hours are subject to change because of requirement changes at the certificate-granting institution. Contact MCC-Penn Valley Community College at 816-759-4231 for an application packet, which includes deadlines, program prerequisites and admission requirements.

For enrollment information regarding this cooperative program, go to Cooperative Program Information.

Vocational Certificate

Certificate granted by Metropolitan Community College

Specific Program Requirements-must be taken at JCCC

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 121</td>
<td>Composition I*</td>
</tr>
</tbody>
</table>
Specific Program Requirements taken at MCC-Penn Valley

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>KDA 100</td>
<td>Introduction to Dental Assisting</td>
<td>1</td>
</tr>
<tr>
<td>KDA 101</td>
<td>Body Structure and Function*</td>
<td>2</td>
</tr>
<tr>
<td>KDA 102</td>
<td>Head &amp; Neck Anatomy*</td>
<td>2</td>
</tr>
<tr>
<td>KDA 103</td>
<td>Dental Anatomy</td>
<td>2</td>
</tr>
<tr>
<td>KDA 104</td>
<td>Dental Emergencies &amp; Pharmacology</td>
<td>1</td>
</tr>
<tr>
<td>KDA 105</td>
<td>Dental Materials I*</td>
<td>2</td>
</tr>
<tr>
<td>KDA 108</td>
<td>Oral Microbiology &amp; Infection Control</td>
<td>2</td>
</tr>
<tr>
<td>KDA 110</td>
<td>Chairside Assisting I*</td>
<td>5</td>
</tr>
<tr>
<td>KDA 115</td>
<td>Dental Radiology I*</td>
<td>4</td>
</tr>
<tr>
<td>KDA 125</td>
<td>Clinical Experience I*</td>
<td>2</td>
</tr>
<tr>
<td>KDA 205</td>
<td>Dental Materials II*</td>
<td>3</td>
</tr>
<tr>
<td>KDA 210</td>
<td>Chairside Assisting II*</td>
<td>5</td>
</tr>
<tr>
<td>KDA 215</td>
<td>Dental Radiology II*</td>
<td>2</td>
</tr>
<tr>
<td>KDA 225</td>
<td>Dental Office Management*</td>
<td>2</td>
</tr>
<tr>
<td>KDA 230</td>
<td>Oral Pathology*</td>
<td>2</td>
</tr>
<tr>
<td>KDA 250</td>
<td>Clinical Experience II*</td>
<td>4</td>
</tr>
<tr>
<td>KDA 260</td>
<td>Dental Assisting Seminar*</td>
<td>2</td>
</tr>
<tr>
<td>KDA 270</td>
<td>Expanded Functions in Restorative Dentistry*</td>
<td>1</td>
</tr>
<tr>
<td>KDA 271</td>
<td>Expanded Functions in Orthodontics*</td>
<td>5</td>
</tr>
<tr>
<td>KDA 272</td>
<td>Expanded Functions in Periodontics*</td>
<td>5</td>
</tr>
<tr>
<td>KDA 273</td>
<td>Expanded Functions in Prosthetic Dentistry*</td>
<td>1</td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required

Note: For dental assistants who are already working and wish to obtain additional certification.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>KDA 270</td>
<td>Expanded Functions in Restorative Dentistry*</td>
<td>1</td>
</tr>
<tr>
<td>KDA 271</td>
<td>Expanded Functions in Orthodontics*</td>
<td>5</td>
</tr>
<tr>
<td>KDA 272</td>
<td>Expanded Functions in Periodontics*</td>
<td>5</td>
</tr>
<tr>
<td>KDA 273</td>
<td>Expanded Functions in Prosthetic Dentistry*</td>
<td>1</td>
</tr>
</tbody>
</table>

TOTAL PROGRAM CREDIT HOURS 51-53

Home Health Aide Certificate

Home health care services are in demand, and continued growth in employment opportunities is expected into the next century. Home health aides may be required to provide support services for all age levels in the home setting. This 21-hour course will provide you with information necessary for nutritional meal planning, task modification, emotional support and personal services to clients and families needing health care assistance at home.

Enrollees for home health aide training must show proof of certification as a Kansas CNA and complete a reading comprehension exam/assessment prior to admission. A current CPR for Health Care Providers card and documentation of current TB test is required. The HHA course includes a practicum with local home health agencies. Those who successfully complete this course will be scheduled to take the Kansas HHA certification examination.

(3580 51.2602)

Health Occupations

Area Vocational School Certificate

Required Course

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVHO 106</td>
<td>Home Health Aide*</td>
<td>21</td>
</tr>
</tbody>
</table>

Note: TOTAL CONTACT HOURS 21

*Prerequisite/Corequisite required

IV Therapy for LPN's Certificate

This 48-hour course is designed to prepare the student for clients who require intravenous fluid therapy. Students are required to have at least one year of experience as a licensed nurse prior to taking this course. A current CPR for...
Health Care Providers card and documentation of current TB test is required. Enrollees for this course must submit proof of professional liability insurance. This course meets the Kansas requirements for nurses seeking certification in IV therapy.

During this course, you will review basic physiology of the circulatory system and learn principles of site selection for veins appropriate to assess for IV therapy. A pharmacology review will include action, interaction, breakdown and allergic responses to medications commonly administered via the intravenous route.

Equipment and supplies routinely used to initiate and administer IV therapy will be used in instruction. Principles of infection control, correct legal documentation and calculation of infusion rates will be taught.

You will use the laboratory setting to demonstrate the basic skills of initiating intravenous therapy along with a clinical session in a hospital setting. Upon completion of clinical requirements, a written comprehensive examination must be completed to earn IV therapy certification.

(3640 51.2602)

Health Occupations

Area Vocational School Certificate

Required Course

AVHO 115 IV Therapy For LPNs*...............................48

Note: TOTAL CONTACT HOURS............................................48

Occupational Therapy Asst, A.A.S.

The occupational therapy assistant works under the supervision of a registered occupational therapist, helping people with emotional and developmental limitations achieve more functional lives. Graduates are eligible to sit for the national certification examination for the occupational therapy assistant administered by the National Board for Certification in Occupational Therapy (NBCOT). After successful completion of the exam, the individual will be a Certified Occupational Therapy Assistant (COTA). Most states require licensure in order to practice; however, state licenses are usually based on the results of the NBCOT Certification Examination.

The JCCC occupational therapy assistant program is offered to Johnson County residents in cooperation with MCC-Penn Valley Community College. The support courses are held at JCCC. The clinical courses are held at MCC-Penn Valley or at affiliated clinical agencies. You must be accepted as a student at JCCC and accepted into the program at MCC-Penn Valley. Consult with a JCCC counselor for more information.

Program courses and credit hours are subject to change because of requirement changes at the degree-granting institution. Contact MCC-Penn Valley Community College at 816-759-4231 for an application packet, which includes deadlines, program prerequisites and admission requirements.

For enrollment information regarding this cooperative program, go to Cooperative Program Information.

Health Occupations

Associate of Applied Science Degree

Degree granted by Metropolitan Community College

General Education Requirements—must be taken at JCCC

ENGL 121 Composition I*.............................................3

SPD 121 Public Speaking..............................................3

PSYC 130 Introduction to Psychology...........................3

American Institutions

HIST 140 U.S. History to 1877.................................3

or
HIST 141 U.S. History Since 1877..........................3
or
POLS 122 Political Science..................................3
or
POLS 124 American National Government.........................3
or
POLS 126 State and Local Government............................3

Prerequisite Courses-must be taken at JCCC
CHEM 122 Principles of Chemistry..........................5
AAC 130 Medical Terminology..................................3

Specific Program Requirements-must be taken at JCCC

Option 1
BIOL 144 Human Anatomy and Physiology..........................5
and
BIOL 145 Human Anatomy and Physiology Dissection*.............1
Note: BIOL 144 must be taken before BIOL 145

or

Option 2
BIOL 140 Human Anatomy........................................4
and
BIOL 225 Human Physiology*....................................4
Note: BIOL 140 and CHEM 122 must be taken prior to BIOL 225

Specific Program Requirements-taken at MCC-Penn Valley
KSS 300 Affiliate Social Science..............................1-3
KOT 112 Basic Emergency Patient Care.............................1
KOT 100 Introduction to Occupational Therapy.....................2
KOT 102 Documentation Guidelines*..............................2
KOT 103 Clinical Conditions*.................................2
KOT 106 Therapeutic Interventions I*............................4
KOT 116 Level I Fieldwork I*.....................................1
KOT 118 Assistive Technology*..................................2
KOT 120 Pediatrics*........................................3
KOT 121 Level I Fieldwork II*....................................5
KOT 130 Analysis of Physical Performance*........................3
KOT 154 Applied Neurology*....................................2
KOT 201 Mental Health*.........................................2.5
KOT 202 Physical Dysfunction*..................................3
KOT 203 Gerontology*...........................................3
KOT 208 Therapeutic Interventions II*............................2
KOT 212 Level I Fieldwork III*...............................2
KOT 217 Fieldwork Seminar*.................................12
KOT 222 Level II Fieldwork*...................................12

TOTAL PROGRAM CREDIT HOURS..............................77-81

*Prerequisite/Corequisite required
NOTE: KOT 121 is .50 credit hours

Physical Therapist Asst, A.A.S
The physical therapist assistant, under the supervision of a licensed physical therapist, performs direct patient care. The therapist uses physical agents such as heat, light, sound, water, cold, massage, exercise and rehabilitation techniques as prescribed by a physician. The Commission on Accreditation in Physical Therapy Education accredits the program.

The JCCC physical therapist assistant program is offered to Johnson County residents in cooperation with MCC-Penn Valley Community College. The support
courses are held at JCCC. All the clinical courses are held at MCC-Penn Valley and affiliated clinical agencies. You must be accepted as a student at JCCC and accepted into the program at MCC-Penn Valley. Consult with a JCCC counselor for more information.

Program courses and credit hours are subject to change because of requirement changes at the degree-granting institution. Contact MCC-Penn Valley Community College at 816-759-4231 for an application packet, which includes deadlines, program prerequisites and admission requirements.

For enrollment information regarding this cooperative program, go to Cooperative Program Information.

## Associate of Applied Science Degree

Degree granted by Metropolitan Community College

### General Education Requirements-must be taken at JCCC

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 121</td>
<td>Composition I*</td>
<td>3</td>
</tr>
<tr>
<td>SPD 121</td>
<td>Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 130</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

### American Institutions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 140</td>
<td>U.S. History to 1877</td>
<td>3</td>
</tr>
<tr>
<td>or HIST 141</td>
<td>U.S. History Since 1877</td>
<td>3</td>
</tr>
<tr>
<td>or POLS 122</td>
<td>Political Science</td>
<td>3</td>
</tr>
<tr>
<td>or POLS 124</td>
<td>American National Government</td>
<td>3</td>
</tr>
<tr>
<td>or POLS 126</td>
<td>State and Local Government</td>
<td>3</td>
</tr>
</tbody>
</table>

### Prerequisite Courses-must be taken at JCCC

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 122</td>
<td>Principles of Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>AAC 130</td>
<td>Medical Terminology</td>
<td>3</td>
</tr>
</tbody>
</table>

### Specific Program Requirements-must be taken at JCCC

**Option 1**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 144</td>
<td>Human Anatomy and Physiology</td>
<td>5</td>
</tr>
<tr>
<td>and BIOL 145</td>
<td>Human Anatomy and Physiology Dissection*</td>
<td>1</td>
</tr>
<tr>
<td>Note: BIOL 144 must be taken first</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Option 2**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 140</td>
<td>Human Anatomy</td>
<td>4</td>
</tr>
<tr>
<td>and BIOL 225</td>
<td>Human Physiology*</td>
<td>4</td>
</tr>
<tr>
<td>Note: BIOL 140 and CHEM 122 must be taken before BIOL 225.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Specific Program Requirements-taken at MCC-Penn Valley

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>KSS 300</td>
<td>Affiliate Social Science</td>
<td>1-3</td>
</tr>
<tr>
<td>KPT 151</td>
<td>Introduction to Physical Therapy</td>
<td>2</td>
</tr>
<tr>
<td>Note: KPT 151 is a prerequisite course)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KPT 102</td>
<td>Basic Emergency Patient Care</td>
<td>1</td>
</tr>
<tr>
<td>KPT 152</td>
<td>Physical Therapy Fundamentals I*</td>
<td>4</td>
</tr>
</tbody>
</table>
Radiologic Technology, A.A.S.

The radiologic technology curriculum (X-ray technology) consists of a continuous 24-month period of study. Areas of study are radiographic exposure, positioning and anatomy, and the use of imaging equipment. The program is fully accredited by the Joint Review Committee on Education in Radiologic Technology.

The JCCC radiologic technology program is offered to Johnson County residents in cooperation with MCC-Penn Valley Community College. Related courses are taken at JCCC with lab and clinical courses held at MCC-Penn Valley or at a cooperating health facility. You must be accepted as a student at JCCC and accepted into the program by MCC-Penn Valley. Consult with a JCCC counselor for more information.

Program courses and credit hours are subject to change because of requirement changes at the degree-granting institution. Contact MCC-Penn Valley Community College at 816-759-4231 for an application packet, which includes deadlines, admission requirements and options for meeting academic criteria.

For enrollment information regarding this cooperative program, go to Cooperative Program Information.

Associate of Applied Science Degree

Degree granted by Metropolitan Community College

General Education Requirements-must be taken at JCCC

- ENGL 121 Composition I* ..................................3
- SPD 121 Public Speaking ..................................3
- PSYC 130 Introduction to Psychology ....................3

American Institutions

- HIST 140 U.S. History to 1877 ..........................3
  or
- HIST 141 U.S. History Since 1877 .......................3
  or
- POLS 122 Political Science .................................3
  or
- POLS 124 American National Government ...............3
  or
- POLS 126 State and Local Government ..................3

Specific Program Requirements-must be taken at JCCC

- BIOL 140 Human Anatomy .................................4
- AAC 130 Medical Terminology .............................3

Specific Program Requirements-taken at MCC-Penn Valley

- KSS 300 Affiliate Social Science ........................1-3
Rehabilitative Aide Certificate

The 32-hour rehabilitative aide course includes both classroom and laboratory instruction. The roles of the rehabilitative aide as a member of the health care team and in the aging process are emphasized. Students learn skills required to enhance the ability of elderly residents in long-term care. Skills required for residents with special needs are also learned. Student must have current CNA certification.

(3620 51.2601)

Health Occupations

Area Vocational School Certificate

Required Course

AVHO 112  Rehabilitative Aide* ................................................. 32
Note: TOTAL CONTACT HOURS ............................................ 32

Surgical Technology Cert

The surgical technology vocational certificate program leads to a certificate of proficiency and prepares students for entry-level jobs as operating room technicians.

JCCC offers the cooperative surgical vocational certificate program for Johnson County residents with MCC-Penn Valley Community College. You must be accepted as a student at JCCC and accepted into the program at MCC-Penn Valley Community College. Consult with a JCCC counselor for more information. Students must be a resident of Johnson County in order to receive in-state tuition rates.

Program courses and credit hours are subject to change at the certificate-granting institution. Contact MCC-Penn Valley Community College at 816-759-4231 for an application packet, which includes deadlines, program prerequisites, and admission requirements.

For enrollment information regarding this cooperative program, go to Cooperative Program Information.

Vocational Certificate

Certificate granted by Metropolitan Community College
The following courses should be taken first at JCCC

BIOL 144  Human Anatomy and Physiology.........................5
BIOL 145  Human Anatomy and Physiology Dissection*..............1

Specific Program Requirements-taken at MCC-Penn Valley

KST 100  Introduction to Surgical Technology........................2
KST 102  Fundamentals of Operating Room Technique*.................11
KST 105  Pharmacology for the Surgical Technologist*................2
KST 106  Aseptic Technique for the Surgical Technologist*...........2
KST 109  Principles/Surgical Procedure I*..............................8
KST 110  Principles/Surgical Proc II*.................................7
KST 114  Principles/Surgical Proc III*.................................7
KST 111  Career Development for the Surgical Technologist*........2

TOTAL PROGRAM CREDIT HOURS..........................47

*Prerequisite/Corequisite required

General Basic HVAC Certificate

This vocational certificate is the recommended first step to employment in the Heating, Ventilation and Air Conditioning field. It is 10 credit hours of basic knowledge in HVAC. This certificate is the first completion point for students in the HVAC field and verifies that the student can demonstrate several basic HVAC skills.

(3770 15.0501)

Heating, Ventilation, & Air Conditioning Technology

Vocational Certificate

Required Courses

HVAC 121  Basic Principles of HVAC*.................................4
HVAC 123  Electromechanical Systems.................................4
HVAC 150  Refrigerant Management and Certification................1
HVAC 155  Workplace Skills............................................1

TOTAL PROGRAM CREDIT HOURS..........................10

*Prerequisite/Corequisite required

General Basic HVAC Installation and Duct Fabrication Cert.

This vocational certificate provides the student with the fundamentals necessary to gain employment in the area of installation and duct fabrication in the heating and air conditioning field. It is 20 credit hours of basic knowledge in heating ventilation air conditioning, industrial safety, and sheet metal. This certificate is the beginning completion point for students in the HVAC field and verifies that the student can demonstrate several basic HVAC skills as they relate to installation and duct fabrication.

(3780 15.0501)

Heating, Ventilation, & Air Conditioning Technology

Vocational Certificate

Required Courses

HVAC 121  Basic Principles of HVAC*.................................4
HVAC 123  Electromechanical Systems.................................4
HVAC 150  Refrigerant Management and Certification................1
HVAC 155  Workplace Skills............................................1
INDT 125  Industrial Safety.............................................3
HVAC 167  Sheet Metal Layout and Fabrication......................3
General Basic HVAC Maintenance Certificate

This vocational certificate provides the student with the fundamentals necessary to gain employment in the area of maintenance in the heating and air conditioning field. It is 23 credit hours of basic knowledge in heating ventilation air conditioning, industrial safety, electrical wiring and plumbing. This certificate is the beginning completion point for students in the HVAC field and verifies that the student can demonstrate several basic HVAC skills as they relate to building maintenance.

(3790 15.0501)

Heating, Ventilation, & Air Conditioning Technology

Vocational Certificate

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HVAC 121</td>
<td>Basic Principles of HVAC*</td>
<td>4</td>
</tr>
<tr>
<td>HVAC 123</td>
<td>Electromechanical Systems</td>
<td>4</td>
</tr>
<tr>
<td>HVAC 150</td>
<td>Refrigerant Management and Certification</td>
<td>1</td>
</tr>
<tr>
<td>HVAC 155</td>
<td>Workplace Skills</td>
<td>1</td>
</tr>
<tr>
<td>INDT 125</td>
<td>Industrial Safety</td>
<td>3</td>
</tr>
<tr>
<td>HVAC 167</td>
<td>Sheet Metal Layout and Fabrication</td>
<td>3</td>
</tr>
<tr>
<td>HVAC 146</td>
<td>Plumbing Systems Applications</td>
<td>3</td>
</tr>
<tr>
<td>ELTE 125</td>
<td>Residential Wiring Methods*</td>
<td>4</td>
</tr>
<tr>
<td>TOTAL</td>
<td>PROGRAM CREDIT HOURS</td>
<td>23</td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required

General Basic HVAC Sales, Design and Estimating Cert.

This vocational certificate is the recommended first step to employment in the area of sales, design and estimating in the heating and air conditioning field. It is 20 credit hours of basic knowledge in HVAC with an emphasis on design and marketing. This certificate is a beginning completion point for students in the HVAC field and verifies that the student can demonstrate several basic HVAC and selling skills.

(3800 15.0501)

Heating, Ventilation, & Air Conditioning Technology

Vocational Certificate

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HVAC 121</td>
<td>Basic Principles of HVAC*</td>
<td>4</td>
</tr>
<tr>
<td>HVAC 123</td>
<td>Electromechanical Systems</td>
<td>4</td>
</tr>
<tr>
<td>HVAC 150</td>
<td>Refrigerant Management and Certification</td>
<td>1</td>
</tr>
<tr>
<td>HVAC 155</td>
<td>Workplace Skills</td>
<td>1</td>
</tr>
<tr>
<td>ENGL 121</td>
<td>Composition I*</td>
<td>3</td>
</tr>
<tr>
<td>HVAC 124</td>
<td>Equipment Selection and Duct Design</td>
<td>4</td>
</tr>
<tr>
<td>MKT 134</td>
<td>Professional Selling</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL</td>
<td>PROGRAM CREDIT HOURS</td>
<td>20</td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required

HVAC Commercial Service Technician, A.A.S.

Modern residential, commercial, institutional and manufacturing operations depend on carefully monitored temperature conditions and well-trained installation
and service technicians. Government researchers say graduates of training programs that emphasize hands-on experience will have a definite advantage when seeking employment in heating, ventilation and air conditioning technology. JCCC provides you the opportunity to work on actual equipment while pursuing a degree or certificate program. The 64-credit-hour associate of applied science degree program focuses on developing an awareness of basic mathematical and scientific principles. The curriculum is concerned with the manner by which these principles affect the control of temperature and the quality of air, design, testing, installation and development of heating and cooling systems.

If you select the commercial maintenance technician degree, you will learn the special emphasis is on energy conservation through computer management. The theory of operation as well as installation, service and repair of rooftop air conditioners, cooling towers, steam boilers and commercial systems air conditioning are part of the curriculum. In addition to the 31 core hours, the following courses are required for the A.A.S. degree, facilities maintenance technician option.

(2870 15.0501)

Heating, Ventilation, & Air Conditioning Technology

## Associate of Applied Science Degree

### First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HVAC 121</td>
<td>Basic Principles of HVAC*</td>
<td>4</td>
</tr>
<tr>
<td>HVAC 123</td>
<td>Electromechanical Systems</td>
<td>4</td>
</tr>
<tr>
<td>HVAC 143</td>
<td>Reading Blueprints and Ladder Diagrams</td>
<td>2</td>
</tr>
<tr>
<td>HVAC 155</td>
<td>Workplace Skills</td>
<td>1</td>
</tr>
<tr>
<td>INDT 125</td>
<td>Industrial Safety</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 121</td>
<td>Composition I*</td>
<td>3</td>
</tr>
<tr>
<td>EMS 121</td>
<td>CPR I - Basic Life Support for Healthcare Provider</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td><strong>18</strong></td>
</tr>
</tbody>
</table>

### Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HVAC 146</td>
<td>Plumbing Systems Applications</td>
<td>3</td>
</tr>
<tr>
<td>HVAC 150</td>
<td>Refrigerant Management and Certification</td>
<td>1</td>
</tr>
<tr>
<td>HVAC 167</td>
<td>Sheet Metal Layout and Fabrication</td>
<td>3</td>
</tr>
<tr>
<td>HVAC 221</td>
<td>Commercial Systems: Air Conditioning*</td>
<td>4</td>
</tr>
<tr>
<td>HVAC 231</td>
<td>HVAC Rooftop Units*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

### Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 133</td>
<td>Technical Mathematics I*</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Social Science and/or Economic Elective</td>
<td>3</td>
</tr>
<tr>
<td>HVAC 223</td>
<td>Commercial Systems: Heating*</td>
<td>4</td>
</tr>
<tr>
<td>ELTE 122</td>
<td>National Electrical Code I</td>
<td>4</td>
</tr>
<tr>
<td>CFCA 105</td>
<td>Introduction to Personal Computers: Windows</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

### Fourth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HVAC 229</td>
<td>Advanced Control Systems*</td>
<td>4</td>
</tr>
<tr>
<td>ELTE 205</td>
<td>Industrial Electrical Wiring*</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Technical Elective</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Humanities Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>General Education Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td><strong>16</strong></td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL PROGRAM CREDIT HOURS</strong></td>
<td><strong>64</strong></td>
</tr>
</tbody>
</table>

### Technical Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HVAC 125</td>
<td>Energy Alternatives</td>
<td>2</td>
</tr>
<tr>
<td>HVAC 271</td>
<td>HVAC Internship*</td>
<td>3</td>
</tr>
<tr>
<td>HVAC 291</td>
<td>Independent Study</td>
<td>1-7</td>
</tr>
<tr>
<td>ELTE 125</td>
<td>Residential Wiring Methods*</td>
<td>4</td>
</tr>
</tbody>
</table>

---

**spring-2007 Copyright 2007 Johnson County Community College Page 113**
**HVAC Commercial Service Technician Certificate**

The postsecondary certificate program is designed to prepare you for the basic job skills needed to service and maintain heating and air conditioning equipment. Students who elect the facilities maintenance technician certificate option learn the theory of operation and how to service, repair and design rooftop air conditioners, cooling towers, steam boilers and commercial systems air conditioners. This knowledge is reinforced by working on actual equipment in the laboratory. Completion of this program will allow the student to seek employment as a commercial maintenance and service technician in the heating/air conditioning trade.

(6250 15.0501)

Heating, Ventilation, & Air Conditioning Technology

**Postsecondary Certificate**

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 121</td>
<td>Composition I*</td>
<td>3</td>
</tr>
<tr>
<td>HVAC 121</td>
<td>Basic Principles of HVAC*</td>
<td>4</td>
</tr>
<tr>
<td>HVAC 123</td>
<td>Electromechanical Systems</td>
<td>4</td>
</tr>
<tr>
<td>HVAC 143</td>
<td>Reading Blueprints and Ladder Diagrams</td>
<td>2</td>
</tr>
<tr>
<td>HVAC 150</td>
<td>Refrigerant Management and Certification</td>
<td>1</td>
</tr>
<tr>
<td>HVAC 167</td>
<td>Sheet Metal Layout and Fabrication</td>
<td>3</td>
</tr>
<tr>
<td>HVAC 221</td>
<td>Commercial Systems: Air Conditioning*</td>
<td>4</td>
</tr>
<tr>
<td>HVAC 223</td>
<td>Commercial Systems: Heating*</td>
<td>4</td>
</tr>
<tr>
<td>HVAC 229</td>
<td>Advanced Control Systems*</td>
<td>4</td>
</tr>
<tr>
<td>HVAC 231</td>
<td>HVAC Rooftop Units*</td>
<td>3</td>
</tr>
<tr>
<td>INDT 125</td>
<td>Industrial Safety</td>
<td>3</td>
</tr>
<tr>
<td>HVAC 148</td>
<td>HVAC Installation and Start-up Procedures*</td>
<td>3</td>
</tr>
<tr>
<td>MATH 115</td>
<td>Introduction to Algebra*</td>
<td>1</td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required

**HVAC Installation Technician Certificate**

The heating, ventilation and air conditioning vocational certificate program is a one-year program you can complete in two semesters. The program is designed as a fast track to employment for both new students into the job market and those who have been displaced from their jobs due to changes in the employment market. Upon successful completion of the program, you will be equipped with the entry-level technical skills necessary to enter the job market as an installation technician in the heating/air conditioning trade.

(6270 15.0501)

Heating, Ventilation, & Air Conditioning Technology

**Vocational Certificate**

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HVAC 121</td>
<td>Basic Principles of HVAC*</td>
<td>4</td>
</tr>
<tr>
<td>HVAC 123</td>
<td>Electromechanical Systems</td>
<td>4</td>
</tr>
<tr>
<td>HVAC 167</td>
<td>Sheet Metal Layout and Fabrication</td>
<td>3</td>
</tr>
<tr>
<td>HVAC 155</td>
<td>Workplace Skills</td>
<td>1</td>
</tr>
<tr>
<td>INDT 125</td>
<td>Industrial Safety</td>
<td>3</td>
</tr>
<tr>
<td>HVAC 148</td>
<td>HVAC Installation and Start-up Procedures*</td>
<td>3</td>
</tr>
<tr>
<td>HVAC 146</td>
<td>Plumbing Systems Applications</td>
<td>3</td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required
HVAC Residential Service Technician, A.A.S.

Modern residential, commercial, institutional and manufacturing operations depend on carefully monitored temperature conditions and well-trained installation and service technicians. Government researchers say graduates of training programs that emphasize hands-on experience will have a definite advantage when seeking employment in heating, ventilation and air conditioning technology. JCCC provides you the opportunity to work on actual equipment while pursuing a degree or certificate program. The 64-credit-hour associate of applied science degree program focuses on developing an awareness of basic mathematical and scientific principles. The curriculum is concerned with the manner by which these principles affect the control of temperature and the quality of air, design, testing, installation and development of heating and cooling systems.

If you select the residential degree, you will learn the theory of operation as well as installation, duct design, service and repair of gas and electric furnaces, heat pumps and central air conditioners. In addition to the 31 core hours, the following courses are required for the A.A.S. degree, residential option.

(2880 15.0501)
Heating, Ventilation, & Air Conditioning Technology

Associate of Applied Science Degree

First Semester

HVAC 121 Basic Principles of HVAC*............................4
HVAC 123 Electromechanical Systems............................4
HVAC 143 Reading Blueprints and Ladder Diagrams...............2
HVAC 155 Workplace Skills.....................................1
INDT 125 Industrial Safety....................................3
ENGL 121 Composition I*.......................................3
EMS 121 CPR I - Basic Life Support for Healthcare Provider...1
TOTAL CREDIT HOURS..................................18

Second Semester

HVAC 146 Plumbing Systems Applications........................3
HVAC 150 Refrigerant Management and Certification............1
HVAC 137 Residential Systems: Air Conditioning*...............4
HVAC 124 Equipment Selection and Duct Design*.................4
HVAC 167 Sheet Metal Layout and Fabrication...................3
TOTAL CREDIT HOURS..................................15

Third Semester

MATH 133 Technical Mathematics I*.............................4
Social Science and/or Economics Elective........................3
HVAC 127 Residential Systems: Heating*........................4
HVAC 148 HVAC Installation and Start-up Procedures*...........3
Technical Elective..............................................3
TOTAL CREDIT HOURS.....................................17

Fourth Semester

HVAC 235 Residential Heat Pump Systems*........................4
Humanities Elective.............................................3
Technical Electives............................................4
General Education Elective.....................................3
TOTAL CREDIT HOURS........................................14
TOTAL PROGRAM CREDIT HOURS.................................64
Technical Electives
AUTO 230 Automotive Heating and Air Conditioning*.............3
ELTE 122 National Electrical Code I................................4
ELTE 125 Residential Wiring Methods*..........................4
HVAC 125 Energy Alternatives....................................2
HVAC 271 HVAC Internship*.....................................3
HVAC 291 Independent Study....................................1-7

General Education Electives
ENGL 123 Technical Writing I*.................................3
SPD 120 Interpersonal Communication........................3
*Prerequisite/Corequisite required

HVAC Residential Service Technician Certificate
The postsecondary certificate program is designed to prepare you for the basic
job skills needed to service residential heating and air conditioning equipment.
Students who elect the residential service certificate option learn the theory of
operation and how to service, repair and design gas furnaces, central air
conditioners, heat pumps and rooftop air conditioning systems. This knowledge is
reinforced by working on actual equipment in the laboratory. Completion of this
program will allow the student to seek employment as a residential maintenance
and service technician in the heating/air conditioning trade.

(6260 15.0501)
Heating, Ventilation, & Air Conditioning Technology

Postsecondary Certificate
Required Courses
ENGL 121 Composition I*.......................................3
HVAC 121 Basic Principles of HVAC*............................4
HVAC 123 Electromechanical Systems............................4
HVAC 124 Equipment Selection and Duct Design*...............4
HVAC 150 Refrigerant Management and Certification.........1
HVAC 137 Residential Systems: Air Conditioning*.............4
HVAC 127 Residential Systems: Heating*........................4
HVAC 235 Residential Heat Pump Systems*.......................4
HVAC 167 Sheet Metal Layout and Fabrication..................3
HVAC 155 Workplace Skills....................................1
MATH 115 Introduction to Algebra*..............................3
Technical Electives............................................3
TOTAL PROGRAM CREDIT HOURS..................................38

Technical Electives
HVAC 125 Energy Alternatives....................................2
HVAC 143 Reading Blueprints and Ladder Diagrams.............2
HVAC 271 HVAC Internship*.....................................3
HVAC 291 Independent Study....................................1
CPA 105 Introduction to Personal Computers: Windows.......1
INDT 125 Industrial Safety....................................3
*Prerequisite/Corequisite required

Horticulture Certificate
Programs in some career areas are made available by means of cooperative
agreements with other educational institutions. These cooperative agreements
have resulted in the sharing of programming, curriculum and staffing in the greater
Kansas City area and have promoted increased economies of operations for
cooperating institutions. The horticultural certificate program is a cooperative

spring-2007 Copyright 2007 Johnson County Community College Page 116
The 29-credit-hour certificate granted by Johnson County Community College is a certificate program designed to prepare students for a career in the "greening industry." Upon completion of this certificate, students will possess the competencies to be successful at entry-level or higher positions in landscape design and maintenance, lawn care, garden centers and nurseries, wholesale greenhouse growers, and greenhouse operations and other related occupations. Note: Metropolitan Community College students should seek specific counsel from the JCCC program personnel for the appropriate course plan and numbers. Missouri students should refer to Cooperative Program Information.

(6180 01.0601)

Science Department

Vocational Certificate

First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HORT 140</td>
<td>Turfgrass</td>
<td>3</td>
</tr>
<tr>
<td>HORT 214</td>
<td>Woody Plants I, Deciduous</td>
<td>3</td>
</tr>
<tr>
<td>HORT 220</td>
<td>Herbaceous Plants</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>(choose from list below)</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL</td>
<td>CREDIT HOURS</td>
<td>12</td>
</tr>
</tbody>
</table>

Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HORT 215</td>
<td>Woody Plants II, Evergreens</td>
<td>3</td>
</tr>
<tr>
<td>HORT 225</td>
<td>Plant Problems*</td>
<td>3</td>
</tr>
<tr>
<td>HORT 135</td>
<td>Landscape Design</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL</td>
<td>CREDIT HOURS</td>
<td>9</td>
</tr>
</tbody>
</table>

Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HORT 235</td>
<td>Landscape Maintenance and Techniques</td>
<td>3</td>
</tr>
<tr>
<td>HORT 150</td>
<td>Fruits, Vegetables and Herb Crops</td>
<td>2</td>
</tr>
<tr>
<td>Elective</td>
<td>(choose from list below)</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL</td>
<td>CREDIT HOURS</td>
<td>8</td>
</tr>
<tr>
<td>TOTAL</td>
<td>PROGRAM CREDIT HOURS</td>
<td>29</td>
</tr>
<tr>
<td>*Prerequisite/Corequisite required</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 121</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 145</td>
<td>Small Business Management</td>
<td>3</td>
</tr>
<tr>
<td>HORT 160</td>
<td>Garden Center Operations</td>
<td>3</td>
</tr>
<tr>
<td>SPD 128</td>
<td>Business and Professional Speech</td>
<td>3</td>
</tr>
</tbody>
</table>

Landscape Technician Certificate

The 31-credit-hour certificate program is designed to prepare students for a career in landscape design and maintenance. Upon completion of this certificate, students will possess the competencies to be successful at entry-level or higher positions in landscape design and maintenance and other related occupations. A full-time student can complete this certificate in a fall-spring sequence year.

(6190 01.0601)

Science Department

Vocational Certificate

First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HORT 201</td>
<td>Introduction to Horticultural Science</td>
<td>4</td>
</tr>
</tbody>
</table>
HORT 214  Woody Plants I, Deciduous..........................3
HORT 140  Turfgrass............................................3
TOTAL CREDIT HOURS..................................10

Second Semester
HORT 220  Herbaceous Plants....................................3
HORT 205  Plant Propagation*.................................3
HORT 260  Horticulture Soils................................3
TOTAL CREDIT HOURS...................................9

Third Semester
HORT 135  Landscape Design.....................................3
HORT 225  Plant Problems*......................................3
TOTAL CREDIT HOURS...................................6

Fourth Semester
HORT 235  Landscape Maintenance and Techniques.................3
HORT 265  Landscape Construction...............................3
TOTAL CREDIT HOURS...................................6
TOTAL PROGRAM CREDIT HOURS..........................31
*Prerequisite/Corequisite required

Chef Apprenticeship, A.A.S.

The hospitality management program at JCCC is a comprehensive study of the food service and public lodging industries. The program is accredited by the American Culinary Federation Educational Institute Accrediting Commission.

The chef apprenticeship program at the college is sponsored by the American Culinary Federation and the U.S. Department of Labor. The three-year program has special admission requirements. You must be 18 years old and have a high school diploma or the equivalent.

The career program features formal course work along with the opportunity to actually practice such skills as baking, menu planning, food purchasing, beverage control and food preparation. After job placement, you join the American Culinary Federation Educational Institute for registered apprentice membership. Likewise, you register with the Department of Labor and will be officially indentured to supervising chefs and the sponsoring American Culinary Federation affiliate chapter for 6,000 hours. The program consists of 75 credit hours and leads to an associate of applied science degree.

Note: Metropolitan Community College students should seek specific counsel from the JCCC program personnel for the appropriate course plan and numbers. Missouri students should refer to Cooperative Program Information.

Hospitality Management

Associate of Applied Science Degree

First Semester
HMGT 121  Perspectives of Hospitality Management.................3
HMGT 123  Professional Cooking I*..............................3
MATH 120  Business Math or higher*.............................3
HMGT 120  Food Service Sanitation................................1
HMGT 281  Culinary Arts Practicum I*............................2
TOTAL CREDIT HOURS..................................12

Second Semester
HMGT 273  Hospitality Cost Accounting*.........................3
HMGT 230  Professional Cooking II*............................3
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMEC 151</td>
<td>Nutrition and Meal Planning</td>
<td>3</td>
</tr>
<tr>
<td>CFCA</td>
<td>Computer Elective</td>
<td>1</td>
</tr>
<tr>
<td>HMGT 282</td>
<td>Culinary Arts Practicum II*</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

**Summer**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 121</td>
<td>Composition I*</td>
<td>3</td>
</tr>
<tr>
<td>SPD 120</td>
<td>Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>SPD 121 Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>SPD 125 Personal Communication</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td><strong>6</strong></td>
</tr>
</tbody>
</table>

**Third Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMGT</td>
<td>Hospitality Program Elective</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 271</td>
<td>Seminar in Hospitality Management: Purchasing</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 220</td>
<td>American Regional Cuisine*</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 285</td>
<td>Culinary Arts Practicum III*</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td><strong>11</strong></td>
</tr>
</tbody>
</table>

**Fourth Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMGT 226</td>
<td>Garde Manger*</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 223</td>
<td>Fundamentals of Baking</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 277</td>
<td>Seminar in Hospitality Management: Menu Planning*</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 286</td>
<td>Culinary Arts Practicum IV*</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td><strong>11</strong></td>
</tr>
</tbody>
</table>

**Fifth Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMGT 231</td>
<td>Advanced Food Preparation*</td>
<td>4</td>
</tr>
<tr>
<td>HMGT 279</td>
<td>Beverage Control</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 121</td>
<td>Applied Psychology</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>PSYC 130 Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 287</td>
<td>Culinary Arts Practicum V*</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

**Sixth Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMGT 128</td>
<td>Supervisory Management</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 228</td>
<td>Advanced Hospitality Management*</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 288</td>
<td>Culinary Arts Practicum VI*</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Humanities Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td><strong>11</strong></td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL PROGRAM CREDIT HOURS</strong></td>
<td><strong>75</strong></td>
</tr>
</tbody>
</table>

Hospitality Program Electives

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMGT 126</td>
<td>Food Management*</td>
<td>4</td>
</tr>
<tr>
<td>HMGT 130</td>
<td>Hospitality Law</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 132</td>
<td>Seminar in Housekeeping Operations</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 150</td>
<td>Seminar: Food Service Sales and Marketing</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 203</td>
<td>Hotel Sales and Marketing*</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 207</td>
<td>Hospitality Human Resource Management*</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 221</td>
<td>Design and Facilities Management*</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 240</td>
<td>Advanced Baking*</td>
<td>4</td>
</tr>
<tr>
<td>HMGT 248</td>
<td>Confectionery Arts</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 250</td>
<td>Introduction to Catering</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 256</td>
<td>Casino Management</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 265</td>
<td>Front Office Management</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 268</td>
<td>Hospitality Managerial Accounting*</td>
<td>3</td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required
Food and Beverage Management, A.A.S.

The hospitality management program at JCCC is a comprehensive study of the food service and public lodging industries. The program is accredited by the American Culinary Federation Educational Institute Accrediting Commission.

The JCCC food and beverage management program prepares graduates to enter restaurant, club or food service management as a trainee or assistant manager. Courses in the 66-credit-hour program include supervisory management, hospitality accounting, hospitality law, food management, design techniques and advanced hospitality management. In addition, students learn food preparation skills through courses in basic and intermediate food preparation, menu planning, purchasing, nutrition and beverage control. Individuals considering this field should enjoy a very active environment and a lot of contact with people.

Note: Metropolitan Community College students should seek specific counsel from the JCCC program personnel for the appropriate course plan and numbers.
Missouri students should refer to Cooperative Program Information.
(2550 19.0505)

Hospitality Management

Associate of Applied Science Degree

First Semester

HMGT 121 Perspectives of Hospitality Management..................3
SPD 120 Interpersonal Communication..............................3
or
SPD 121 Public Speaking........................................3
or
SPD 125 Personal Communication.................................3
MATH 120 Business Math or higher*...............................3
CPCA Computer Elective........................................1
ENGL 121 Composition I*......................................3
HMGT 120 Food Service Sanitation..........................1
TOTAL CREDIT HOURS..................................14

Second Semester

HMGT 128 Supervisory Management.................................3
HMGT 123 Professional Cooking I*.................................3
HMGT 277 Seminar in Hospitality Management: Menu Planning*...3
HMGT 271 Seminar in Hospitality Management: Purchasing........3
HMEC 151 Nutrition and Meal Planning..........................3
TOTAL CREDIT HOURS..................................15

Summer

PSYC 121 Applied Psychology....................................3
or
PSYC 130 Introduction to Psychology............................3
Humanities Requirement........................................3
TOTAL CREDIT HOURS..................................6

Third Semester

HMGT 230 Professional Cooking II*.................................3
HMGT 207 Hospitality Human Resource Management*............3
HMGT 279 Beverage Control.....................................3
HMGT 221 Design and Facilities Management*....................3
HMGT 273 Hospitality Cost Accounting*........................3
TOTAL CREDIT HOURS..................................15

Fourth Semester

HMGT 126 Food Management*....................................4
HMGT 228 Advanced Hospitality Management*..................3
Food and Beverage Management Certificate

The food and beverage management certificate program is a one-year program that students can complete in two semesters. Designed to give students basic skills hospitality industry employers are seeking for entry-level positions, the program includes an internship, which allows the student to gain actual experience with local employers.

(4840 19.0505)

Hospitality Management

Postsecondary Certificate

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 121</td>
<td>Composition I*</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 121</td>
<td>Perspectives of Hospitality Management</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 123</td>
<td>Professional Cooking I*</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 126</td>
<td>Food Management*</td>
<td>4</td>
</tr>
<tr>
<td>HMGT 128</td>
<td>Supervisory Management</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 230</td>
<td>Professional Cooking II*</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 271</td>
<td>Seminar in Hospitality Management: Purchasing</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 273</td>
<td>Hospitality Cost Accounting*</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 275</td>
<td>Seminar in Hospitality Management: Internship*</td>
<td>3</td>
</tr>
<tr>
<td>MATH 120</td>
<td>Business Mathematics*</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL PROGRAM CREDIT HOURS</td>
<td>31</td>
<td></td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required

Hospitality Entrepreneurship Certificate

The hospitality entrepreneurship certificate prepares students to realize their entrepreneurial dream of opening their own hospitality business. This certificate is designed to provide the student with basic skills in restaurant operation small business development and management. Upon successful completion, students should be better prepared to develop and sustain their own hospitality entrepreneurial business venture.

(4190 19.0505)

Hospitality Management

Vocational Certificate

Prerequisites for Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMGT 123</td>
<td>Professional Cooking I*</td>
<td>3</td>
</tr>
<tr>
<td>MATH 120</td>
<td>Business Math or higher*</td>
<td>3</td>
</tr>
<tr>
<td>BUS 230</td>
<td>Marketing</td>
<td>3</td>
</tr>
</tbody>
</table>
### Hotel & Lodging Management, A.A.S.

The hospitality management program at JCCC is a comprehensive study of the food service and public lodging industries. The program is accredited by the American Culinary Federation Educational Institute Accrediting Commission.

The JCCC hotel and lodging management program prepares the graduate to enter hotel and lodging management, usually as a trainee or department supervisor. Courses in supervisory management, hotel accounting, hotel sales and marketing, and advanced hospitality management provide a comprehensive management background. In addition the students learn basic skills through courses in housekeeping, front office management, basic and intermediate food preparation, and beverage control.

Individuals considering this field should enjoy a very active environment and a lot of contact with people.

Note: Metropolitan Community College students should seek specific counsel from the JCCC program personnel for the appropriate course plan and numbers. Missouri students should refer to Cooperative Program Information.

(2510 19.0505)

### Hospitality Management

#### Associate of Applied Science

### First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMGT 121</td>
<td>Perspectives of Hospitality Management</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 121</td>
<td>Composition I*</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 121</td>
<td>Applied Psychology</td>
<td>3</td>
</tr>
<tr>
<td>or PSYC 130</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 120</td>
<td>Food Service Sanitation</td>
<td>1</td>
</tr>
<tr>
<td>HPER 200</td>
<td>First Aid and CPR</td>
<td>2</td>
</tr>
<tr>
<td>HMGT 132</td>
<td>Seminar in Housekeeping Operations</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL CREDIT HOURS**: 15

### Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 120</td>
<td>Business Math or higher*</td>
<td>3</td>
</tr>
</tbody>
</table>

---

### Required Courses

- HMGT 121 Perspectives of Hospitality Management: 3
- HMGT 120 Food Service Sanitation: 1
- HMGT 128 Supervisory Management: 3
- HMGT 277 Seminar in Hospitality Management: Menu Planning*: 3
- ENTR 120 Introduction to Entrepreneurship: 2
- ENTR 180 Opportunity Analysis: 2
- ENTR 195 Franchising*: 3
- HMGT 230 Professional Cooking II*: 3
- HMGT 273 Hospitality Cost Accounting*: 3
- ENTR 160 Legal Issues for Small Business: 2
- ENTR 220 Entrepreneurial Marketing*: 2
- ENTR 142 Fast Trac Business Plan: 3

**TOTAL PROGRAM CREDIT HOURS**: 30

### Additional Suggested Coursework

- HMEC 151 Nutrition and Meal Planning: 3
- HMGT 279 Beverage Control: 3
- HMGT 271 Seminar in Hospitality Management: Purchasing: 3
- HMGT 130 Hospitality Law: 3
- HMGT 250 Introduction to Catering: 3
- HMGT 203 Hotel Sales and Marketing*: 3
- FL 133 Basic Spanish for Hospitality Management: 2

*Prerequisite/Corequisite required
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMGT 265</td>
<td>Front Office Management</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 128</td>
<td>Supervisory Management</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 235</td>
<td>Seminar: Risk Management and Loss Prevention</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 123</td>
<td>Professional Cooking I*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>TOTAL CREDIT HOURS</td>
<td>15</td>
</tr>
</tbody>
</table>

**Summer**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMGT 275</td>
<td>Seminar in Hospitality Management: Internship*</td>
<td>3</td>
</tr>
<tr>
<td>CFCA</td>
<td>Computer Elective</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>TOTAL CREDIT HOURS</td>
<td>4</td>
</tr>
</tbody>
</table>

**Third Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPD 120</td>
<td>Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>SPD 121</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>SPD 125</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 230</td>
<td>Professional Cooking II*</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 279</td>
<td>Beverage Control</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 203</td>
<td>Hotel Sales and Marketing*</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 273</td>
<td>Hospitality Cost Accounting*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>TOTAL CREDIT HOURS</td>
<td>15</td>
</tr>
</tbody>
</table>

**Fourth Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humanities Requirement...............................</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>HMGT 228</td>
<td>Advanced Hospitality Management*</td>
<td>3</td>
</tr>
<tr>
<td>HMGT</td>
<td>Hospitality Program Elective</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 268</td>
<td>Hospitality Managerial Accounting*</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 207</td>
<td>Hospitality Human Resource Management*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>TOTAL CREDIT HOURS</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>TOTAL PROGRAM CREDIT HOURS</td>
<td>64</td>
</tr>
</tbody>
</table>

**Hospitality Program Electives**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMEC 151</td>
<td>Nutrition and Meal Planning</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 126</td>
<td>Food Management*</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 130</td>
<td>Hospitality Law</td>
<td>4</td>
</tr>
<tr>
<td>HMGT 221</td>
<td>Design and Facilities Management*</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 223</td>
<td>Fundamentals of Baking</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 250</td>
<td>Introduction to Catering</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 256</td>
<td>Casino Management</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 271</td>
<td>Seminar in Hospitality Management: Purchasing</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 277</td>
<td>Seminar in Hospitality Management: Menu Planning*</td>
<td>3</td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required

### Pastry/Baking Certificate

The one-year pastry/baking certificate program is for students who are seeking employment as pastry cooks in pastry/bake shops, hotels, restaurants or other areas that produce pastry and baked products. Students may have an entrepreneurial interest for opening their own operation.

The program involves a total of 30 credits over two semesters with a maximum enrollment of 15 students. This is an open enrollment program beginning only during the fall semester. Current industry professionals may desire this program to upgrade their skills and increase their knowledge in this area of study.

Students must complete HMGT 120, Food Service Sanitation, and HMGT 123, Professional Cooking I, before enrolling in the program.

(4350 19.0505)

Hospitality Management

### Vocational Certificate
Prerequisites for Required Courses

HMGT 120  Food Service Sanitation..............................1
HMGT 123  Professional Cooking I*..............................3
TOTAL CREDIT HOURS...................................4

First Semester

HMPB 155  Pastry Shop Production I*............................4
HMPB 160  Pastry Shop Principles I*.............................4
HMPB 233  Patisserie*........................................4
HMPB 252  Pastry Shop Business Basics I*.......................3
TOTAL CREDIT HOURS..................................15

Second Semester

HMPB 255  Pastry Shop Production II*............................4
HMPB 260  Pastry Shop Principles II*............................4
HMPB 257  Sugar Basics*........................................4
HMPB 262  Pastry Shop Business Basics II*.......................3
TOTAL CREDIT HOURS..................................15
TOTAL PROGRAM CREDIT HOURS..........................30

*Prerequisite/Corequisite required

Pastry/Baking Entrepreneurship Certificate

This certificate is designed to prepare students to open their own pastry/baking business. This certificate is designed to provide the student with basic skills in pastry/baking preparation and small business development and management. Upon completion, the student should be better prepared to develop, grow and sustain their own pastry/baking business venture. All courses in this certificate are existing courses.

Students must complete HMGT 120, Food Service Sanitation, and HMGT 123, Professional Cooking I, before enrolling in the program.

Hospitality Management

Vocational Certificate

Prerequisites for Required Courses

HMGT 120  Food Service Sanitation..............................1
HMGT 123  Professional Cooking I*..............................3

Required Courses

HMPB 155  Pastry Shop Production I*............................4
HMPB 160  Pastry Shop Principles I*.............................4
HMPB 233  Patisserie*........................................4
HMPB 252  Pastry Shop Business Basics I*.......................3
ENTR 120  Introduction to Entrepreneurship......................2
ENTR 180  Opportunity Analysis................................2
HMPB 255  Pastry Shop Production II*............................4
HMPB 260  Pastry Shop Principles II*.............................4
HMPB 257  Sugar Basics*........................................4
HMPB 262  Pastry Shop Business Basics II*.......................3
ENTR 142  Fast Trac Business Plan...............................3
TOTAL PROGRAM CREDIT HOURS..........................37

Additional Suggested Coursework

ENTR 160  Legal Issues for Small Business......................2
ENTR 195  Franchising..........................................3
ENTR 220  Entrepreneurial Marketing............................2
ENTR 131  Financial Management for Small Business*.........2
Information Technology, A.A.S.

Information technology connects people, departments and companies for communication purposes. The technology of local area networks gives employees the ability to share and retrieve information at the group level. Combining local area networks with the Internet and telecommunications resources gives employees unlimited intranet access to information throughout the company and beyond. The associate of applied science degree in information technology provides students with a foundation in designing, installing and implementing computer networking resources. Course requirements include network operations and product-specific requirements for Netware, Windows, Unix and Cisco.

(2330 11.0901)

Information Technology

Associate of Applied Science Degree

First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT 205</td>
<td>Implementing Windows Client*</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 126</td>
<td>Microcomputer A+ Preparation</td>
<td>4</td>
</tr>
<tr>
<td>ENGL 121</td>
<td>Composition I*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Technical Electives</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Social Science and/or Economics Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Health and/or Physical Education Elective</td>
<td>1</td>
</tr>
</tbody>
</table>

TOTAL CREDIT HOURS: 17

Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT 221</td>
<td>Windows Server*</td>
<td>3</td>
</tr>
<tr>
<td>IT 230</td>
<td>UNIX Fundamentals*</td>
<td>3</td>
</tr>
<tr>
<td>IT 246</td>
<td>Introduction to Routers*</td>
<td>3</td>
</tr>
<tr>
<td>MATH 171</td>
<td>College Algebra or higher*</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 122</td>
<td>Composition II*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Technical Electives</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>or</td>
<td></td>
</tr>
<tr>
<td>ENGL 123</td>
<td>Technical Writing I*</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL CREDIT HOURS: 15

Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT 225</td>
<td>Windows Active Directory Services*</td>
<td>3</td>
</tr>
<tr>
<td>IT 231</td>
<td>UNIX Administration*</td>
<td>3</td>
</tr>
<tr>
<td>IT 247</td>
<td>Introduction to Wide-Area Networks*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Humanities Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Technical Electives</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL CREDIT HOURS: 15

Fourth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT 245</td>
<td>Network Infrastructure*</td>
<td>3</td>
</tr>
<tr>
<td>IT 251</td>
<td>Network Security Fundamentals*</td>
<td>4</td>
</tr>
<tr>
<td>SPD 121</td>
<td>Public Speaking*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>or</td>
<td></td>
</tr>
<tr>
<td>SPD 125</td>
<td>Personal Communication*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Technical Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>or</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Technical Elective</td>
<td>7</td>
</tr>
</tbody>
</table>

TOTAL CREDIT HOURS: 17

TOTAL PROGRAM CREDIT HOURS: 64

Technical Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPCA 121</td>
<td>Introduction to Project Management*</td>
<td>1</td>
</tr>
<tr>
<td>CIS 134</td>
<td>Programming Fundamentals*</td>
<td>4</td>
</tr>
<tr>
<td>ELEC 120</td>
<td>Introduction to Electronics</td>
<td>3</td>
</tr>
</tbody>
</table>
Network Administration: UNIX Certificate

This certificate is a 26-credit-hour program that students can complete in four semesters. The certificate will provide students with competencies necessary to install, troubleshoot and administer Unix systems in an enterprise environment. These skills are sought in the industry today, with Unix operating systems claiming the majority of new implementations in the enterprise environment.

Vocational Certificate

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT 200</td>
<td>Networking Technologies</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 126</td>
<td>Microcomputer A+ Preparation</td>
<td>4</td>
</tr>
<tr>
<td>IT 231</td>
<td>UNIX Administration*</td>
<td>3</td>
</tr>
<tr>
<td>IT 232</td>
<td>UNIX Networking and Security*</td>
<td>4</td>
</tr>
<tr>
<td>IT 246</td>
<td>Introduction to Routers*</td>
<td>3</td>
</tr>
<tr>
<td>IT 205</td>
<td>Implementing Windows Client*</td>
<td>3</td>
</tr>
<tr>
<td>IT 210</td>
<td>Netware Administration*</td>
<td></td>
</tr>
<tr>
<td>IT 221</td>
<td>Windows Server*</td>
<td>3</td>
</tr>
<tr>
<td>IT 225</td>
<td>Windows Active Directory Services*</td>
<td>3</td>
</tr>
<tr>
<td>IT 227</td>
<td>SQL Server Administration*</td>
<td>3</td>
</tr>
<tr>
<td>IT 245</td>
<td>Network Infrastructure*</td>
<td>3</td>
</tr>
<tr>
<td>IT 247</td>
<td>Introduction to Wide-Area Networks*</td>
<td>3</td>
</tr>
<tr>
<td>IT 250</td>
<td>Networking Seminar*</td>
<td>3</td>
</tr>
<tr>
<td>IT 255</td>
<td>Wireless Security*</td>
<td>4</td>
</tr>
<tr>
<td>IT 271</td>
<td>Information Technology Internship I*</td>
<td>3</td>
</tr>
<tr>
<td>IT 272</td>
<td>Information Technology Internship II*</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 185</td>
<td>LAN Cabling and Installation</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL CREDIT HOURS: 26

Technical Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT 211</td>
<td>Advanced Switching*</td>
<td>3</td>
</tr>
<tr>
<td>IT 254</td>
<td>Remote Access Networks*</td>
<td>3</td>
</tr>
<tr>
<td>IT 256</td>
<td>Advanced Routing*</td>
<td>3</td>
</tr>
<tr>
<td>IT 273</td>
<td>Exchange Server*</td>
<td>3</td>
</tr>
<tr>
<td>IT 274</td>
<td>UNIX Administration*</td>
<td>3</td>
</tr>
<tr>
<td>IT 275</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 276</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 277</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 278</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 279</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 280</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 281</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 282</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 283</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 284</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 285</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 286</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 287</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 288</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 289</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 290</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 291</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 292</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 293</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 294</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 295</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 296</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 297</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 298</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 299</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 300</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 301</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 302</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 303</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 304</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 305</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 306</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 307</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 308</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 309</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 310</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 311</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 312</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 313</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 314</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 315</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 316</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 317</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 318</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 319</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 320</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 321</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 322</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 323</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 324</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 325</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 326</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 327</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 328</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 329</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 330</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 331</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 332</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 333</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 334</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 335</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 336</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 337</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 338</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 339</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 340</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 341</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 342</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 343</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 344</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 345</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 346</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 347</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 348</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 349</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 350</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 351</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 352</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 353</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 354</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 355</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 356</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 357</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 358</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 359</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 360</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 361</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 362</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 363</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 364</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 365</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 366</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 367</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 368</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 369</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 370</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 371</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 372</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 373</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 374</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 375</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 376</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 377</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 378</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 379</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 380</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 381</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 382</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 383</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 384</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 385</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 386</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 387</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 388</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 389</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 390</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 391</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 392</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 393</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 394</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 395</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 396</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 397</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 398</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 399</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
<tr>
<td>IT 400</td>
<td>UNIX Networking and Security*</td>
<td></td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required

Network Administration: Windows Certificate

The networking administration: windows vocational certificate is a 28-credit-hour program that students can complete in four semesters. The program is designed to give students the hands-on skills needed to install, troubleshoot and administer a local area network with Windows operating system. Course work parallels the requirements for the Microsoft Certified Systems Associate (MCSA) certification exams.
Information Technology

Vocational Certificate

Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT 200</td>
<td>Networking Technologies</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 126</td>
<td>Microcomputer A+ Preparation</td>
<td>4</td>
</tr>
<tr>
<td>IT 205</td>
<td>Implementing Windows Client*</td>
<td>3</td>
</tr>
<tr>
<td>IT 221</td>
<td>Windows Server*</td>
<td>3</td>
</tr>
<tr>
<td>IT 225</td>
<td>Windows Active Directory Services*</td>
<td>3</td>
</tr>
<tr>
<td>IT 245</td>
<td>Network Infrastructure*</td>
<td>3</td>
</tr>
<tr>
<td>Technical Electives</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>TOTAL PROGRAM CREDIT HOURS</td>
<td></td>
<td>28</td>
</tr>
</tbody>
</table>

Technical Electives

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT 210</td>
<td>Netware Administration*</td>
<td>3</td>
</tr>
<tr>
<td>IT 227</td>
<td>SQL Server Administration*</td>
<td>3</td>
</tr>
<tr>
<td>IT 228</td>
<td>Exchange Server*</td>
<td>3</td>
</tr>
<tr>
<td>IT 230</td>
<td>UNIX Fundamentals*</td>
<td>3</td>
</tr>
<tr>
<td>IT 231</td>
<td>UNIX Administration*</td>
<td>3</td>
</tr>
<tr>
<td>IT 232</td>
<td>UNIX Networking and Security*</td>
<td>4</td>
</tr>
<tr>
<td>IT 246</td>
<td>Introduction to Routers*</td>
<td>3</td>
</tr>
<tr>
<td>IT 247</td>
<td>Introduction to Wide-Area Networks*</td>
<td>3</td>
</tr>
<tr>
<td>IT 249</td>
<td>Advanced Routing*</td>
<td>3</td>
</tr>
<tr>
<td>IT 250</td>
<td>Networking Seminar*</td>
<td>3</td>
</tr>
<tr>
<td>IT 251</td>
<td>Network Security Fundamentals*</td>
<td>4</td>
</tr>
<tr>
<td>IT 255</td>
<td>Wireless Security*</td>
<td>4</td>
</tr>
<tr>
<td>IT 271</td>
<td>Information Technology Internship I*</td>
<td>3</td>
</tr>
<tr>
<td>IT 272</td>
<td>Information Technology Internship II*</td>
<td>3</td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required

Network Connectivity Certificate

The network connectivity vocational certificate is a 13-credit-hour program that students can complete in three semesters. The certificate addresses the crucial area of Internet connection devices and provides necessary skills for students to be successful in the field. This certificate is supported and promoted by Cisco through its Networking Academy initiative. Course work parallels the requirements for Cisco Certified Network Associate (CCNA) certification exam.

Interactive Media, A.A.S.

The interactive media program provides instruction in the design and development process for different types of interactive media, acquiring and managing assets, the history and theory of communication forms, authoring for interactive media, interface design, and project management. This program is designed to build a common foundation of experience while allowing the student to elect asset and
authoring courses as well as general electives that best serve his or her individual needs. Depending on individual choices and talents, students who complete the interactive media program should be prepared for employment in a variety of positions in the interactive media field. For more information and to see samples of student work, go to web.jccc.net/academic/cim
(2410 11.1004)

Interactive Media

Associate of Applied Science Degree

Prerequisites for Required Courses

Note: Prior to beginning the program, the student must take the following prerequisites, or have taken the equivalent transfer courses, or have passed the waiver test (where applicable), or have obtained a waiver from the program administrator.

CDTP 135 Desktop Photo Manipulation I: Photoshop*.............1
CDTP 145 Desktop Illustration I: Illustrator*.................1
CWEB 105 Introduction to Web Pages: Dreamweaver*..............1
CWEB 130 Introduction to Flash*.................................1

First Semester

ENGL 121 Composition I*.......................................3
CIM 130 Interactive Media Concepts...........................2
CIM 140 Interactive Media Assets*............................4
CIM 133 Screen Design*.......................................4
Electives.....................................................................3
TOTAL CREDIT HOURS............................................16

Second Semester

ENGL 140 Writing for Interactive Media*.......................3
CIM 154 Interactive Authoring I: Director*....................4
or
CIM 156 Interactive Authoring I: Web*.........................4
CIM 200 Interactive Communication Form*........................3
Humanities Elective......................................................3
Interactive Media Elective..........................................3
TOTAL CREDIT HOURS............................................16

Third Semester

CIM 230 Interactive Media Development*.......................4
CIM 250 Interface Design*.........................................4
Social Science and/or Economic Elective......................3
Interactive Media Elective..........................................3
Electives.....................................................................3
TOTAL CREDIT HOURS............................................17

Fourth Semester

CIM 270 Interactive Media Project*..............................4
CIM 273 Career Preparation*.................................4
Science and/or Mathematics......................................3
Health and/or Physical Education.............................1
Electives.....................................................................3
TOTAL CREDIT HOURS............................................15
TOTAL PROGRAM CREDIT HOURS.................................64

Interactive Media Elective List

CIM 135 Digital Imaging and Video*..............................3
Multimedia Design Certificate

The multimedia design certificate provides instruction in the design and development process needed to deliver information and media, primarily via CD-ROM and DVD. This includes acquiring and managing assets (text, graphics, sound and video), the history and theory of communication forms, screen design, multimedia authoring, interface design and project management.

Students who complete the multimedia design certificate should be prepared for employment in a variety of positions within the interactive media field. Potential positions in multimedia design include writer/editor/researcher, graphics professional, photography/imaging/video professional, music/audio professional, animator, programmer, information designer, interface designer and/or project manager. For more information and to see samples of student work, go to web.jccc.net/academic/cim

(4480 11.1004)

Interactive Media

Vocational Certificate

Prerequisites for Required Courses

Note: Prior to beginning the program, the student must take the following prerequisites, or have taken the equivalent transfer courses, or have passed the waiver test (where applicable), or have obtained a waiver from the program administrator.

CIM 130 Interactive Media Concepts.........................2
CIM 140 Interactive Media Assets*............................4
CIM 133 Screen Design*...................................4
CIM 154 Interactive Authoring I: Director*...............4
CIM 200 Interactive Communication Form*..................3
CIM 230 Interactive Media Development*..................4
CIM 250 Interface Design*..................................4
CIM 270 Interactive Media Project*..........................4
TOTAL PROGRAM CREDIT HOURS..........................29

*Prerequisite/Corequisite required
Multimedia Design Entrepreneurship Certificate

This 30 credit-hour certificate is designed to prepare students to realize their entrepreneurial dream of opening their own business providing multimedia design services. This certificate is designed to provide the student with instruction in the design and development process needed to deliver information and media primarily via CD-ROM and DVD. This includes acquiring and managing assets (i.e., text, graphics, sound and video), the history and theory of communication forms, screen design, multimedia authoring, interface design, and project management. Additionally, the certificate provides the student instruction in small business development and management. Upon successful completion, the student should be prepared to develop, grow and sustain their own multimedia design entrepreneurial business venture.

(4070 11.1004)

Interactive Media

Vocational Certificate

Prerequisites for Required Courses

Note: Prior to beginning the program, the student must take the following prerequisites, or have taken the equivalent transfer courses, or have passed the waiver test (where applicable), or have obtained a waiver from the program administrator.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDTP 135</td>
<td>Desktop Photo Manipulation I: Photoshop*</td>
<td>1</td>
</tr>
<tr>
<td>CDTP 145</td>
<td>Desktop Illustration I: Illustrator*</td>
<td>1</td>
</tr>
<tr>
<td>CWEB 101</td>
<td>Introduction to the Web using Internet Explorer</td>
<td>1</td>
</tr>
<tr>
<td>CWEB 105</td>
<td>Introduction to Web Pages: Dreamweaver*</td>
<td>1</td>
</tr>
<tr>
<td>CWEB 130</td>
<td>Introduction to Flash*</td>
<td>1</td>
</tr>
<tr>
<td>CIM 130</td>
<td>Interactive Media Concepts</td>
<td>2</td>
</tr>
<tr>
<td>CIM 140</td>
<td>Interactive Media Assets*</td>
<td>4</td>
</tr>
</tbody>
</table>

Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIM 133</td>
<td>Screen Design*</td>
<td>4</td>
</tr>
<tr>
<td>CIM 154</td>
<td>Interactive Authoring I: Director*</td>
<td>4</td>
</tr>
<tr>
<td>ENTR 120</td>
<td>Introduction to Entrepreneurship</td>
<td>2</td>
</tr>
<tr>
<td>ENTR 180</td>
<td>Opportunity Analysis</td>
<td>2</td>
</tr>
<tr>
<td>CIM 200</td>
<td>Interactive Communication Form*</td>
<td>3</td>
</tr>
<tr>
<td>CIM 230</td>
<td>Interactive Media Development*</td>
<td>4</td>
</tr>
<tr>
<td>CIM 250</td>
<td>Interface Design*</td>
<td>4</td>
</tr>
<tr>
<td>CIM 270</td>
<td>Interactive Media Project*</td>
<td>4</td>
</tr>
<tr>
<td>ENTR 142</td>
<td>Fast Trac Business Plan*</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL PROGRAM CREDIT HOURS</td>
<td>30</td>
<td></td>
</tr>
</tbody>
</table>

Additional Suggested Coursework

Students may choose relevant courses based on skills needed to develop, grow, and sustain their entrepreneurial business concept.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENTR 220</td>
<td>Entrepreneurial Marketing*</td>
<td>2</td>
</tr>
<tr>
<td>ENTR 131</td>
<td>Financial Management for Small Business*</td>
<td>2</td>
</tr>
<tr>
<td>ENTR 195</td>
<td>Franchising</td>
<td>3</td>
</tr>
<tr>
<td>CIM 135</td>
<td>Digital Imaging and Video*</td>
<td>3</td>
</tr>
<tr>
<td>CIM 156</td>
<td>Interactive Authoring I: Web*</td>
<td>4</td>
</tr>
<tr>
<td>CIM 235</td>
<td>Advanced Digital Video*</td>
<td>3</td>
</tr>
<tr>
<td>CIM 254</td>
<td>Interactive Authoring II: Director*</td>
<td>4</td>
</tr>
<tr>
<td>CIS 162</td>
<td>Database Programming</td>
<td>4</td>
</tr>
<tr>
<td>MUS 156</td>
<td>MIDI Music Composition</td>
<td>3</td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required
Web Design Certificate

The Web design certificate provides instruction in the design and development process needed to deliver information and media primarily via the World Wide Web. This instruction includes acquiring and managing assets (text, graphics, sound and video), the history and theory of communication forms, screen design, multimedia authoring, interface design and project management.

Students who complete the Web design certificate should be prepared for employment in a variety of positions within the interactive media field. Potential positions in Web design include writer/editor/researcher, graphics professional, photography/imaging/video professional, music/audio professional, animator, programmer, information designer, interface designer and/or project manager. For more information and to see samples of student work, go to web.jccc.net/academic/cim

(4490 11.1004)

Interactive Media

Vocational Certificate

Prerequisites for Required Courses

Note: Prior to beginning the program, the student must take the following prerequisites, or have taken the equivalent transfer courses, or have passed the waiver test (where applicable), or have obtained a waiver from the program administrator.

CDTP 135 Desktop Photo Manipulation I: Photoshop*......................1
CDTP 145 Desktop Illustration I: Illustrator*...............................1
CWEB 105 Introduction to Web Pages: Dreamweaver*......................1
CWEB 130 Introduction to Flash*........................................1

Required Courses

CIM 130 Interactive Media Concepts........................................2
CIM 140 Interactive Media Assets*.........................................4
CIM 133 Screen Design*.....................................................4
CIM 156 Interactive Authoring I: Web*..................................4
CIM 200 Interactive Communication Form*...............................4
CIM 230 Interactive Media Development*.................................4
CIM 250 Interface Design*................................................4
CIM 270 Interactive Media Project*.......................................4

TOTAL PROGRAM CREDIT HOURS........................................29

*Prerequisite/Corequisite required

Web Design Entrepreneurship Certificate

This certificate is designed to prepare students to realize their entrepreneurial dream of opening their own business providing Web design services. This certificate is designed to provide the student with instruction in the design and development process needed to deliver information and media primarily via the World Wide Web. This includes acquiring and managing assets (i.e., text, graphics, sound and video), the history and theory of communication forms, screen design, multimedia authoring, interface design, and project management. Additionally, the certificate provides the student instruction in small business development and management. Upon successful completion, the student should be prepared to develop, grow and sustain their own Web design entrepreneurial business venture.

(4200 11.1004)

Interactive Media

Vocational Certificate
**Prerequisites for Required Courses**

Note: Prior to beginning the program, the student must take the following prerequisites, or have taken the equivalent transfer courses, or have passed the waiver test (where applicable), or have obtained a waiver from the program administrator.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDTP 135</td>
<td>Desktop Photo Manipulation I: Photoshop*</td>
<td>1</td>
</tr>
<tr>
<td>CDTP 145</td>
<td>Desktop Illustration I: Illustrator*</td>
<td>1</td>
</tr>
<tr>
<td>CWEB 101</td>
<td>Introduction to the Web using Internet Explorer</td>
<td>1</td>
</tr>
<tr>
<td>CWEB 105</td>
<td>Introduction to Web Pages: Dreamweaver*</td>
<td>1</td>
</tr>
<tr>
<td>CWEB 130</td>
<td>Introduction to Flash*</td>
<td>1</td>
</tr>
<tr>
<td>CIM 130</td>
<td>Interactive Media Concepts</td>
<td>2</td>
</tr>
<tr>
<td>CIM 140</td>
<td>Interactive Media Assets*</td>
<td>4</td>
</tr>
</tbody>
</table>

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIM 133</td>
<td>Screen Design*</td>
<td>4</td>
</tr>
<tr>
<td>CIM 156</td>
<td>Interactive Authoring I: Web*</td>
<td>4</td>
</tr>
<tr>
<td>ENTR 120</td>
<td>Introduction to Entrepreneurship</td>
<td>2</td>
</tr>
<tr>
<td>ENTR 180</td>
<td>Opportunity Analysis</td>
<td>2</td>
</tr>
<tr>
<td>CIM 200</td>
<td>Interactive Communication Form*</td>
<td>3</td>
</tr>
<tr>
<td>CIM 230</td>
<td>Interactive Media Development*</td>
<td>4</td>
</tr>
<tr>
<td>CIM 250</td>
<td>Interface Design*</td>
<td>4</td>
</tr>
<tr>
<td>CIM 270</td>
<td>Interactive Media Project*</td>
<td>4</td>
</tr>
<tr>
<td>ENTR 142</td>
<td>Fast Trac Business Plan</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL PROGRAM CREDIT HOURS</strong></td>
<td>30</td>
</tr>
</tbody>
</table>

**Additional Suggested Coursework**

Students may choose relevant courses based on skills needed to develop, grow, and sustain their entrepreneurial business concept.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENTR 220</td>
<td>Entrepreneurial Marketing*</td>
<td>2</td>
</tr>
<tr>
<td>ENTR 131</td>
<td>Financial Management for Small Business*</td>
<td>2</td>
</tr>
<tr>
<td>ENTR 160</td>
<td>Legal Issues for Small Business</td>
<td>2</td>
</tr>
<tr>
<td>ENTR 195</td>
<td>Franchising</td>
<td>3</td>
</tr>
<tr>
<td>CIM 135</td>
<td>Digital Imaging and Video*</td>
<td>3</td>
</tr>
<tr>
<td>CIM 154</td>
<td>Interactive Authoring I: Director*</td>
<td>4</td>
</tr>
<tr>
<td>CIM 235</td>
<td>Advanced Digital Video*</td>
<td>3</td>
</tr>
<tr>
<td>CIM 254</td>
<td>Interactive Authoring II: Director*</td>
<td>4</td>
</tr>
<tr>
<td>CIS 162</td>
<td>Database Programming*</td>
<td>4</td>
</tr>
<tr>
<td>MUS 156</td>
<td>MIDI Music Composition*</td>
<td>3</td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required

**Interior Design, A.A.S.**

Seven options in JCCC's interior design program offer students opportunities to choose a career path from a wide variety of exciting fields. Three associate of applied science degree options -- interior design, interior merchandising and interior entrepreneurship -- offer design, retail and business proprietorship skills. Three certificate programs, the interior products sales certificate, interior design and merchandising entrepreneurship certificate and the interior design sales and marketing representative certificate, are available for students who need skills for immediate employment or who want a broader knowledge base for their current employment. The interior design advanced certificate offers classes needed to sit for the NCIDQ exam.

JCCC's program offers courses in interior materials and resources, professional selling, business management, manual and CAD drafting, and product presentation, combined with a basic curriculum of business math, English and art history. Two required internships help develop technical, creative and business skills.

Faculty have worked in the field, which equips them to offer valuable firsthand knowledge of what it takes to succeed.
Note: Metropolitan Community College students should seek specific counsel from the JCCC program personnel for the appropriate course plan and numbers. Missouri students should refer to Cooperative Program Information.

Interior Design

## Associate of Applied Science Degree

### First Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITMD 121</td>
<td>Interior Design</td>
<td>3</td>
</tr>
<tr>
<td>DRAF 164</td>
<td>Architectural Drafting/Residential Interior Design</td>
<td>3</td>
</tr>
<tr>
<td>ITMD 133</td>
<td>Furniture &amp; Ornamentation/Antiquity to Renaissance</td>
<td>3</td>
</tr>
<tr>
<td>MATH 120</td>
<td>Business Math or higher*</td>
<td>3</td>
</tr>
<tr>
<td>ITMD 125</td>
<td>Interior Textiles</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 121</td>
<td>Composition I*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td><strong>18</strong></td>
</tr>
</tbody>
</table>

### Second Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITMD 123</td>
<td>Space Planning*</td>
<td>3</td>
</tr>
<tr>
<td>ITMD 129</td>
<td>Design Presentation*</td>
<td>3</td>
</tr>
<tr>
<td>ITMD 132</td>
<td>Materials and Resources</td>
<td>3</td>
</tr>
<tr>
<td>MKT 134</td>
<td>Professional Selling</td>
<td>3</td>
</tr>
<tr>
<td>ITMD 231</td>
<td>Furniture &amp; Ornamentation Renaissance to 20th Cent</td>
<td>3</td>
</tr>
<tr>
<td>BUS 150</td>
<td>Business Communications*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td><strong>18</strong></td>
</tr>
</tbody>
</table>

### Third Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRAF 264</td>
<td>CAD: Interior Design*</td>
<td>3</td>
</tr>
<tr>
<td>ITMD 271</td>
<td>Budgeting and Estimating*</td>
<td>3</td>
</tr>
<tr>
<td>ITMD 282</td>
<td>Interiors Internship I*</td>
<td>1</td>
</tr>
<tr>
<td>ART 180</td>
<td>See ARTH 180 for Art History: Ancient to Renaiss</td>
<td>3</td>
</tr>
<tr>
<td>ECON 132</td>
<td>Survey of Economics</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECON 230</td>
<td>Economics I</td>
<td>3</td>
</tr>
<tr>
<td>ITMD 213</td>
<td>Lighting Design and Planning*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

### Fourth Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITMD 221</td>
<td>Residential Design*</td>
<td>3</td>
</tr>
<tr>
<td>ITMD 273</td>
<td>Interiors Seminar: Practices and Procedures*</td>
<td>2</td>
</tr>
<tr>
<td>ITMD 284</td>
<td>Interiors Internship II*</td>
<td>1</td>
</tr>
<tr>
<td>ITMD 140</td>
<td>Window Treatments*</td>
<td>1</td>
</tr>
<tr>
<td>ITMD 145</td>
<td>Upholstered Furniture*</td>
<td>1</td>
</tr>
<tr>
<td>ITMD 149</td>
<td>Casegoods*</td>
<td>1</td>
</tr>
<tr>
<td>ITMD 148</td>
<td>History of Asian Furniture and Design</td>
<td>2</td>
</tr>
<tr>
<td>ITMD 150</td>
<td>Asian Rugs and Carpets</td>
<td>1</td>
</tr>
<tr>
<td>ITMD 180</td>
<td>Leadership in Design</td>
<td>1</td>
</tr>
<tr>
<td>ITMD 239</td>
<td>Capstone: Interior Design*</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Health and/or Physical Education Elective</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td><strong>16</strong></td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL PROGRAM CREDIT HOURS</strong></td>
<td><strong>68</strong></td>
</tr>
</tbody>
</table>

### Additional Suggested ITMD Electives

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITMD 127</td>
<td>Elements of Floral Design</td>
<td>1</td>
</tr>
<tr>
<td>ITMD 143</td>
<td>Accessory Fundamentals*</td>
<td>1</td>
</tr>
<tr>
<td>ITMD 175</td>
<td>Advanced Floral Design*</td>
<td>1</td>
</tr>
<tr>
<td>ITMD 189</td>
<td>Sustaining Design</td>
<td>1</td>
</tr>
<tr>
<td>ITMD 250</td>
<td>20th Century Designers</td>
<td>1</td>
</tr>
<tr>
<td>ITMD 295</td>
<td>Field Study: Design and Merchandising</td>
<td>3</td>
</tr>
<tr>
<td>ITMD 296</td>
<td>Interior Design: the Orient</td>
<td>3</td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required
Interior Design Advanced Certificate

This certificate is designed for students who wish to be certified or registered interior designers. Students must have completed the Interior Design AAS degree. Faculty have worked in the field, which equips them to offer valuable first hand knowledge of what it takes to succeed.

Note: Metropolitan Community College students should seek specific counsel from the JCCC program personnel for the appropriate course plan and numbers. Missouri students should refer to Cooperative Program Information.

(4100 50.0408)

Interior Design

Vocational Certificate

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITMD 225</td>
<td>Interior Textiles II*</td>
<td>3</td>
</tr>
<tr>
<td>DRAF 230</td>
<td>Intermediate CAD: AutoCAD*</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ART 129</td>
<td>Design Color</td>
<td>3</td>
</tr>
<tr>
<td>ITMD 223</td>
<td>Commercial Design*</td>
<td>3</td>
</tr>
<tr>
<td>ART Electives</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>ITMD 219</td>
<td>Issues in Interior Design*</td>
<td>3</td>
</tr>
<tr>
<td>ITMD 234</td>
<td>Kitchen and Bath: Planning and Design*</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL PROGRAM CREDIT HOURS</td>
<td></td>
<td>21</td>
</tr>
</tbody>
</table>

Art electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 182</td>
<td>Art History: Renaissance to Modern</td>
<td>3</td>
</tr>
<tr>
<td>ART 124</td>
<td>Design 2D</td>
<td>3</td>
</tr>
<tr>
<td>ART 127</td>
<td>Design 3D*</td>
<td>3</td>
</tr>
</tbody>
</table>

Interior Design electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITMD 127</td>
<td>Elements of Floral Design</td>
<td>1</td>
</tr>
<tr>
<td>ITMD 143</td>
<td>Accessory Fundamentals*</td>
<td>1</td>
</tr>
<tr>
<td>ITMD 175</td>
<td>Advanced Floral Design</td>
<td>1</td>
</tr>
<tr>
<td>ITMD 250</td>
<td>20th Century Designers</td>
<td>1</td>
</tr>
<tr>
<td>ITMD 295</td>
<td>Field Study: Design and Merchandising*</td>
<td>3</td>
</tr>
<tr>
<td>ITMD 296</td>
<td>Interior Design: the Orient</td>
<td>3</td>
</tr>
<tr>
<td>*Prerequisite/Corequisite required</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interior Design Retail Sales/Manufacturing Rep Certificate

The interior design retail sales/manufacturers representative certificate is a program designed for students employed in or seeking positions in the retail or wholesale interior design market.

Faculty have worked in the field, which equips them to offer valuable first hand knowledge of what it takes to succeed.

Note: Metropolitan Community College students should seek specific counsel from the JCCC program personnel for the appropriate course plan and numbers. Missouri students should refer to Cooperative Program Information.

(6510 50.0408)

Interior Design

Vocational Certificate

First Semester
The interior design and merchandising entrepreneurship certificate prepares students to realize their entrepreneurial dream of opening their own interior design or merchandising service or retail business. This certificate is designed to provide the student with basic skills in interior merchandising and design and the basic skills in small business development and management. Upon successful completion, students should be prepared to develop and sustain their own interior merchandising or design business venture.

Faculty have worked in the field, which equips them to offer valuable first hand knowledge of what it takes to succeed.

Note: Metropolitan Community College students should seek specific counsel from the JCCC program personnel for the appropriate course plan and numbers. Missouri students should refer to Cooperative Program Information.

(4210 50.0408)

Interior Design

Vocational Certificate

Prerequisites for Required Courses

MATH 120  Business Mathematics*.................................3
DRAF 164  Architectural Drafting/Residential Interior Design...3

Required Courses

ITMD 121  Interior Design......................................3
ITMD 125  Interior Textiles....................................3
ITMD 132  Materials and Resources..............................3
ITMD 134  Professional Selling................................3
FASH 135  Image Management.....................................1
ITMD 282  Interiors Internship I*..............................1
TOTAL CREDIT HOURS..................................17

Second Semester

MKT 121  Retail Management....................................3
FASH 125  Visual Merchandising................................3
ITMD 271  Budgeting and Estimating*............................3
ITMD 284  Interiors Internship II*.............................1
ITMD  Elective.............................................3
TOTAL CREDIT HOURS..................................13
TOTAL PROGRAM CREDIT HOURS..........................30

Recommended Electives

ITMD 127  Elements of Floral Design............................1
ITMD 140  Window Treatments*..................................1
ITMD 143  Accessory Fundamentals*.............................1
ITMD 145  Upholstered Furniture*...............................1
ITMD 147  Lighting Basics*....................................1
ITMD 149  Casegoods*........................................1
ITMD 213  Lighting Design and Planning*.......................1
ITMD 225  Interior Textiles II....................................3
ITMD 231  Furniture & Ornamentation Renaissance to 20th Cent...3
ITMD 273  Interiors Seminar: Practices and Procedures*........2
*Prerequisite/Corequisite required

*Prerequisite/Corequisite required
Choose 3 of the 5 one-credit hour courses

ITMD 127  Elements of Floral Design......................................................1
ITMD 175  Advanced Floral Design*.......................................................1
ITMD 140  Window Treatments*..............................................................1
ITMD 145  Upholstered Furniture*............................................................1
ITMD 147  Lighting Basics*.................................................................1
TOTAL PROGRAM CREDIT HOURS.........................................................30

Additional Suggested Coursework

ENTR 195  Franchising*.................................................................3
ENTR 220  Entrepreneurial Marketing*..................................................2
ENTR 131  Financial Management for Small Business*.......................2
*Prerequisite/Corequisite required

Interior Entrepreneurship, A.A.S.

Seven options in JCCC's interior design program offer students opportunities to choose a career path from a wide variety of exciting fields. Three associate of applied science degree options -- interior design, interior merchandising and interior entrepreneurship--offer design, retail and business proprietorship skills. Three certificate programs, the interior products sales certificate, interior design and merchandising entrepreneurship certificate and the interior design sales and marketing representative certificate, are available for students who need skills for immediate employment or who want a broader knowledge base for their current employment. The interior design advanced certificate offers classes needed to sit for the NCIDQ exam.

JCCC's program offers courses in interior materials and resources, professional selling, business management, manual and CAD drafting, and product presentation, combined with a basic curriculum of business math, English and art history. Two required work-study internships help develop technical, creative and business skills.

Faculty have worked in the field, which equips them to offer valuable firsthand knowledge of what it takes to succeed.

Note: Metropolitan Community College students should seek specific counsel from the JCCC program personnel for the appropriate course plan and numbers. Missouri students should refer to Cooperative Program Information.

(2770 50.0408)

Interior Design

Associate of Applied Science Degree

First Semester

ITMD 121  Interior Design.................................................................3
ITMD 133  Furniture & Ornamentation/Antiquity to Renaissance........3
DRAF 164  Architectural Drafting/Residential Interior Design........3
MATH 120  Business Math or higher*..................................................3
ITMD 125  Interior Textiles.................................................................3
ENGL 121  Composition I*.................................................................3
TOTAL CREDIT HOURS..................................................18

Second Semester

ITMD 123  Space Planning*.................................................................3
Interiors Elective...................................3
ITMD 132 Materials and Resources.............................3
MKT 134 Professional Selling..................................3
ITMD 231 Furniture & Ornamental Renaissance to 20th Cent...3
BUS 150 Business Communications*.............................3
TOTAL CREDIT HOURS.........................................18

Third Semester

Interiors Elective...................................3
ITMD 271 Budgeting and Estimating*.............................3
ITMD 282 Interiors Internship I*.................................1
ART 180 See ARTH 180 for Art History: Ancient to Renaissan...3
ECON 132 Survey of Economics..................................3
or
ECON 230 Economics I........................................3
Business/Marketing/Entrepreneurship
Electives..................................................3
TOTAL CREDIT HOURS.........................................16

Fourth Semester

ITMD 273 Interiors Seminar: Practices and Procedures*........2
ITMD 284 Interiors Internship II*.................................1
Business/Marketing/Entrepreneurship
Electives..................................................6
ITMD 237 Capstone: Merchandising and Entrepreneurship*........2
ITMD 180 Leadership in Design.................................1
Physical Education Elective.................................1
Interiors Elective........................................3
TOTAL CREDIT HOURS.........................................16
TOTAL PROGRAM CREDIT HOURS..........................68

Interiors Electives

ITMD 127 Elements of Floral Design...............................1
ITMD 140 Window Treatments*....................................1
ITMD 143 Accessory Fundamentals*...............................1
ITMD 145 Upholstered Furniture*...............................1
ITMD 147 Lighting Basics*.....................................1
ITMD 148 History of Asian Furniture and Design................2
ITMD 149 Casegoods*...........................................1
ITMD 150 Asian Rugs and Carpets...............................1
ITMD 175 Advanced Floral Design*...............................1
ITMD 213 Lighting Design and Planning*.........................3
ITMD 225 Interior Textiles II*.................................3
ITMD 250 20th Century Designers...............................1
ITMD 295 Field Study: Design and Merchandising*.............3
ITMD 296 Interior Design: the Orient............................3

Business/Marketing/Entrepreneurship Electives

ACCT 111 Small Business Accounting............................3
or
ACCT 121 Accounting I..........................................3
BUS 230 Marketing..........................................3
MKT 121 Retail Management...................................3
ENTR 120 Introduction to Entrepreneurship....................2
ENTR 131 Financial Management for Small Business*........2
ENTR 142 Fast Trac Business Plan.............................3
ENTR 160 Legal Issues for Small Business.....................2
ENTR 180 Opportunity Analysis...............................2
*Prerequisite/Corequisite required

Interior Merchandising, A.A.S.
Seven options in JCCC's interior design program offer students opportunities to choose a career path from a wide variety of exciting fields. Three associate of applied science degree options -- interior design, interior merchandising and interior entrepreneurship -- offer design, retail and business proprietorship skills. Three certificate programs, the interior products sales certificate, interior design and merchandising entrepreneurship certificate and the interior design sales and marketing representative certificate, are available for students who need skills for immediate employment or who want a broader knowledge base for their current employment. The interior design advanced certificate offers classes needed to sit for the NCIDQ exam.

JCCC's program offers courses in materials and resources, professional selling, business management, manual and CAD drafting, and product presentation, combined with a basic curriculum of business math, English and art history. Two required work-study internships help develop technical, creative and business skills.

Faculty have worked in the field, which equips them to offer valuable firsthand knowledge of what it takes to succeed.

Note: Metropolitan Community College students should seek specific counsel from the JCCC program personnel for the appropriate course plan and numbers. Missouri students should refer to Cooperative Program Information.

(2760 50.0408)

Interior Design

Associate of Applied Science Degree

First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITMD 121</td>
<td>Interior Design</td>
<td>3</td>
</tr>
<tr>
<td>ITMD 133</td>
<td>Furniture &amp; Ornamentation/Antiquity to Renaissance</td>
<td>3</td>
</tr>
<tr>
<td>DRAF 164</td>
<td>Architectural Drafting/Residential Interior Design</td>
<td>3</td>
</tr>
<tr>
<td>MATH 120</td>
<td>Business Math or higher*</td>
<td>3</td>
</tr>
<tr>
<td>ITMD 125</td>
<td>Interior Textiles</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 121</td>
<td>Composition I*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>TOTAL CREDIT HOURS</td>
<td>18</td>
</tr>
</tbody>
</table>

Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITMD 123</td>
<td>Space Planning*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Interiors Elective</td>
<td>3</td>
</tr>
<tr>
<td>ITMD 132</td>
<td>Materials and Resources</td>
<td>3</td>
</tr>
<tr>
<td>MKT 134</td>
<td>Professional Selling</td>
<td>3</td>
</tr>
<tr>
<td>ITMD 231</td>
<td>Furniture &amp; Ornamentation Renaissance to 20th Century</td>
<td>3</td>
</tr>
<tr>
<td>BUS 150</td>
<td>Business Communications*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>TOTAL CREDIT HOURS</td>
<td>18</td>
</tr>
</tbody>
</table>

Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITMD 271</td>
<td>Budgeting and Estimating*</td>
<td>3</td>
</tr>
<tr>
<td>ITMD 282</td>
<td>Interiors Internship I*</td>
<td>1</td>
</tr>
<tr>
<td>ARTH 180</td>
<td>See ARTH 180 for Art History: Ancient to Renaiss...</td>
<td>3</td>
</tr>
<tr>
<td>ECON 132</td>
<td>Survey of Economics</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>ECON 230</td>
<td>Economics I</td>
</tr>
<tr>
<td></td>
<td>Business/Marketing Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>TOTAL CREDIT HOURS</td>
<td>16</td>
</tr>
</tbody>
</table>

Fourth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITMD 273</td>
<td>Interiors Seminar: Practices and Procedures*</td>
<td>2</td>
</tr>
<tr>
<td>ITMD 284</td>
<td>Interiors Internship II*</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Business/Marketing Elective</td>
<td>3</td>
</tr>
<tr>
<td>FASH 125</td>
<td>Visual Merchandising</td>
<td>3</td>
</tr>
<tr>
<td>FASH 135</td>
<td>Image Management</td>
<td>1</td>
</tr>
</tbody>
</table>

spring-2007 Copyright 2007 Johnson County Community College Page 138
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITMD 180</td>
<td>Leadership in Design</td>
<td>1</td>
</tr>
<tr>
<td>ITMD 237</td>
<td>Capstone: Merchandising and Entrepreneurship*</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Physical Education Elective</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>TOTAL CREDIT HOURS</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>TOTAL PROGRAM CREDIT HOURS</td>
<td>68</td>
</tr>
</tbody>
</table>

**Interior Electives**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITMD 127</td>
<td>Elements of Floral Design</td>
<td>1</td>
</tr>
<tr>
<td>ITMD 140</td>
<td>Window Treatments*</td>
<td></td>
</tr>
<tr>
<td>ITMD 143</td>
<td>Accessory Fundamentals*</td>
<td></td>
</tr>
<tr>
<td>ITMD 145</td>
<td>Upholstered Furniture*</td>
<td></td>
</tr>
<tr>
<td>ITMD 147</td>
<td>Lighting Basics*</td>
<td></td>
</tr>
<tr>
<td>ITMD 148</td>
<td>History of Asian Furniture and Design</td>
<td>2</td>
</tr>
<tr>
<td>ITMD 149</td>
<td>Casegoods*</td>
<td>1</td>
</tr>
<tr>
<td>ITMD 150</td>
<td>Asian Rugs and Carpets</td>
<td>1</td>
</tr>
<tr>
<td>ITMD 175</td>
<td>Advanced Floral Design*</td>
<td></td>
</tr>
<tr>
<td>ITMD 213</td>
<td>Lighting Design and Planning*</td>
<td>3</td>
</tr>
<tr>
<td>ITMD 225</td>
<td>Interior Textiles II*</td>
<td></td>
</tr>
<tr>
<td>ITMD 250</td>
<td>20th Century Designers</td>
<td>1</td>
</tr>
<tr>
<td>ITMD 295</td>
<td>Field Study: Design and Merchandising*</td>
<td>3</td>
</tr>
<tr>
<td>ITMD 296</td>
<td>Interior Design: the Orient</td>
<td>3</td>
</tr>
</tbody>
</table>

**Business/Marketing Electives**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 145</td>
<td>Small Business Management</td>
<td>3</td>
</tr>
<tr>
<td>BUS 230</td>
<td>Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MKT 121</td>
<td>Retail Management</td>
<td>3</td>
</tr>
<tr>
<td>MKT 221</td>
<td>Sales Management*</td>
<td>3</td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required

**Interior Products Sales Representative Certificate**

The interior products sales representative certificate is a 17-credit-hour program designed for students employed in or seeking positions in the interior design retail market. The required courses are already included in the approved curriculum of the interior design program.

Faculty have worked in the field, which equips them to offer valuable first hand knowledge of what it takes to succeed.

Note: Metropolitan Community College students should seek specific counsel from the JCCC program personnel for the appropriate course plan and numbers. Missouri students should refer to Cooperative Program Information.

(6500 50.0408)

**Vocational Certificate**

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITMD 121</td>
<td>Interior Design</td>
<td>3</td>
</tr>
<tr>
<td>ITMD 125</td>
<td>Interior Textiles</td>
<td>3</td>
</tr>
<tr>
<td>ITMD 132</td>
<td>Materials and Resources</td>
<td>3</td>
</tr>
<tr>
<td>MATH 120</td>
<td>Business Math or higher*</td>
<td>3</td>
</tr>
<tr>
<td>MKT 134</td>
<td>Professional Selling</td>
<td>3</td>
</tr>
<tr>
<td>FASH 135</td>
<td>Image Management</td>
<td>1</td>
</tr>
<tr>
<td>ITMD 282</td>
<td>Interiors Internship I*</td>
<td>1</td>
</tr>
</tbody>
</table>

TOTAL PROGRAM CREDIT HOURS: 17

*Prerequisite/Corequisite required

**Interpreter Training, A.A.S.**
The employment outlook for sign language interpreters is promising. As the population grows, so does the need for interpreters. Another factor in the predicted increase in employment opportunities is the effort many social service agencies, school systems, medical services and industries are making to provide interpreter services.

JCCC’s program concentrates on preparing students to provide entry-level interpretation and transliteration for the deaf, hard of hearing and non-deaf communities. During the last semester of the program, students participate in a practicum class in which they interpret under supervision in a variety of situations. Upon successful completion of this program, and a required capstone evaluation, students will earn an associate of applied science degree.

This is a selective admission program with limited enrollment. The deadline for fall semester applications is in the spring. If you are interested, contact the Admissions office for an application packet, which includes prerequisites, deadlines, admission requirements and academic criteria.

(259A 16.1603)

Interpreter Training

Associate of Applied Science Degree

Prerequisites

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTR 120</td>
<td>Elementary American Sign Language I</td>
<td>3</td>
</tr>
<tr>
<td>INTR 121</td>
<td>Elementary American Sign Language II*</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 121</td>
<td>Composition I*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td><strong>9</strong></td>
</tr>
</tbody>
</table>

Note: ENGL 121 must be passed with a 'B' or higher.
Note: INTR 120 and 121 must be passed with a 'C' or higher.

General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 125</td>
<td>Cultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Note: ANTH 125 is required to meet the Social Science and/or Economics Elective and must be taken before second semester of the ITP.</td>
<td></td>
</tr>
<tr>
<td>SPD 120</td>
<td>Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Note: SPD 120 is required to meet the Communications Elective and must be taken before the second semester of the ITP.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Health and/or Physical Educ Elect</td>
<td>1</td>
</tr>
<tr>
<td>ENGL 122</td>
<td>Composition II*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Science and/or Math Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Humanities Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td><strong>19</strong></td>
</tr>
</tbody>
</table>

Note: It is highly recommended that all general education requirements be taken prior to enrollment in the program or during the summer. However, AAC 150 should be taken in student's last semester due to course/career relevancy.

First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTR 122</td>
<td>Intermediate American Sign Language I*</td>
<td>3</td>
</tr>
<tr>
<td>INTR 126</td>
<td>Classifiers in American Sign Language*</td>
<td>2</td>
</tr>
<tr>
<td>INTR 130</td>
<td>Survey of the Interpreting Profession*</td>
<td>3</td>
</tr>
<tr>
<td>INTR 147</td>
<td>Fingerspelling I*</td>
<td>2</td>
</tr>
<tr>
<td>INTR 145</td>
<td>Introduction to the Deaf Community*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td><strong>13</strong></td>
</tr>
</tbody>
</table>

Second Semester
American Sign Language Studies Certificate

The American Sign Language (ASL) studies postsecondary certificate has been developed based on the need for professional people in the community to be skilled in ASL. MATH 115 or higher is required for the certificate program; students planning to apply for admission to the interpreter training program after receiving their certificates are advised that MATH 116 or higher and/or a science elective are required for the A.A.S. degree. Students should contact a counselor or the career program facilitator for advice concerning graduation requirements.

Please note: INTR 145, INTR 122 and INTR 147 are only offered in the fall semester; INTR 123, INTR 135 and INTR 150 are only offered in the spring semester.

(6800 16.1603)
Interpreter Training

Postsecondary Certificate

First Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTR 120</td>
<td>Elementary American Sign Language I</td>
<td>3</td>
</tr>
<tr>
<td>INTR 145</td>
<td>Introduction to the Deaf Community*</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 121</td>
<td>Composition I*</td>
<td>3</td>
</tr>
<tr>
<td>Health/Physical Education Elective</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td></td>
<td><strong>10</strong></td>
</tr>
</tbody>
</table>

Second Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTR 121</td>
<td>Elementary American Sign Language II</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 122</td>
<td>Composition II*</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td></td>
<td><strong>9</strong></td>
</tr>
</tbody>
</table>

Third Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTR 122</td>
<td>Intermediate American Sign Language I*</td>
<td>3</td>
</tr>
<tr>
<td>INTR 147</td>
<td>Fingerspelling I*</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td></td>
<td><strong>9</strong></td>
</tr>
</tbody>
</table>
Fourth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTR 123</td>
<td>Intermediate American Sign Language II*</td>
<td>3</td>
</tr>
<tr>
<td>INTR 135</td>
<td>Intro to American Sign Language Linguistics*</td>
<td>3</td>
</tr>
<tr>
<td>INTR 150</td>
<td>American Sign Language Literature*</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL CREDIT HOURS**: 9

**TOTAL PROGRAM CREDIT HOURS**: 37

Math Elective

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 115</td>
<td>Introduction to Algebra*</td>
<td>3</td>
</tr>
<tr>
<td>MATH 116</td>
<td>Intermediate Algebra*</td>
<td>3</td>
</tr>
<tr>
<td>MATH 118</td>
<td>Geometry*</td>
<td>3</td>
</tr>
<tr>
<td>MATH 120</td>
<td>Business Mathematics*</td>
<td>3</td>
</tr>
<tr>
<td>MATH 122</td>
<td>Mathematics in Our Culture*</td>
<td>3</td>
</tr>
<tr>
<td>MATH 133</td>
<td>Technical Mathematics I*</td>
<td>4</td>
</tr>
<tr>
<td>MATH 134</td>
<td>Technical Mathematics II*</td>
<td>5</td>
</tr>
<tr>
<td>MATH 165</td>
<td>Finite Mathematics*</td>
<td>3</td>
</tr>
<tr>
<td>MATH 172</td>
<td>Trigonometry*</td>
<td>3</td>
</tr>
<tr>
<td>MATH 173</td>
<td>Precalculus*</td>
<td>5</td>
</tr>
<tr>
<td>MATH 175</td>
<td>Discrete Mathematics and its Applications*</td>
<td>3</td>
</tr>
<tr>
<td>MATH 181</td>
<td>Statistics*</td>
<td>3</td>
</tr>
<tr>
<td>MATH 225</td>
<td>Mathematics as a Decision Making Tool*</td>
<td>3</td>
</tr>
<tr>
<td>MATH 231</td>
<td>Business and Applied Calculus I*</td>
<td>3</td>
</tr>
<tr>
<td>MATH 232</td>
<td>Business and Applied Calculus II*</td>
<td>3</td>
</tr>
<tr>
<td>MATH 241</td>
<td>Calculus I*</td>
<td>5</td>
</tr>
<tr>
<td>MATH 242</td>
<td>Calculus II*</td>
<td>5</td>
</tr>
<tr>
<td>MATH 243</td>
<td>Calculus III*</td>
<td>5</td>
</tr>
<tr>
<td>MATH 244</td>
<td>Differential Equations*</td>
<td>3</td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required

Health Care Interpreting Certificate

Health care interpreting (HCI) is designed to give bilingual (English and Spanish) students the awareness, knowledge and skills necessary to serve as entry-level interpreters and translators in health care settings, including hospitals, clinics, medical offices and similar environments. Program completers should be eligible for employment as salaried or on-call staff interpreters, or as self-employed freelance interpreters. Employment opportunities may also be available with professional interpreting and translating service companies. Although the emphasis of the program is medical interpreting, the skills gained could be applied to other interpreting and translating settings in the community, such as conference and escort interpreting and translation of written documents.

The health care interpreting program is a 20-credit hour vocational program leading to a certificate of completion. It is designed to be completed in three semesters, although there is enough flexibility in the curriculum to extend the time period for several additional semesters, if the student prefers a slower pace. The program is organized in a progression of courses leading the student from general concepts to increasingly complex skills and knowledge, culminating in a comprehensive skills exam and a professional practicum. It includes five courses developed specifically for the program plus two courses offered through other departments. Students must earn a grade of C or higher in each of the program's courses to continue in the program. The latter two courses, AAC 130, Medical Terminology, and HC 101, Introduction to Health Care Delivery, do not have prerequisites and could be taken at any time prior to completion of the program.

The HCI program is organized as part of the JCCC interpreter training program, although it has its own unique course prefix (HCI) and curriculum. Other courses in the interpreter training program emphasize deaf communication and sign language. HCI students should enroll only in courses with the HCI prefix, plus AAC 130 and HC 101.

(4390 16.1603)

Interpreter Training

Vocational Certificate
Land Surveying, A.A.S.

This program leads to an associate in applied science degree which provides students with the experience and knowledge they need to take the exam to become a land surveyor.

The JCCC land surveying program is offered to Johnson County residents in cooperation with MCC-Longview Community College. The support courses are held at JCCC. Program course and credit hours are subject to change because of the requirement changes at the degree-granting institution. It is the student's responsibility to check with a JCCC counselor or advisor before enrollment.

Contact MCC-Longview Community College at 816-672-2510 for an application packet, which includes deadlines, program prerequisites and admission requirements.

For enrollment information regarding this cooperative program, go to Cooperative Program Information.

Associate of Applied Science Degree

Degree Granted by Metropolitan Community College

General Education Requirements-must be taken at JCCC

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 121</td>
<td>Composition I*</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 122</td>
<td>Composition II*</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 123</td>
<td>Technical Writing I*</td>
<td>3</td>
</tr>
<tr>
<td>SPD 121</td>
<td>Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>MATH 171</td>
<td>College Algebra*</td>
<td>3</td>
</tr>
<tr>
<td>AND</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 172</td>
<td>Trigonometry*</td>
<td>3</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 173</td>
<td>Precalculus*</td>
<td>5</td>
</tr>
<tr>
<td>HIST 140</td>
<td>U.S. History to 1877</td>
<td>3</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIST 141</td>
<td>U.S. History Since 1877</td>
<td>3</td>
</tr>
<tr>
<td>AND</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECON 132</td>
<td>Survey of Economics</td>
<td>3</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECON 230</td>
<td>Economics I</td>
<td>3</td>
</tr>
<tr>
<td>OR Two of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>POLS 122</td>
<td>Political Science</td>
<td>3</td>
</tr>
<tr>
<td>POLS 124</td>
<td>American National Government</td>
<td>3</td>
</tr>
</tbody>
</table>
POLS 126  State and Local Government...........................3

Specific Program Requirements-may be taken at JCCC

GEOS 140  Physical Geography........................................3
GEOS 141  Physical Geography Lab*.................................2
OR
ASTR 122  Astronomy......................................................4
MATH 181  Statistics*......................................................4
ENGR 180  Engineering Land Surveying I*........................3
ENTR 142  Fast Trac Business Plan.................................3

Specific Program Requirements-taken at MCC-Longview

KSS 300  Affiliate Social Science......................................1-3
KSS 112  Technical Physics*...........................................5
KSRV 152  Engineering Graphics & CADD I*.......................5
KSRV 137  Subdivision Planning and Layout*......................3
KSRV 235  Advanced Surveying*.......................................3
KSRV 236  Legal Aspects of Surveying*.............................3
KSRV 237  Land Surveying*.............................................3
KSRV 240  Analysis of Survey Measurements I*....................3
KSRV 242  Analysis of Survey Measurements II*....................3
TOTAL PROGRAM CREDIT HOURS........................................68-74

*Prerequisite/Corequisite required

Land Surveying Certificate

This certificate prepares an individual to take the state-licensing exam to become a registered land surveyor with the state of Missouri.

The JCCC land surveying certificate is offered to Johnson County residents in cooperation with MCC-Longview Community College. The support courses are held at JCCC. Program course and credit hours are subject to change because of the requirement changes at the degree-granting institution. It is the student’s responsibility to check with a JCCC counselor or advisor before enrollment. Contact MCC-Longview Community College at 816-672-2510 for an application packet, which includes deadlines, program prerequisites and admission requirements.

For enrollment information regarding this cooperative program, go to Cooperative Program Information.

Vocational Certificate

Certificate granted by Metropolitan Community College

Specific Program Requirements-must be taken at JCCC

MATH 171  College Algebra*.............................................3
AND
MATH 172  Trigonometry*.............................................3
OR
MATH 173  Precalculus*.................................................5
ENGR 180  Engineering Land Surveying I*.........................3

Specific Program Requirements-taken at MCC-Longview

KSRV 152  Engineering Graphics & CADD I*.......................5
KSRV 137  Subdivision Planning and Layout*.....................3
KSRV 235  Advanced Surveying*.....................................3
KSRV 236  Legal Aspects of Surveying*...........................3
KSRV 237  Land Surveying*...........................................3
TOTAL PROGRAM CREDIT HOURS....................................26-29

*Prerequisite/Corequisite required
Paralegal, A.A.

The expanding role of the paralegal in the delivery of legal services has created increased opportunities with private law firms, corporate legal departments, insurance companies, real estate and title firms, banks, and government agencies. If you are interested in entering this career field, you should be aware that although the number of jobs for trained paralegals is rising, competition for these positions is increasing.

The paralegal program at JCCC

- has a challenging curriculum
- requires that you possess excellent communication skills, analytical ability and a high level of motivation
- is approved by the American Bar Association
- is a selective admission program based on various academic and testing criteria

(264A 22.0302)
Paralegal

Associate of Arts Degree

The following courses must be completed with a minimum GPA of 2.0 prior to application for admission to the paralegal program. Upon successful completion of the requirements for the associate of arts degree, you will be eligible to receive an A.A. degree and a paralegal certificate.

ENGL 121 Composition I* .......................................3
LAW 121 Introduction to Law .....................................3
LAW 123 Paralegal Professional Studies ..........................1

Suggested Order of Courses: Students may take any number of courses each semester that will also allow them to fulfill their other personal and professional responsibilities.

First Semester

SPD 120 Interpersonal Communication ..................................3
or
SPD 121 Public Speaking .............................................3
or
SPD 125 Personal Communication ....................................3
Science and Mathematics Electives .................................3
TOTAL CREDIT HOURS ...........................................16

Second Semester

Following admission to the paralegal program:

ENGL 122 Composition II* .............................................3
LAW 131 Legal Research* ............................................3
LAW 132 Civil Litigation* ............................................3
CPCA 128 PC Applications: Office 2003.........................3
or
CIS 124 Introduction to Computer Concepts and Applications...3
or the following three:
CPCA 108 Word Processing I: MS Word* ......................1
and
CPCA 110 Spreadsheets I: MS Excel* ............................1
and
CPCA 114 Databases I: MS Access* .............................1
Social Science and/or Economics Electives ............3
TOTAL CREDIT HOURS ..................................15

Third Semester

LAW 205  Legal Writing*..................................3
Paralegal Electives......................................6
Health and/or Physical Education Elective..............1
Humanities Elective..................................3
Science and Mathematics Elective.......................3
TOTAL CREDIT HOURS ..................................16

Fourth Semester

LAW 271  Legal Ethics, Interviewing and Investigation*......3
Paralegal Electives......................................8
Science and Mathematics Electives.......................3
TOTAL CREDIT HOURS ..................................17
TOTAL PROGRAM CREDIT HOURS..........................64

Paralegal Electives

LAW 140  Alternative Dispute Resolution*....................3
LAW 142  Torts*...........................................3
LAW 148  Criminal Litigation*..............................3
LAW 152  Real Estate Law*..................................3
LAW 162  Family Law*......................................3
LAW 171  Law Office Management*..........................3
LAW 173  Judicial Academy*................................1
LAW 212  Business Organizations*..........................3
LAW 220  Computer-Assisted Legal Research*..............2
LAW 223  Computer Applications in the Law Office*........3
LAW 241  Wills, Trusts and Probate Administration*........3
LAW 245  Elder Law*......................................3
LAW 247  Intellectual Property Law*.......................3
LAW 266  Employment Law*................................3
LAW 268  Bankruptcy*....................................2
LAW 270  Administrative Law*..............................3
LAW 275  Paralegal Internship I*............................1
LAW 276  Paralegal Internship II*...........................1
*Prerequisite/Corequisite required

Legal Nurse Consultant Certificate

A legal nurse consultant (LNC) is a registered nurse who possesses both medical and legal knowledge. The LNC assists members of the legal profession with medical malpractice, personal injury and workers’ compensation cases. The LNC functions in two roles: a consulting expert and a testifying expert.

Prior to admission, you must have earned a registered nurse degree and have satisfied JCCC and American Bar Association general education requirements. Students will have fulfilled these general education requirements if they have 18 hours of general education. LNC applicants must also possess a current state license to practice nursing and have completed 2,500 hours of clinical work as a registered nurse.

(5450 22.0302)

Legal Nurse Consulting

Vocational Certificate

Required Courses

LAW 225  Legal Nurse Consultant Profession*...............1
LAW 121  Introduction to Law................................3
LAW 131  Legal Research*..................................3
Legal Nurse Consultant Entrepreneurship Certificate

This 28 credit-hour certificate is designed to prepare students to realize their entrepreneurial dream of opening their own legal nurse consultant (LNC) service business providing two services to their clients: consulting expertise and a testifying expert. A legal nurse consultant is a registered nurse who possesses both medical and legal knowledge. The LNC assists members of the legal profession with medical malpractice, personal injury and workers’ compensation cases.

This certificate is designed to provide the student with basic skills as a legal nurse consultant as well as small business development and management skills. Upon successful completion, the student should be prepared to develop, grow and sustain their own legal nurse consultant service business.

Prior to admission, you must have earned a registered nurse degree and have satisfied JCCC and American Bar Association general education requirements. Students will have fulfilled these general education requirements if they have 18 hours of general education credits. LNC applicants must also possess a current state license to practice nursing and have completed 2,500 hours of clinical work as a registered nurse.

(4060 22.0302)

Paralegal

Vocational Certificate

Prerequisites for Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAW 121</td>
<td>Introduction to Law</td>
</tr>
<tr>
<td>BUS 230</td>
<td>Marketing</td>
</tr>
</tbody>
</table>

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAW 225</td>
<td>Legal Nurse Consultant Profession</td>
</tr>
<tr>
<td>LAW 131</td>
<td>Legal Research*</td>
</tr>
<tr>
<td>ENTR 120</td>
<td>Introduction to Entrepreneurship</td>
</tr>
<tr>
<td>ENTR 180</td>
<td>Opportunity Analysis</td>
</tr>
<tr>
<td>LAW 250</td>
<td>Medicolegal Research and Writing*</td>
</tr>
<tr>
<td>LAW 205</td>
<td>Legal Writing*</td>
</tr>
</tbody>
</table>

Note: Students must take one of the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAW 140</td>
<td>Alternative Dispute Resolution*</td>
</tr>
<tr>
<td>LAW 142</td>
<td>Torts*</td>
</tr>
<tr>
<td>LAW 148</td>
<td>Criminal Litigation*</td>
</tr>
<tr>
<td>LAW 152</td>
<td>Real Estate Law*</td>
</tr>
<tr>
<td>LAW 162</td>
<td>Family Law*</td>
</tr>
<tr>
<td>LAW 171</td>
<td>Law Office Management*</td>
</tr>
<tr>
<td>LAW 212</td>
<td>Business Organizations*</td>
</tr>
<tr>
<td>LAW 241</td>
<td>Wills, Trusts and Probate Administration*</td>
</tr>
<tr>
<td>LAW 245</td>
<td>Elder Law*</td>
</tr>
<tr>
<td>LAW 247</td>
<td>Intellectual Property Law*</td>
</tr>
<tr>
<td>LAW 266</td>
<td>Employment Law*</td>
</tr>
<tr>
<td>LAW 268</td>
<td>Bankruptcy*</td>
</tr>
</tbody>
</table>

TOTAL PROGRAM CREDIT HOURS: 21-22
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAW 260</td>
<td>Personal Injury Law*</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>LAW 132</td>
<td>3</td>
</tr>
<tr>
<td>LAW 270</td>
<td>Administrative Law*</td>
<td>3</td>
</tr>
<tr>
<td>LAW 271</td>
<td>Legal Ethics, Interviewing and Investigation*</td>
<td>3</td>
</tr>
<tr>
<td>LAW electives</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>ENTR 142</td>
<td>Fast Trac Business Plan</td>
<td>3</td>
</tr>
<tr>
<td>ENTR 220</td>
<td>Entrepreneurial Marketing*</td>
<td>2</td>
</tr>
<tr>
<td>TOTAL PROGRAM CREDIT HOURS</td>
<td></td>
<td><strong>28</strong></td>
</tr>
</tbody>
</table>

**LAW Electives**

Students are encouraged to choose additional LAW coursework which will enhance their ability to develop, grow, and sustain their Legal Nurse Consultant entrepreneurial business concept.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAW 140</td>
<td>Alternative Dispute Resolution*</td>
<td>3</td>
</tr>
<tr>
<td>LAW 142</td>
<td>Torts*</td>
<td>3</td>
</tr>
<tr>
<td>LAW 148</td>
<td>Criminal Litigation*</td>
<td>3</td>
</tr>
<tr>
<td>LAW 152</td>
<td>Real Estate Law*</td>
<td>3</td>
</tr>
<tr>
<td>LAW 162</td>
<td>Family Law*</td>
<td>3</td>
</tr>
<tr>
<td>LAW 171</td>
<td>Law Office Management*</td>
<td>3</td>
</tr>
<tr>
<td>LAW 212</td>
<td>Business Organizations*</td>
<td>3</td>
</tr>
<tr>
<td>LAW 241</td>
<td>Wills, Trusts and Probate Administration*</td>
<td>3</td>
</tr>
<tr>
<td>LAW 245</td>
<td>Elder Law*</td>
<td>3</td>
</tr>
<tr>
<td>LAW 247</td>
<td>Intellectual Property Law*</td>
<td>3</td>
</tr>
<tr>
<td>LAW 266</td>
<td>Employment Law*</td>
<td>3</td>
</tr>
<tr>
<td>LAW 268</td>
<td>Bankruptcy*</td>
<td>2</td>
</tr>
</tbody>
</table>

**Additional Suggested Coursework**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENTR 160</td>
<td>Legal Issues for Small Business</td>
<td>2</td>
</tr>
<tr>
<td>ENTR 195</td>
<td>Franchising*</td>
<td>3</td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required

**Paralegal Certificate**

You must have completed a two-year degree or a four-year degree and have satisfied JCCC and American Bar Association general education requirements prior to admission. Students will have fulfilled these general education requirements if they have 18 hours of general education credit, including Composition I and Introduction to Algebra or a higher math course.

The following courses must be completed with a minimum GPA of 2.0 prior to application for admission to the paralegal program.

(489A 22.0302)

Paralegal

**Postsecondary Certificate**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAW 121</td>
<td>Introduction to Law</td>
<td>3</td>
</tr>
<tr>
<td>LAW 123</td>
<td>Paralegal Professional Studies</td>
<td>1</td>
</tr>
</tbody>
</table>

Suggested order of courses: Students may take any number of courses each semester that will also allow them to fulfill their other personal and professional responsibilities.

**First Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPCA 128</td>
<td>PC Applications: Office 2003</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>CIS 124</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>the following three:</td>
<td></td>
</tr>
<tr>
<td>CIS 108</td>
<td>Word Processing I: MS Word*</td>
<td>1</td>
</tr>
</tbody>
</table>
and
CPCA 110 Spreadsheets I: MS Excel*............................1
and
CPCA 114 Databases I: MS Access*............................1
TOTAL CREDIT HOURS...................................7

Second Semester

Following admission to the paralegal program
LAW 131 Legal Research*......................................3
LAW 132 Civil Litigation*..................................3
Paralegal Electives........................................7
TOTAL CREDIT HOURS.....................................13

Third Semester

LAW 205 Legal Writing*......................................3
LAW 271 Legal Ethics, Interviewing and Investigation*........3
Paralegal Electives........................................7
TOTAL CREDIT HOURS.....................................13
TOTAL PROGRAM CREDIT HOURS............................33

Paralegal Electives

LAW 140 Alternative Dispute Resolution*......................3
LAW 142 Torts*...............................................3
LAW 148 Criminal Litigation*................................3
LAW 152 Real Estate Law*..................................3
LAW 162 Family Law*.........................................3
LAW 171 Law Office Management*............................3
LAW 173 Judicial Academy*................................1
LAW 212 Business Organizations*............................3
LAW 220 Computer-Assisted Legal Research*..................2
LAW 223 Computer Applications in the Law Office*..........3
LAW 241 Wills, Trusts and Probate Administration*..........3
LAW 245 Elder Law*...........................................3
LAW 247 Intellectual Property Law*............................3
LAW 266 Employment Law*..................................3
LAW 268 Bankruptcy*.........................................2
LAW 270 Administrative Law*................................3
LAW 275 Paralegal Internship I*..............................1
LAW 276 Paralegal Internship II*.............................1
*Prerequisite/Corequisite required

Marketing and Management, A.A.S.

Merchandising, marketing and management-related fields have recently experienced tremendous growth and expansion in Johnson County. Surveys indicate that few other areas offer greater opportunity to qualified people. In fact, employment of people in this field is expected to increase faster than the average for all occupations nationwide.

JCCC’s marketing and management program prepares you for jobs in this field. Graduates of JCCC’s program are ready for entry-level management or sales positions in retail, wholesale or manufacturing and marketing services.

Through marketing and management courses and in the case studies capstone course, you learn the latest in business trends. You also learn the importance of good customer service and the skills needed to deliver that service. The curriculum reflects current industry standards, including an emphasis on personal computer use, interpersonal communications and human relations.

Because all marketing and management students work at least 15 hours a week each semester in a store or business, you can apply what you learn in the classroom to your job. You also can take your work experiences back to the classroom for analysis and a greater understanding of the problems businesses face. You acquire basic merchandising information and learn how to work with people. By integrating coursework and on-the-job experience, you are given the knowledge, skills and attitudes necessary to reach your career objectives.
Marketing and Management

Associate of Applied Science Degree

First Semester

MKT 134 Professional Selling.................................3
ENGL 121 Composition I*.....................................3
MATH 120 Business Math or higher*.........................3
BUS 121 Introduction to Business............................3
BUS 230 Marketing...........................................3
MKT 284 Marketing and Management Internship I...........1

TOTAL CREDIT HOURS..................................16

Second Semester

ACCT 111 Small Business Accounting..........................3
or
ACCT 121 Accounting I......................................3
MKT 121 Retail Management..................................3
MKT 202 Consumer Behavior..................................3
BUS 150 Business Communications*..........................3
BUS 141 Principles of Management............................3
MKT 286 Marketing and Management Internship II*.........1

TOTAL CREDIT HOURS..................................16

Third Semester

MKT 234 Services Marketing*..................................3
MKT 240 Advertising and Promotion..........................3
ECON 132 Survey of Economics.................................3
or
ECON 230 Economics I.......................................3
HUM 122 Introduction to Humanities..........................3
CIS 124 Introduction to Computer Concepts and Applications..3
and
CPCA/CDTP elective..........................................1
Note: CPCA 105/106 will not meet this one hour requirement.

or

CPCA/CDTP electives.........................................4
MKT 288 Marketing and Management Internship III*.......1

TOTAL CREDIT HOURS..................................17

Fourth Semester

MKT 221 Sales Management*..................................3
MKT 290 Capstone: Marketing and Management Case Studies*...3
BUS 261 Business Law I.......................................3
HIST 141 U.S. History Since 1877..............................3
PHIL 138 Business Ethics.....................................1
MKT 289 Marketing and Management Internship IV*.........1

TOTAL CREDIT HOURS..................................15
TOTAL PROGRAM
CREDIT HOURS.............................................64

*Prerequisite/Corequisite required

Marketing Specialist Entrepreneurship Certificate

The marketing specialist entrepreneurship certificate prepares students to realize their entrepreneurial dream of opening their own service business providing marketing services to businesses. This certificate is designed to provide the student with basic skills in marketing as well as basic skills in small business.
development and management. Upon successful completion, students should be prepared to develop and sustain their own marketing services business.

(4250 52.1803)

Marketing and Management

Vocational Certificate

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 230</td>
<td>Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MKT 134</td>
<td>Professional Selling</td>
<td>3</td>
</tr>
<tr>
<td>MKT 121</td>
<td>Retail Management</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 111</td>
<td>Small Business Accounting</td>
<td>3</td>
</tr>
<tr>
<td>or ACCT 121</td>
<td>Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ENTR 120</td>
<td>Introduction to Entrepreneurship</td>
<td>2</td>
</tr>
<tr>
<td>ENTR 180</td>
<td>Opportunity Analysis</td>
<td>2</td>
</tr>
<tr>
<td>MKT 202</td>
<td>Consumer Behavior</td>
<td>3</td>
</tr>
<tr>
<td>MKT 240</td>
<td>Advertising and Promotion</td>
<td>3</td>
</tr>
<tr>
<td>ENTR 131</td>
<td>Financial Management for Small Business*</td>
<td>2</td>
</tr>
<tr>
<td>ENTR 220</td>
<td>Entrepreneurial Marketing*</td>
<td>2</td>
</tr>
<tr>
<td>ENTR 142</td>
<td>Fast Trac Business Plan</td>
<td>3</td>
</tr>
<tr>
<td>MKT 284</td>
<td>Marketing and Management Internship I</td>
<td>1</td>
</tr>
<tr>
<td>TOTAL PROGRAM CREDIT HOURS</td>
<td></td>
<td>30</td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required

Additional Suggested Coursework

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENTR 195</td>
<td>Franchising*</td>
<td>3</td>
</tr>
<tr>
<td>ENTR 160</td>
<td>Legal Issues for Small Business</td>
<td>2</td>
</tr>
<tr>
<td>MKT 234</td>
<td>Services Marketing*</td>
<td>3</td>
</tr>
</tbody>
</table>

Retail Sales Representative Certificate

This retail sales representative certificate is designed for students seeking positions in the growing retail industry in Johnson County.

(5260 52.1803)

Marketing and Management

Vocational Certificate

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 230</td>
<td>Marketing</td>
<td>3</td>
</tr>
<tr>
<td>FASH 135</td>
<td>Image Management</td>
<td>1</td>
</tr>
<tr>
<td>MKT 121</td>
<td>Retail Management</td>
<td>3</td>
</tr>
<tr>
<td>MKT 134</td>
<td>Professional Selling</td>
<td>3</td>
</tr>
<tr>
<td>MKT 202</td>
<td>Consumer Behavior</td>
<td>3</td>
</tr>
<tr>
<td>MKT 234</td>
<td>Services Marketing*</td>
<td>3</td>
</tr>
<tr>
<td>MKT 284</td>
<td>Marketing and Management Internship I</td>
<td>1</td>
</tr>
<tr>
<td>TOTAL PROGRAM CREDIT HOURS</td>
<td></td>
<td>17</td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required

All 17 credit hours in the retail sales representative certificate program apply to the 35-credit-hour sales and customer service certificate.

Sales and Customer Relations Certificate

JCCC’s sales and customer relations program is designed for people employed in sales who wish to refine their skills or those who are contemplating a career in sales. The program focuses on the steps involved in the selling process and the
delivery of effective customer service. Students who complete the program may find careers in sales (retail, wholesale or manufacturing) or in the customer service departments of stores, businesses and manufacturers.

All of the 30 credit hours required for the sales and customer relations certificate apply toward JCCC’s 64-credit-hour marketing and management associate of applied science degree.

Overall, employment in the selling field is expected to increase significantly through the year 2005.

Marketing and Management

Vocational Certificate

Prerequisite for Required Course

ENGL 121 Composition I*.................................3

Required Courses

MKT 134 Professional Selling.................................3
MKT 121 Retail Management..................................................3
BUS 150 Business Communications*.................................3
BUS 230 Marketing.........................................................3
FASH 135 Image Management.................................................1
MKT 284 Marketing and Management Internship I...............1
MKT 202 Consumer Behavior..............................................3
MKT 221 Sales Management*............................................3
MKT 234 Services Marketing*...........................................3
MKT 240 Advertising and Promotion..................................3
CIS 124 Introduction to Computer Concepts and Applications...3

or

CPCA/CDTP electives.........................................................3
MKT 286 Marketing and Management Internship II*...............1
TOTAL PROGRAM CREDIT HOURS..........................30

*Prerequisite/Corequisite required

Supervision Management Certificate

The supervision management certificate is a 25-credit-hour program designed for students who desire to be or have been designated as managers. The certificate meets the basic core competencies of being a manager or a supervisor.

Marketing and Management

Vocational Certificate

Required Courses

BUS 121 Introduction to Business.................................3
BUS 140 Principles of Supervision.................................3
BUS 141 Principles of Management.................................3
BUS 150 Business Communications*.................................3
BUS 230 Marketing.........................................................3
MKT 202 Consumer Behavior..............................................3
BUS 120 Management Attitudes and Motivation...............3

or

BUS 225 Human Relations..................................................3
MKT 234 Services Marketing*...........................................3
MKT 284 Marketing and Management Internship I...............1
TOTAL PROGRAM CREDIT HOURS..........................25
Teleservice Representative Certificate

The teleservice representative certificate program at JCCC was developed in conjunction with the Kansas City Area Call Center Managers Users Group with the objective of providing students with business and practical skills that will help make them successful in the teleservice industry. Twenty-four of the 33 credit hours required for the teleservice representative certificate apply toward JCCC’s 64-credit-hour marketing and management associate of applied science degree.

Marketing and Management

Vocational Certificate

First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 121</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 150</td>
<td>Business Communications*</td>
<td>3</td>
</tr>
<tr>
<td>BUS 230</td>
<td>Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MKT 140</td>
<td>Teleservice Communication Skills</td>
<td>3</td>
</tr>
<tr>
<td>MATH 120</td>
<td>Business Mathematics*</td>
<td>3</td>
</tr>
<tr>
<td>MKT 284</td>
<td>Marketing and Management Internship I</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>TOTAL CREDIT HOURS</td>
<td>16</td>
</tr>
</tbody>
</table>

Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 123</td>
<td>Personal Finance</td>
<td>3</td>
</tr>
<tr>
<td>MKT 202</td>
<td>Consumer Behavior</td>
<td>3</td>
</tr>
<tr>
<td>MKT 234</td>
<td>Services Marketing*</td>
<td>3</td>
</tr>
<tr>
<td>BOT 130</td>
<td>Office Systems Concepts</td>
<td>3</td>
</tr>
<tr>
<td>CIS 124</td>
<td>Introduction to Computer Concepts and Applications^</td>
<td>3</td>
</tr>
<tr>
<td>and</td>
<td>CPCA/CDTP elective</td>
<td>1</td>
</tr>
<tr>
<td>or</td>
<td>CPCA/CDTP electives</td>
<td>4</td>
</tr>
<tr>
<td>Note:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CPCA 105 and 106 do not meet requirements.</td>
<td></td>
</tr>
<tr>
<td>MKT 286</td>
<td>Marketing and Management Internship II*</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>TOTAL CREDIT HOURS</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>TOTAL PROGRAM CREDIT HOURS</td>
<td>33</td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required

NOTE: ^Recommended for students who intend to transfer to a baccalaureate degree program

Teletrac Certificate

This certificate program meets the core competencies outlined by the Call Center User’s Group, a group of area business leaders in the teleservice industry. This program includes one internship during which students will learn through hands-on industry experience. All 14 credit hours in this certificate can be applied toward the 33-credit-hour teleservice representative certificate program.

Marketing and Management

Vocational Certificate

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 121</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>MKT 140</td>
<td>Teleservice Communication Skills</td>
<td>3</td>
</tr>
<tr>
<td>MKT 202</td>
<td>Consumer Behavior</td>
<td>3</td>
</tr>
<tr>
<td>MATH 120</td>
<td>Business Mathematics*</td>
<td>3</td>
</tr>
<tr>
<td>BOT 101</td>
<td>Computerized Keyboarding**</td>
<td>1</td>
</tr>
</tbody>
</table>
Metal Fabrication Technology, A.A.S.

The welding technology/metal fabrication is a safety-oriented program that provides students the opportunity to learn practical knowledge and skill competencies associated with welding, metal fabrication and related processes. The JCCC welding technology/metal fabrication curriculum is designed to prepare students for various phases and levels of occupational skills. The program also offers currently employed professional welders the opportunity to upgrade their skills by taking advanced welding courses. Day and evening classes are available. Opportunities for those who wish to become welders, cutters and machine operators should be good through the year 2010. The number of qualified (certified) welders graduating from technical schools and community colleges is expected to be in balance with the number of future job openings. Welding technology/metal fabrication offers the service of four welding instructors and two machine tool instructors. Two are American Society (AWS) Certified Welding Inspectors (CWIs) for the inspection and testing of welds. JCCC welding technology professors can customize welding and machine programs to provide course materials utilizing many processes, materials or welding positions that can meet a particular company’s needs.

JCCC provides well-equipped laboratories that enable students to receive instruction in blueprint and symbol reading for welders. The welding technology program consists of individual welding processes that allow students time to master each. After students master the Introduction to Welding course, other welding processes can be selected to meet individual needs. They are oxyacetylene welding (OAW) and cutting (OFC), plasma arc cutting (PAC), shielded metal arc welding (SMAW), gas metal arc welding (GMAW), flux cored arc welding (FCAW), gas tungsten arc welding (GTAW), metallurgy and allied processes. Basic machining includes hands-on training with milling machines, turning lathes, surface grinders, band saws and the use of hand tools. The program is accredited as an American Welding Society Participating Organization in the Training and Testing of Entry Level Welders. Eligible students may elect to test under AWS QC10 certification guidelines and, if successful, be listed in the AWS National Registry of Entry Level Welders.

A series of welder related certificates are offered, all leading toward the associate of applied science degree.

(2460 48.0501)

Metal Fabrication (Welding) Technology

Associate of Applied Science Degree

First Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDT 125</td>
<td>Industrial Safety</td>
<td>3</td>
</tr>
<tr>
<td>MFAB 121</td>
<td>Introduction to Welding</td>
<td>4</td>
</tr>
<tr>
<td>ENGL 121</td>
<td>Composition I*</td>
<td>3</td>
</tr>
<tr>
<td>MATH 133</td>
<td>Technical Mathematics I*</td>
<td>4</td>
</tr>
<tr>
<td>CPCA 105</td>
<td>Introduction to Personal Computers: Windows</td>
<td>1</td>
</tr>
<tr>
<td>MFAB 180</td>
<td>Blueprint and Symbols Reading for Welders</td>
<td>2</td>
</tr>
<tr>
<td>TOTAL CREDIT HOURS</td>
<td></td>
<td>17</td>
</tr>
</tbody>
</table>

Second Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFAB 125</td>
<td>Advanced Gas and Arc Welding*</td>
<td>4</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MFAB 140</td>
<td>Maintenance Repair Welding*</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 123</td>
<td>Technical Writing I*</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 133</td>
<td>Applied Physics*</td>
<td>5</td>
</tr>
<tr>
<td>MFAB 152</td>
<td>Manufacturing Materials and Processes</td>
<td>3</td>
</tr>
<tr>
<td>HPER 200</td>
<td>First Aid and CPR</td>
<td>2</td>
</tr>
<tr>
<td>INDT 155</td>
<td>Workplace Skills</td>
<td>1</td>
</tr>
</tbody>
</table>
### Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFAB 130</td>
<td>Gas Metal Arc Welding I</td>
<td>4</td>
</tr>
<tr>
<td>MFAB 170</td>
<td>Basic Machine Tool Processes</td>
<td>4</td>
</tr>
<tr>
<td>BUS 140</td>
<td>Principles of Supervision</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Social Science Elective</td>
<td>3</td>
</tr>
<tr>
<td>Related Elective</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL CREDIT HOURS</td>
<td></td>
<td>17</td>
</tr>
</tbody>
</table>

### Fourth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFAB 160</td>
<td>Gas Tungsten Arc Welding*</td>
<td>4</td>
</tr>
<tr>
<td>MFAB 240</td>
<td>Metallurgy</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Humanities Elective</td>
<td>3</td>
</tr>
<tr>
<td>Related Electives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL CREDIT HOURS</td>
<td></td>
<td>15</td>
</tr>
</tbody>
</table>

### Related Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO 121</td>
<td>Small Engine Service</td>
<td>3</td>
</tr>
<tr>
<td>BUS 120</td>
<td>Management Attitudes and Motivation</td>
<td>3</td>
</tr>
<tr>
<td>BUS 145</td>
<td>Small Business Management</td>
<td>3</td>
</tr>
<tr>
<td>ENTR 142</td>
<td>Fast Trac Business Plan</td>
<td>3</td>
</tr>
<tr>
<td>CET 105</td>
<td>Construction Methods</td>
<td>3</td>
</tr>
<tr>
<td>CIS 124</td>
<td>Introduction to Computer Concepts and Applications</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 131</td>
<td>Introduction to Sensors and Actuators</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 133</td>
<td>Programmable Controllers</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 210</td>
<td>Technical Writing II*</td>
<td>3</td>
</tr>
<tr>
<td>HVAC 167</td>
<td>Sheet Metal Layout and Fabrication</td>
<td>3</td>
</tr>
<tr>
<td>INDT 140</td>
<td>Quality Improvement Using SPC</td>
<td>2</td>
</tr>
<tr>
<td>MATH 134</td>
<td>Technical Mathematics II*</td>
<td>5</td>
</tr>
<tr>
<td>MFAB 127</td>
<td>Welding Processes</td>
<td>2</td>
</tr>
<tr>
<td>MFAB 230</td>
<td>Gas Metal Arc Welding II*</td>
<td>4</td>
</tr>
<tr>
<td>MFAB 271</td>
<td>Metal Fabrication Internship*</td>
<td>3</td>
</tr>
<tr>
<td>RRT 165</td>
<td>Railroad Safety, Quality and Environment</td>
<td>3</td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required

### Metal Fabrication Technology Certificate

The welding/metal fabrication vocational certificate program teaches welding skills in the areas of shielded metal arc welding (SMAW), gas metal arc welding (GMAW), flux cored arc welding (FCAW), oxyacetylene welding (OAW) and cutting (OFC), plasma arc cutting (PAC), shielded metal arc welding (SMAW), gas metal arc welding (GMAW), and gas tungsten arc welding (GTAW). The students also will receive training in safety and basic blueprint reading. This should give the student the skills needed to successfully enter the field of welding.

(4790 48.0501)

**Metal Fabrication (Welding) Technology**

### Vocational Certificate

#### Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDT 125</td>
<td>Industrial Safety</td>
<td>3</td>
</tr>
<tr>
<td>MFAB 180</td>
<td>Blueprint and Symbols Reading for Welders</td>
<td>2</td>
</tr>
<tr>
<td>MFAB 121</td>
<td>Introduction to Welding</td>
<td>4</td>
</tr>
<tr>
<td>MFAB 125</td>
<td>Advanced Gas and Arc Welding*</td>
<td>4</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MFAB 140</td>
<td>Maintenance Repair Welding*</td>
<td>3</td>
</tr>
<tr>
<td>MFAB 130</td>
<td>Gas Metal Arc Welding I</td>
<td>4</td>
</tr>
<tr>
<td>MFAB 160</td>
<td>Gas Tungsten Arc Welding*</td>
<td>4</td>
</tr>
<tr>
<td>MFAB 230</td>
<td>Gas Metal Arc Welding II*</td>
<td>4</td>
</tr>
</tbody>
</table>
Combination Welder I Certificate

This certificate is the second step to the achievement of the MFAB A.A.S. degree. It is 11 college credit hours of general basic knowledge in welding.

The Combination Welder I certificate could be a completion point, for employment as a combination welder. This certificate verifies that the student has an understanding of several welding and cutting processes, and is entry level skilled with two basic welding processes, shielded metal arc welding (SMAW) and gas metal welding (GMAW). The student should have an understanding of basic metallurgy or welding symbols and blue print reading for welders.

Students are encouraged to pursue other welding certificates that will enhance their knowledge of welding and metal fabrication.

Metal Fabrication (Welding) Technology

Vocational Certificate

Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFAB 121</td>
<td>Introduction to Welding</td>
<td>4</td>
</tr>
<tr>
<td>MFAB 130</td>
<td>Gas Metal Arc Welding I</td>
<td>4</td>
</tr>
<tr>
<td>MFAB 240</td>
<td>Metallurgy</td>
<td>2</td>
</tr>
<tr>
<td>INDT 155</td>
<td>Workplace Skills</td>
<td>1</td>
</tr>
<tr>
<td>TOTAL PROGRAM CREDIT HOURS</td>
<td>11</td>
<td></td>
</tr>
</tbody>
</table>

Combination Welder II Certificate

This certificate is the third step to achievement of the MFAB A.A.S. degree. It is 14 college credit hours of advanced welding knowledge.

Entry into this vocational certificate will depend on the applicant's past experience as a welder and on the prerequisites of course materials.

This certificate is a completion point if an advanced combination welder with entry level skills in several welding processes is needed. Both certificates, general basic welding and the combination welder I, must be completed before the combination welder II can be taken.

This certificate verifies that the student has entry level skills in at least four main welding processes, Shielded Metal Arc Welding (SMAW), Gas Metal Arc Welding I (GMAW), Gas Tungsten Arc Welding (GTAW) and Gas Metal Arc Welding-S (GMAW-S) and aluminum wire. The student should have successfully completed work place skills. Blue print and symbol reading for welders and/or metallurgy.

Metal Fabrication (Welding) Technology

Vocational Certificate

Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFAB 125</td>
<td>Advanced Gas and Arc Welding*</td>
<td>4</td>
</tr>
<tr>
<td>MFAB 160</td>
<td>Gas Tungsten Arc Welding*</td>
<td>4</td>
</tr>
<tr>
<td>MFAB 180</td>
<td>Blueprint and Symbols Reading for Welders</td>
<td>2</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MFAB 240</td>
<td>Metallurgy</td>
<td>2</td>
</tr>
<tr>
<td>MFAB 230</td>
<td>Gas Metal Arc Welding II*</td>
<td>4</td>
</tr>
<tr>
<td>TOTAL PROGRAM CREDIT HOURS</td>
<td>14</td>
<td></td>
</tr>
</tbody>
</table>
Combination Welder/Machinist I Certificate

This certificate is the fourth step to the achievement of the MFAB A.A.S. degree. It is 15 college credit hours with an emphasis on machine tool materials and processes.

Completion of this vocational certificate will depend on the applicants past experience as a welder, and/or machinist, and on the prerequisites of course materials and successfully completing the basic machine tool processes class.

The advanced combination welder/machinist provides entry level skills in several welding processes. Both certificates, general basic welding and combination welder I, must be completed before starting this certificate. Combination Welder II is optional welding training and can be taken before or after this certificate is pursued.

This vocational certificate verifies that the student understands and has entry level skills with several basic machines and processes welding and cutting skills needed for entry level repair welding with multiple welding processes and machine tool skills.

The student should also have an understanding of metallurgy and blueprint and symbols for welders.

(4620 48.0501)

Metal Fabrication (Welding) Technology

Vocational Certificate

Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFAB 121</td>
<td>Introduction to Welding</td>
<td>4</td>
</tr>
<tr>
<td>or</td>
<td>MFAB 130</td>
<td>Gas Metal Arc Welding I</td>
</tr>
<tr>
<td>MFAB 140</td>
<td>Maintenance Repair Welding*</td>
<td>3</td>
</tr>
<tr>
<td>MFAB 152</td>
<td>Manufacturing Materials and Processes</td>
<td>3</td>
</tr>
<tr>
<td>MFAB 170</td>
<td>Basic Machine Tool Processes</td>
<td>4</td>
</tr>
<tr>
<td>INDT 155</td>
<td>Workplace Skills</td>
<td>1</td>
</tr>
</tbody>
</table>

TOTAL PROGRAM CREDIT HOURS: 15

General Basic Welding Certificate

This certificate is the recommended first step to employment in the welding field. It is 9 college credit hours of general basic knowledge in welding.

The general basic welding certificate verifies that the student can demonstrate several welding and cutting processes. It is designed for automotive students, artists, hobby welders or students interested in exploring welding as a possible career.

(4590 48.0501)

Metal Fabrication (Welding) Technology

Vocational Certificate

Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFAB 127</td>
<td>Welding Processes</td>
<td>2</td>
</tr>
<tr>
<td>MFAB 121</td>
<td>Introduction to Welding</td>
<td>4</td>
</tr>
<tr>
<td>or</td>
<td>MFAB 130</td>
<td>Gas Metal Arc Welding I</td>
</tr>
<tr>
<td>MFAB 180</td>
<td>Blueprint and Symbols Reading for Welders</td>
<td>2</td>
</tr>
<tr>
<td>or</td>
<td>MFAB 240</td>
<td>Metallurgy</td>
</tr>
<tr>
<td>INDT 155</td>
<td>Workplace Skills</td>
<td>1</td>
</tr>
</tbody>
</table>

TOTAL PROGRAM CREDIT HOURS: 9
Nursing - Registered Nurse, A.A.S.

Nursing is a rewarding and challenging career with an optimistic employment future. JCCC’s registered nurse program is fully accredited by the National League for Nursing Accrediting Commission and Kansas State Board of Nursing. It is designed with the assistance of a community advisory committee composed of men and women who work in the nursing health care fields and are aware of the requirements for a successful nursing career. Our faculty are well qualified and experienced in the practice and teaching of nursing.

Students receive clinical practice in a variety of settings, including hospitals, long-term care facilities and clinics. Experiences are offered in maternal child nursing, pediatric nursing, operating room nursing, medical-surgical nursing, mental health nursing and gerontology.

A registered nurse with an associate’s degree is a skilled health care provider who administers nursing care directly to patients and their families in a variety of settings. The job outlook is very positive. Employment of registered nurses is expected to grow faster than the average for all occupations through 2005.

(235A 51.1601)

Nursing

Associate of Applied Science Degree

Note: Kansas CNA certification is required for application to the nursing program.

Prerequisites: Prior to enrolling in NURS 124

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 122</td>
<td>Principles of Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>MATH 116</td>
<td>Intermediate Algebra or Higher*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td><strong>8</strong></td>
</tr>
</tbody>
</table>

First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 144</td>
<td>Human Anatomy and Physiology</td>
<td>5</td>
</tr>
<tr>
<td>or</td>
<td>BIOL 140</td>
<td></td>
</tr>
<tr>
<td>BIOL 225</td>
<td>Human Physiology*</td>
<td>4</td>
</tr>
<tr>
<td>PSYC 130</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>NURS 124</td>
<td>Foundations of Nursing*</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td><strong>17-20</strong></td>
</tr>
</tbody>
</table>

Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 218</td>
<td>Human Development*</td>
<td>3</td>
</tr>
<tr>
<td>NURS 126</td>
<td>Nursing Care of the Adult: Health Alterations*</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

Summer

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 121</td>
<td>Composition I*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td><strong>3</strong></td>
</tr>
</tbody>
</table>

Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 228</td>
<td>Nursing Care of the Childbearing Family*</td>
<td>5</td>
</tr>
<tr>
<td>NURS 230</td>
<td>Nursing Care of Children*</td>
<td>5</td>
</tr>
<tr>
<td>SOC 122</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>SOC 125</td>
<td></td>
</tr>
<tr>
<td>BIOL 230</td>
<td>Microbiology*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>
Fourth Semester

NURS 232  Complex Patient Care Management*.....................9  
Humanities Elective..................................3  
Health and/or Physical Education Elective...........1  
TOTAL CREDIT HOURS....................................13  
*Prerequisite/Corequisite required  

PN to RN Transition, A.A.S

The LPN to RN bridge program provides those licensed practical nurses wanting to become registered nurses the opportunity to do so. Admission to the program is based on academic criteria.

All licensed practical nurses making application must have completed required general education courses before being accepted.

Following successful completion of the summer transition courses, students are admitted to the third semester of the program. At least 10 openings are available each year. Successful completion of the third and fourth semesters of the program allows the graduate to apply to take the national licensing examination for RNs. The application deadline is Jan. 15.

(235A 51.1601)

Nursing

Associate of Applied Science Degree

Note: LPN to RN Transition
Students must successfully complete NURS 136 and NURS 228 and NURS 230 before advanced standing credits for NURS 124 and NURS 126 will be granted.

Prerequisite: Prior to enrolling in NURS 228 and NURS 230

BIOL 144  Human Anatomy and Physiology...............................5  
CHEM 122  Principles of Chemistry......................................5  
ENGL 121  Composition I*..............................................3  
PSYC 130  Introduction to Psychology.................................3  
PSYC 218  Human Development*......................................3  
  Communications Elective...........................................3  
MATH 116  Intermediate Algebra or Higher*............................3  
TOTAL CREDIT HOURS..................................................25  

Summer

NURS 136  LPN–RN Transition Course*.................................6  
Note: NURS 136 is not added into the total program hours.

TOTAL CREDIT HOURS..................................................6  

Third Semester

NURS 228  Nursing Care of the Childbearing Family*..................5  
NURS 230  Nursing Care of Children*.................................5  
SOC 122  Introduction to Sociology.................................3  
or  
SOC 125  Social Problems.............................................3  
BIOL 230  Microbiology*..............................................3  
TOTAL CREDIT HOURS..................................................16  

Fourth Semester

NURS 232  Complex Patient Care Management*.....................9  
Humanities Elective.................................................3  

Note: Total Program Hours include 18 hours APL for NURS 124/126

Practical Nursing Day Certificate

The health care industry needs informed, skilled and dependable workers to complete the care team. The licensed practical nurse assists registered nurses and physicians in caring for physically or mentally ill clients. In the long-term care setting and home health, the LPN may supervise other nursing care personnel. Practical nursing offers employment in many health care settings. Long-term care, physicians' offices, home care, hospitals and clinics provide opportunity for the practical nurse to administer care to a variety of clients. Job outlook for the Kansas City area is good, with an average starting salary of $35,152-$37,400.

Upon successful completion of the program, graduates are eligible to take the Practical Nursing Licensing exam. After completing the practical nursing program, you may continue your education in to become a registered nurse.

The program, which can be completed in 10 months, provides 1,100 hours of instruction. This includes classroom and clinical laboratory experiences in many areas of nursing. The application deadline is March 15, 2007 for the August, 2007, start date and March 15, 2008 for the August, 2008, start date. Admission to this program requires successful completion of several prerequisites.

Area Vocational School Certificate

Prerequisite for Required Courses

Kansas CNA certificate & admission to PN program
BIOL 144 Human Anatomy and Physiology.........................5
PSYC 130 Introduction to Psychology..............................3
MATH 111 Fundamentals of Mathematics*..........................3

Fall

AVPN 115 Nursing I*........................................550

Spring

AVPN 117 Nursing II*........................................550

Note: TOTAL PROGRAM CONTACT HOURS...................1100
*Prerequisite/Corequisite required

Practical Nursing Evening Weekend Certificate

The health care industry needs informed, skilled and dependable workers to complete the care team. The licensed practical nurse assists registered nurses and physicians in caring for physically or mentally ill clients. In the long-term care setting and home health, the LPN may supervise other nursing care personnel. Practical nursing offers employment in many health care settings. Long-term care, physicians' offices, home care, hospitals and clinics provide opportunity for the practical nurse to administer care to a variety of clients. Job outlook for the Kansas City area is good, with an average starting salary of $35,152-$37,400.

Upon successful completion of the program, graduates are eligible to take the Practical Nursing Licensing exam. After completing the practical nursing program, you may continue your education to become a registered nurse.
The program, which can be completed in 18 months, provides 1,100 hours of instruction. This includes classroom and clinical laboratory experiences in many areas of nursing. Classes begin in July or January depending on the 18 month cycle. Application deadlines are as follows: October 1, 2007 for January, 2008, start date and March 15, 2009 for July, 2009, start date. Admission to this program requires successful completion of several prerequisites.

Health Occupations

Area Vocational School Certificate

Prerequisites for Required Courses

Kansas CNA certificate & admission to PN program
BIOL 144 Human Anatomy and Physiology.........................5
PSYC 130 Introduction to Psychology................................3
MATH 111 Fundamentals of Mathematics*.........................3

Fall
AVPN 115 Nursing I*.........................................5

Spring
AVPN 117 Nursing II*........................................5

Note: TOTAL PROGRAM CONTACT HOURS.......................1100
*Prerequisite/Corequisite required

Professional Paraeducator Program, A.A.

The Professional Paraeducator Program is designed to recruit, educate and place well-qualified personnel who will function as effective partners to students, teachers, administrators and parents.

Associate of Arts

First Semester
ENGL 121 Composition I*........................................3
EDUC 121 Introduction to Teaching*............................3
PSYC 130 Introduction to Psychology..........................3
Humanities Elective.............................................3
Science course with Lab.....................................4-5
TOTAL CREDIT HOURS....................................16-17

Second Semester
ENGL 122 Composition II*......................................3
EDUC 220 Survey of the Exceptional Child..................3
PSYC 218 Human Development*...............................3
MATH 171 College Algebra or higher*.............................3
Social Science/Economics Elective.............................3
PSYC Elective.....................................................3
(Note: Any PSYC course will meet this requirement not already required in program.)
TOTAL CREDIT HOURS........................................18

Third Semester
EDUC 243 Issues and Skills for Paraeducators...............3
PSYC 225 Educational Psychology*............................3
Railroad Electronics, A.A.S.

The associate of applied science in railroad electronics degree program is a restricted access program for those students enrolled in the railroad electronics certificate program who wish to progress to a degree. The certificate program has been an active program on the JCCC campus since 1993, with a total enrollment to date of almost 400 students.

The certificate program consists of 33 credit hours of electronics courses, previously designated as ELEC courses, currently designated as RREL courses. The total program content is equivalent to the electronics degree program, but the delivery differs. Content is divided into courses differently. Examples tend to be railroad-related where possible, and courses are delivered in alternative format, combining distance learning (using a remote access server) and classroom presentations.

Electronics technology influences almost every aspect of modern life. Skilled electronics technicians are needed to support growth in the railroad industry. These technicians must be able to fabricate, test, install, operate and maintain highly technical systems, such as communications systems networks, medical delivery systems, computers and computer networks, and industrial process control systems. The program focuses on the underlying principles of electronic devices used extensively in railroad signaling, circuit analysis and digital electronics and will provide a broad systems view of electronics.

Students in the railroad electronics technology program will work with outstanding facilities and the latest laboratory equipment. Graduates of the program will have the opportunity for employment in today’s most challenging and exciting railroad signal career field.

No new courses are required for this program. All RREL courses are offered as closed courses for BNSF Railway, with the railroad furnishing all equipment, trainers, computers and software.

(2820 49.0299)

Railroad Operations

Associate of Applied Science Degree

First Semester

RREL 180  Introduction to Railroad Electronics*...............1
<table>
<thead>
<tr>
<th>First Semester</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RREL 181 Circuit Analysis DC/AC*</td>
<td>6</td>
</tr>
<tr>
<td>ENGL 121 Composition I*</td>
<td>3</td>
</tr>
<tr>
<td>Science and/or Mathematics Elective*</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

**Second Semester**

| RREL 182 Semiconductor Devices and Circuits*      | 6       |
| RREL 183 Digital Techniques*                       | 6       |
| Humanities Elective                                | 3       |
| **TOTAL CREDIT HOURS**                             | **15**  |

**Third Semester**

| RREL 284 Electronic Communications*                | 6       |
| Social Science/Economics Elective                 | 3       |
| Technical Electives                               | 6       |
| **TOTAL CREDIT HOURS**                             | **15**  |

**Fourth Semester**

| RREL 285 Microprocessor Techniques*                | 6       |
| RREL 286 Applied Microprocessors*                  | 2       |
| Health and/or Physical Education Elective          | 1       |
| Communications Elective                            | 3       |
| Technical Electives                               | 6       |
| **TOTAL CREDIT HOURS**                             | **18**  |
| **TOTAL PROGRAM CREDIT HOURS**                     | **64**  |

Note: MATH 111 and MATH 115 will not meet math requirements.

**Technical Electives**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTR 120</td>
<td>Fundamentals of Astronomy</td>
<td>3</td>
</tr>
<tr>
<td>AUTO 121</td>
<td>Small Engine Service</td>
<td>3</td>
</tr>
<tr>
<td>AUTO 122</td>
<td>Introduction to Automotive Glass</td>
<td>3</td>
</tr>
<tr>
<td>AUTO 125</td>
<td>Introduction to Automotive Shop Practices</td>
<td>3</td>
</tr>
<tr>
<td>BOT 101</td>
<td>Computerized Keyboarding</td>
<td>1</td>
</tr>
<tr>
<td>BOT 103</td>
<td>Business English</td>
<td>3</td>
</tr>
<tr>
<td>BOT 105</td>
<td>Keyboarding and Formatting I</td>
<td>3</td>
</tr>
<tr>
<td>BOT 115</td>
<td>Electronic Calculators</td>
<td>1</td>
</tr>
<tr>
<td>BOT 150</td>
<td>Records Management</td>
<td>3</td>
</tr>
<tr>
<td>BOT 175</td>
<td>Conflict in the Workplace</td>
<td>1</td>
</tr>
<tr>
<td>CET 105</td>
<td>Construction Methods</td>
<td>3</td>
</tr>
<tr>
<td>CET 120</td>
<td>Engineered Plumbing Systems I</td>
<td>3</td>
</tr>
<tr>
<td>CET 122</td>
<td>Engineered Plumbing Systems II</td>
<td>3</td>
</tr>
<tr>
<td>CET 129</td>
<td>Construction Management</td>
<td>3</td>
</tr>
<tr>
<td>CFCA 105</td>
<td>Introduction to Personal Computers: Windows</td>
<td>1</td>
</tr>
<tr>
<td>CFCA 106</td>
<td>Introduction to Personal Computers: MacIntosh</td>
<td>1</td>
</tr>
<tr>
<td>CFCA 128</td>
<td>PC Applications: Office 2003</td>
<td>3</td>
</tr>
<tr>
<td>CIS 124</td>
<td>Introduction to Computer Concepts and Applications</td>
<td>3</td>
</tr>
<tr>
<td>CIS 134</td>
<td>Programming Fundamentals</td>
<td>4</td>
</tr>
<tr>
<td>DRAF 120</td>
<td>Introduction to Drafting</td>
<td>2</td>
</tr>
<tr>
<td>DRAF 123</td>
<td>Interpreting Machine Drawings*</td>
<td>2</td>
</tr>
<tr>
<td>DRAF 129</td>
<td>Interpreting Architectural Drawings</td>
<td>2</td>
</tr>
<tr>
<td>DRAF 132</td>
<td>Introduction to AutoCAD LT</td>
<td>3</td>
</tr>
<tr>
<td>DRAF 140</td>
<td>Topics in CAD I</td>
<td>2</td>
</tr>
<tr>
<td>DRAF 238</td>
<td>Architectural Drafting*</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 120</td>
<td>Introduction to Electronics</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 126</td>
<td>Microcomputer A+ Preparation</td>
<td>4</td>
</tr>
<tr>
<td>ELEC 125</td>
<td>Digital Electronics I</td>
<td>4</td>
</tr>
<tr>
<td>ELEC 131</td>
<td>Introduction to Sensors and Actuators</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 133</td>
<td>Programmable Controllers</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 150</td>
<td>Introduction to Telecommunications</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 185</td>
<td>LAN Cabling and Installation</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 121</td>
<td>Engineering Orientation</td>
<td>2</td>
</tr>
<tr>
<td>GEOS 130</td>
<td>General Geology</td>
<td>5</td>
</tr>
</tbody>
</table>
Railroad Electronics Certificate

This certificate is a comprehensive program of study that covers the fundamental electronic principles used by railroad signal control systems technicians. Upon successful completion of this program, the student should be able to apply basic digital and analog theory required in the maintenance of right-of-way crossing and train control systems.

Enrollment in the program is subject to the approval of the BNSF training director and JCCC division administrator.

(4540 49.0299)

Railroad Operations

Vocational Certificate

RREL 180 Introduction to Railroad Electronics*.........................1
RREL 181 Circuit Analysis DC/AC*..........................................6
RREL 182 Semiconductor Devices and Circuits*..........................6
RREL 183 Digital Techniques*................................................6
RREL 284 Electronic Communications*.....................................6
RREL 285 Microprocessor Techniques*.....................................6
RREL 286 Applied Microprocessors*...Applied Microprocessors*.....2
TOTAL PROGRAM CREDIT HOURS............................................33

*Prerequisite/Corequisite required

Railroad Carman Welding Certificate

JCCC's railroad industrial technology certificate program is OPEN ONLY TO BNSF RAILWAY EMPLOYEES.

Enrollment is subject to the approval of the BNSF Railway training director and JCCC division administrator.

The railroad carman welding vocational certificate is designed to provide students with training in welding and cutting operations used by carmen employed in the railroad industry. Students completing the program should be able to demonstrate safe operating procedures for welding and cutting applications and perform skill competencies involving oxyacetylene cutting, shielded metal arc welding, gas metal arc welding and flux cored arc welding. Students should also be able to complete qualification tests according to industry standards.

(Major Code 4560; CIP Code 49.0299)
Railroad Machinist Welding Certificate

JCCC’s railroad industrial technology certificate program is open only to BNSF Railway employees.

Enrollment is subject to the approval of the BNSF Railway training director and JCCC division administrator.

The railroad machinist welding vocational certificate is designed to provide students with training in welding and cutting operations used by machinists employed in the railroad industry. Students completing the program should be able to demonstrate safe operating procedures for welding and cutting applications and perform skill competencies involving complete qualification tests according to industry standards.

(4570 49.0299)

Railroad Welder Training Program

Vocational Certificate

RRIT 127  Welding Processes*.................................2
RRIT 140  Structural Quality SMAW*..........................3
RRIT 141  Structural Quality GMAW*..........................3
TOTAL PROGRAM CREDIT HOURS...............................8
*Prerequisite/Corequisite required

Railroad Structural Welding Certificate

JCCC’s railroad industrial technology certificate program is open only to BNSF Railway employees.

Enrollment is subject to the approval of the BNSF Railway training director and JCCC division administrator.

This certificate is designed to address the training needs for railway structural welders. Upon successful completion of this program, you should be able to demonstrate safe operating procedures for welding applications, perform skill competencies involving a variety of processes and positions, pass code welding requirements according to AWS D1.5, and perform welding operations as needed.

(4530 49.0299)

Railroad Welder Training Program

Vocational Certificate

RRIT 122  Elements of Welding*.................................3
RRIT 123  Basic Welding*..................................3
RRIT 137  Structural Welding SMAW*........................3
RRIT 138  Structural Welding FCAW*........................3
RRIT 139  Structural Welding Pipe*........................3
TOTAL CREDIT HOURS........................................15
*Prerequisite/Corequisite required

Railroad Track Welding Certificate
Enrollment is subject to the approval of the BNSF Railway training director and JCCC division administrator.

This certificate is designed to provide a concentrated program for industry-specific training in track maintenance and repairs. Upon successful completion of this program, you should have the ability to safely operate track welding equipment, perform basic and advanced welding operations, and complete specialized procedures as needed to perform the job of railway track welder.

(4520 49.0299)

Railroad Welder Training Program

Vocational Certificate

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RRIT 122</td>
<td>Elements of Welding*</td>
<td>3</td>
</tr>
<tr>
<td>RRIT 123</td>
<td>Basic Welding*</td>
<td>3</td>
</tr>
<tr>
<td>RRIT 132</td>
<td>Thermite Welding*</td>
<td>3</td>
</tr>
<tr>
<td>RRIT 136</td>
<td>Rail and Switch Point Repair Welding*</td>
<td>3</td>
</tr>
<tr>
<td>RRIT 145</td>
<td>Frog Welding*</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL</td>
<td>CREDIT HOURS</td>
<td>15</td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required

Railroad Operations - Conductor Option, A.A.S.

Conductors are responsible for supervising over-the-road operation of freight trains and are in demand throughout the railroad industry. They may choose career paths leading to locomotive engineer service or railroad management. The final phase of this program consists of six weeks of full-time training provided in cooperation with the National Academy of Railroad Sciences on the campus of JCCC.

Note: Metropolitan Community College students should seek specific counsel from the JCCC program personnel for the appropriate course plan and numbers. Missouri students should refer to Cooperative Program Information.

(2810 49.0299)

Railroad Operations

Associate of Applied Science Degree

First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPCA 105</td>
<td>Introduction to Personal Computers: Windows</td>
<td>1</td>
</tr>
<tr>
<td>CPCA 108</td>
<td>Word Processing I: MS Word*</td>
<td>1</td>
</tr>
<tr>
<td>CPCA 110</td>
<td>Spreadsheets I: MS Excel*</td>
<td>1</td>
</tr>
<tr>
<td>ENGL 121</td>
<td>Composition I*</td>
<td>3</td>
</tr>
<tr>
<td>MATH 133</td>
<td>Technical Mathematics I*</td>
<td>4</td>
</tr>
<tr>
<td>PHIL 124</td>
<td>Logic and Critical Thinking</td>
<td>3</td>
</tr>
<tr>
<td>RRT 120</td>
<td>History of Railroading</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL</td>
<td>CREDIT HOURS</td>
<td>16</td>
</tr>
</tbody>
</table>

Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 123</td>
<td>Technical Writing I*</td>
<td>3</td>
</tr>
<tr>
<td>MATH 134</td>
<td>Technical Mathematics II*</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 133</td>
<td>Applied Physics*</td>
<td>5</td>
</tr>
<tr>
<td>RRT 121</td>
<td>Railroad Technical Careers</td>
<td>3</td>
</tr>
<tr>
<td>Health and/or Physical Education Elective</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>CREDIT HOURS</td>
<td>17</td>
</tr>
</tbody>
</table>

Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 121</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>ECON 132</td>
<td>Survey of Economics</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECON 230</td>
<td>Economics I</td>
<td>3</td>
</tr>
</tbody>
</table>
Fourth Semester

RRTC 123 Introduction to Conductor Service*...................4
RRTC 175 Conductor Mechanical Operation*.....................2
RRTC 261 Conductor Service*................................2
RRTC 263 General Code of Operating Rules*....................2
RRTC 267 Conductor Field Application*............................2
TOTAL CREDIT HOURS..................................16

*Prerequisite/Corequisite required

Railroad Conductor Certificate

The 16-credit hour railroad conductor certificate program prepares students for an exciting and well-paying career as a railroad conductor. The more than 500 companies that make up the United States railroad industry provide the country’s freight and passenger transportation service on a network of some 300,000 route-miles of track. Railroads employ a substantial workforce.

Railroad Operations

Vocational Certificate

Required Courses

RRTC 123 Introduction to Conductor Service*...................4
RRTC 175 Conductor Mechanical Operation*.....................2
RRTC 261 Conductor Service*................................2
RRTC 263 General Code of Operating Rules*....................2
RRTC 267 Conductor Field Application*............................2
TOTAL PROGRAM CREDIT HOURS..........................16

Railroad Operations - General Option, A.A.S.

JCCC’s associate’s degree program in railroad operations can prepare you for an exciting and well-paying career. The more than 500 companies that make up the U.S. railroad industry provide the country’s freight and passenger transportation service on a network of some 300,000 route-miles of track. Railroads employ a substantial workforce to service, maintain and manage this extensive transportation network. JCCC’s program offers five options. The general option requires 66 credit hours; the conductor option 65 credit hours; the mechanical option 65 credit hours and the maintenance of way welding option 65 credit hours.

In general, this option is designed to provide the student with general knowledge and skills for entry-level employment in the railroad industry. The student is introduced to the history of railroading and the various railroad crafts. Railroad operations, safety, environment and quality also are covered. The student will choose from a list of business and technical electives in order to provide a basis for possible employment and further post-employment training.

Railroad Operations

Associate of Applied Science Degree

First Semester

CPCA 105 Introduction to Personal Computers: Windows...........1
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPCA 108</td>
<td>Word Processing I: MS Word*</td>
<td>1</td>
</tr>
<tr>
<td>CPCA 110</td>
<td>Spreadsheets I: MS Excel*</td>
<td>1</td>
</tr>
<tr>
<td>ENGL 121</td>
<td>Composition I*</td>
<td>3</td>
</tr>
<tr>
<td>MATH 133</td>
<td>Technical Mathematics I*</td>
<td>4</td>
</tr>
<tr>
<td>PHIL 124</td>
<td>Logic and Critical Thinking</td>
<td>3</td>
</tr>
<tr>
<td>RRT 120</td>
<td>History of Railroading</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL CREDIT HOURS</td>
<td></td>
<td>16</td>
</tr>
</tbody>
</table>

**Second Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 123</td>
<td>Technical Writing I*</td>
<td>3</td>
</tr>
<tr>
<td>MATH 134</td>
<td>Technical Mathematics II*</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 133</td>
<td>Applied Physics*</td>
<td>5</td>
</tr>
<tr>
<td>RRT 121</td>
<td>Railroad Technical Careers</td>
<td>3</td>
</tr>
<tr>
<td>Health and/or Physical Education Elective</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>TOTAL CREDIT HOURS</td>
<td></td>
<td>17</td>
</tr>
</tbody>
</table>

**Third Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 121</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>ECON 132</td>
<td>Survey of Economics</td>
<td>3</td>
</tr>
<tr>
<td>or ECON 230</td>
<td>Economics I.</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 138</td>
<td>Business Ethics</td>
<td>1</td>
</tr>
<tr>
<td>RRT 150</td>
<td>Railroad Operations</td>
<td>3</td>
</tr>
<tr>
<td>RRT 165</td>
<td>Railroad Safety, Quality and Environment</td>
<td>3</td>
</tr>
<tr>
<td>SPD 125</td>
<td>Personal Communication</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL CREDIT HOURS</td>
<td></td>
<td>16</td>
</tr>
</tbody>
</table>

**Fourth Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDT 140</td>
<td>Quality Improvement Using SPC</td>
<td>2</td>
</tr>
<tr>
<td>Business/Related Electives</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Technical/Related Electives</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>TOTAL CREDIT HOURS</td>
<td></td>
<td>17</td>
</tr>
<tr>
<td>TOTAL PROGRAM CREDIT HOURS</td>
<td>66</td>
<td></td>
</tr>
</tbody>
</table>

**Business/Related Electives**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 121</td>
<td>Accounting I.</td>
<td>3</td>
</tr>
<tr>
<td>BUS 123</td>
<td>Personal Finance</td>
<td>3</td>
</tr>
<tr>
<td>BUS 140</td>
<td>Principles of Supervision</td>
<td>3</td>
</tr>
<tr>
<td>BUS 141</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BUS 225</td>
<td>Human Relations</td>
<td>3</td>
</tr>
<tr>
<td>BUS 230</td>
<td>Marketing</td>
<td>3</td>
</tr>
<tr>
<td>BUS 243</td>
<td>Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>BUS 261</td>
<td>Business Law I.</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 210</td>
<td>Technical Writing II*</td>
<td>3</td>
</tr>
<tr>
<td>BOT 101</td>
<td>Computerized Keyboarding</td>
<td>1</td>
</tr>
</tbody>
</table>

**Technical/Related Electives**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO 125</td>
<td>Introduction to Automotive Shop Practices</td>
<td>3</td>
</tr>
<tr>
<td>AUTO 165</td>
<td>Automotive Engine Repair*</td>
<td>4</td>
</tr>
<tr>
<td>CET 105</td>
<td>Construction Methods</td>
<td>3</td>
</tr>
<tr>
<td>CET 127</td>
<td>Construction Estimating*</td>
<td>3</td>
</tr>
<tr>
<td>CET 129</td>
<td>Construction Management</td>
<td>3</td>
</tr>
<tr>
<td>CPCA 138</td>
<td>Windows for Microcomputers*</td>
<td>1</td>
</tr>
<tr>
<td>DRAF 123</td>
<td>Interpreting Machine Drawings*</td>
<td>2</td>
</tr>
<tr>
<td>DRAF 129</td>
<td>Interpreting Architectural Drawings</td>
<td>2</td>
</tr>
<tr>
<td>ELEC 120</td>
<td>Introduction to Electronics</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 126</td>
<td>Microcomputer A+ Preparation</td>
<td>4</td>
</tr>
<tr>
<td>ELEC 133</td>
<td>Programmable Controllers</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 150</td>
<td>Introduction to Telecommunications</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 180</td>
<td>Engineering Land Surveying I*</td>
<td>3</td>
</tr>
<tr>
<td>GEOS 140</td>
<td>Physical Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEOS 141</td>
<td>Physical Geography Lab*</td>
<td>2</td>
</tr>
<tr>
<td>HVAC 123</td>
<td>Electromechanical Systems</td>
<td>4</td>
</tr>
</tbody>
</table>
Railroad Operations - Mechanical Option, A.A.S.

Mechanical services include a variety of responsibilities for the maintenance, service and repair of locomotives, freight cars and other rolling stock. Skills include diesel engine repair, electrical and electronic system repair, freight car repair and inspection, and welding processes. The final phase of the program consists of training provided in cooperation with the National Academy of Railroad Sciences. Selective admission to the program is based upon various criteria. Interested students should meet with a JCCC counselor as early as possible.

(2840 49.0299)

Railroad Operations

Associate of Applied Science Degree

First Semester

CPCA 105  Introduction to Personal Computers: Windows........1
CPCA 108  Word Processing I: MS Word*..........................1
CPCA 110  Spreadsheets I: MS Excel*............................1
ENGL 121  Composition I*.......................................3
MATH 133  Technical Mathematics I*.............................4
PHIL 124  Logic and Critical Thinking..........................3
RRT  120  History of Railroading..................................3
TOTAL CREDIT HOURS..................................16

Second Semester

ENGL 123  Technical Writing I*.................................3
MATH 134  Technical Mathematics II*............................5
PHYS 133  Applied Physics*......................................5
RRT  121  Railroad Technical Careers...........................3
Health and/or Physical Education Elective............1
TOTAL CREDIT HOURS..................................17

Third Semester

BUS  121  Introduction to Business.............................3
ECON 132  Survey of Economics..................................3
or
ECON 230  Economics I.........................................3
PHIL  138  Business Ethics......................................1
RRT  150  Railroad Operations..................................3
RRT  165  Railroad Safety, Quality and Environment........3
SPD  125  Personal Communication...............................3
TOTAL CREDIT HOURS..................................16

Fourth Semester

RRIT 122  Elements of Welding*.................................3
or
MFAB 121  Introduction to Welding..............................4
RRIT 123  Basic Welding*......................................3
RRTM 124  Orientation to the Railroad Mechanical Craft*........2
RRTM 170  Railroad Mechanical Safety and Health*..............2
RRTM 251  Locomotive Diesel Engine Fundamentals*............2
RRTM 253  Freight Car Fundamentals*............................2
RRTM 254  Basic Locomotive Electricity and Electronics*.....2
TOTAL CREDIT HOURS..................................16
Railroad Operations - Welding Option, A.A.S.

Maintenance of way welding involves maintenance and repair of rail and track components. The final phase of this program consists of course work provided in cooperation with the National Academy of Railroad Sciences. Selective admission to the program is based on various criteria. Interested students should meet with a JCCC counselor as early as possible.

(2850 49.0299)

Associate of Applied Science Degree

First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPCA 105</td>
<td>Introduction to Personal Computers: Windows</td>
<td>1</td>
</tr>
<tr>
<td>ENGL 121</td>
<td>Composition I*</td>
<td>3</td>
</tr>
<tr>
<td>MATH 133</td>
<td>Technical Mathematics I*</td>
<td>4</td>
</tr>
<tr>
<td>PHIL 124</td>
<td>Logic and Critical Thinking</td>
<td>3</td>
</tr>
<tr>
<td>RRT 120</td>
<td>History of Railroading</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 123</td>
<td>Technical Writing I*</td>
<td>3</td>
</tr>
<tr>
<td>INDT 125</td>
<td>Industrial Safety</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 133</td>
<td>Applied Physics*</td>
<td>5</td>
</tr>
<tr>
<td>RRT 121</td>
<td>Railroad Technical Careers</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Health and/or Physical Education Elective</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 132</td>
<td>Survey of Economics</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECON 230</td>
<td>Economics I.</td>
<td>3</td>
</tr>
<tr>
<td>RRT 150</td>
<td>Railroad Operations</td>
<td>3</td>
</tr>
<tr>
<td>RRT 165</td>
<td>Railroad Safety, Quality and Environment</td>
<td>3</td>
</tr>
<tr>
<td>SPD 125</td>
<td>Personal Communication</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

Fourth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>RRT 122</td>
<td>Elements of Welding*</td>
<td>3</td>
</tr>
<tr>
<td>RRT 123</td>
<td>Basic Welding*</td>
<td>3</td>
</tr>
<tr>
<td>RRT 132</td>
<td>Thermit Welding*</td>
<td>3</td>
</tr>
<tr>
<td>RRT 136</td>
<td>Rail and Switch Point Repair Welding*</td>
<td>3</td>
</tr>
<tr>
<td>RRT 145</td>
<td>Frog Welding*</td>
<td>3</td>
</tr>
<tr>
<td>RRT 271</td>
<td>Railroad Welding Internship*</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td><strong>21</strong></td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL PROGRAM CREDIT HOURS</strong></td>
<td><strong>65</strong></td>
</tr>
</tbody>
</table>

*Prerequisite/Corequisite required

Technical/Related Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO 125</td>
<td>Introduction to Automotive Shop Practices</td>
<td>3</td>
</tr>
<tr>
<td>AUTO 165</td>
<td>Automotive Engine Repair*</td>
<td>4</td>
</tr>
<tr>
<td>CET 105</td>
<td>Construction Methods</td>
<td>3</td>
</tr>
<tr>
<td>CET 127</td>
<td>Construction Estimating*</td>
<td>3</td>
</tr>
<tr>
<td>CET 129</td>
<td>Construction Management</td>
<td>3</td>
</tr>
<tr>
<td>CPC 105</td>
<td>Windows for Microcomputers*</td>
<td>1</td>
</tr>
<tr>
<td>DRAF 123</td>
<td>Interpreting Machine Drawings*</td>
<td>2</td>
</tr>
<tr>
<td>DRAF 129</td>
<td>Interpreting Architectural Drawings</td>
<td>2</td>
</tr>
</tbody>
</table>
Respiratory Care, A.A.S.

The respiratory therapist is involved in a variety of lifesaving and life-supporting situations. Respiratory therapists treat patients ranging in age from newborns to senior citizens in the prevention, treatment, management and rehabilitation of lung problems. Employment is typically in hospitals but is available in several other health delivery venues. The health care needs of an aging population will play a role in the future of respiratory care.

JCCC’s associate of applied science program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) in collaboration with the Committee on Accreditation for Respiratory Care (CoARC). Graduates are eligible to take the National Board for Respiratory Care examinations for both the certified (CRT) and registered (RRT) respiratory therapist.

This is a selective admission program with limited enrollment. Prospective students are encouraged to visit the program Web site at http://www.jccc.net/home/depts.php/001256 or to contact JCCC program personnel for additional information and application materials at 913-469-2583.

Note: Metropolitan Community College students should seek specific counsel from the JCCC program personnel for the appropriate course plan and numbers. Missouri students should refer to Cooperative Program Information. Specifically the reverse cooperative section.

(237A 51.0908)

Associate of Applied Science Degree

Summer

Social Science/Economics Elective.........................3
ENGL 121 Composition I*^.....................................3
TOTAL CREDIT HOURS............................................6

First Semester

BIOL 140 Human Anatomy^....................................4
MATH 116 Intermediate Algebra*^............................3
Note: MATH 116 or MATH 171 or higher

CHEM 122 Principles of Chemistry^..........................5
Humanities/Art Elective.........................................3
TOTAL CREDIT HOURS...........................................15

Second Semester

BIOL 225 Human Physiology^*.................................4
BIOL 230 Microbiology^*.........................................3
BIOL 231 Microbiology Lab....................................2
Note: BIOL 231 is strongly suggested.

EMS 121 CPR I - Basic Life Support for Healthcare Provider...1
HC 101 Introduction to Health Care Delivery**.............3
Communications Elective.....................................3
TOTAL CREDIT HOURS............................................11-16
Note: ^Indicates prerequisite courses that must be completed before the clinic-year. Electives not completed by the clinic-year will delay credentialing eligibility.

Note: **HC 101 is not a required course for the degree but is strongly encouraged. See the program application packet for details on how this course may be used to meet clinic-year eligibility requirements.

Summer (clinic-year)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RC 125</td>
<td>Beginning Principles of Respiratory Care*</td>
<td>4</td>
</tr>
<tr>
<td>RC 130</td>
<td>Respiratory Care Equipment*</td>
<td>4</td>
</tr>
<tr>
<td>RC 135</td>
<td>Cardiopulmonary Medicine I*</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>(Current BCLS for Health Care Provider required)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TOTAL CREDIT HOURS</td>
<td>9</td>
</tr>
</tbody>
</table>

Third Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RC 220</td>
<td>Cardiopulmonary Physiology*</td>
<td>2</td>
</tr>
<tr>
<td>RC 230</td>
<td>Clinical Topics and Procedures I*</td>
<td>4</td>
</tr>
<tr>
<td>RC 235</td>
<td>Cardiopulmonary Medicine II*</td>
<td>2</td>
</tr>
<tr>
<td>RC 240</td>
<td>Cardiopulmonary Pharmacology*</td>
<td>2</td>
</tr>
<tr>
<td>RC 271</td>
<td>Clinical Practice I*</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>TOTAL CREDIT HOURS</td>
<td>16</td>
</tr>
</tbody>
</table>

Fourth Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RC 231</td>
<td>Clinical Topics and Procedures II*</td>
<td>4</td>
</tr>
<tr>
<td>RC 233</td>
<td>Respiratory Care of Children*</td>
<td>2</td>
</tr>
<tr>
<td>RC 236</td>
<td>Cardiopulmonary Medicine III*</td>
<td>2</td>
</tr>
<tr>
<td>RC 272</td>
<td>Clinical Practice II*</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>TOTAL CREDIT HOURS</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>TOTAL PROGRAM CREDIT HOURS</td>
<td>71-73</td>
</tr>
<tr>
<td></td>
<td>WITH HC ELECTIVE COURSE</td>
<td>74-76</td>
</tr>
</tbody>
</table>

Veterinary Technology, A.A.S.

A background in veterinary technology provides opportunities for employment with veterinarians, assisting them in providing professional services and performing veterinary-related tasks. Opportunities also exist with pharmaceutical companies in technical services or laboratory animal care.

The program features supervised intensive clinical study under the direction of a licensed veterinarian and is fully accredited by the American Veterinary Medical Association. Students study sanitation, animal care, preparation of animals for surgery and anesthetic management as well as laboratory techniques and radiology.

JCCC’s veterinary technology program is offered to Johnson County residents in cooperation with MCC-Maple Woods Community College. You must be accepted as a student at JCCC and accepted into the program at MCC-Maple Woods Community College. Consult with a JCCC counselor for more information.

Program courses and credit hours are subject to change because of requirement changes at the degree-granting institution. Contact MCC-Maple Woods Community College at 816-437-3235 or www.mcckc.edu for an application packet, which includes deadlines, program prerequisites, admission requirements and performance standards.

For enrollment information regarding this cooperative program; go to http://www.jccc.net/cooperative

Associate of Applied Science Degree

Degree granted by Metropolitan Community College
General Education Requirements—must be taken at JCCC

ENGL 121 Composition I*...............................................3
SPD 121 Public Speaking..................................................3
General Education Electives..............................................3-5
Note: ENGL 122—Composition II is highly recommended.

American Institutions

HIST 140 U.S. History to 1877........................................3
or
HIST 141 U.S. History Since 1877.....................................3
or
POLS 122 Political Science..............................................3
or
POLS 124 American National Government..........................3
or
POLS 126 State and Local Government..............................3

Specific Program Requirements—must be taken at JCCC

BIOL 127 General Zoology..............................................5
BIOL 230 Microbiology*..................................................3
BIOL 231 Microbiology Lab*............................................2
CHEM 122 Principles of Chemistry................................5
CPCA 128 PC Applications: Office 2003...............................3

Specific Program Requirements—taken at MCC-Maplewoods

KSS 300 Affiliate Social Science.................................1-3
KSAH 108 Clinical Math...............................................1
KSAH 100 Introduction to Veterinary Technology..................2
KSAH 101 Principles of Animal Science I.........................3
KSAH 110 Principles of Animal Science II*........................3
KSAH 111 Sanitation and Animal Care...............................2
KSAH 200 Veterinary Hospital Technology I*......................3
KSAH 201 Clinical Pathology Techniques I..........................4
KSAH 202 Veterinary Anatomy*.....................................5
KSAH 203 Laboratory Animal Technology*.........................2
KSAH 209 Equine Medicine and Management*......................3
KSAH 210 Veterinary Hospital Technology II*.....................3
KSAH 211 Clinical Pathology Techniques II*......................5
KSAH 212 Large Animal Technology*.................................4
KSAH 213 Radiology and Electronic Procedures..................2
KSAH 214 Veterinary Technician Internship*.......................6
TOTAL PROGRAM CREDIT HOURS...........................................79-83
*Prerequisite/Corequisite required

General Education Electives

ART 180 See ARTH 180 for Art History: Ancient to Renaissance...3
ART 182 Art History: Renaissance to Modern.....................3
ART 184 Art History: Twentieth Century...........................3
ANTH 125 Cultural Anthropology..................................3
ANTH 126 Physical Anthropology..................................3
ANTH 130 World Cultures.............................................3
ECON 132 Survey of Economics..................................3
ECON 230 Economics I...............................................3
ECON 231 Economics II..............................................3
ENGL 130 Introduction to Literature*..............................3
ENGL 230 Introduction to Fiction*..................................3
FL 130 Elementary Spanish I........................................5
FL 131 Elementary Spanish II*.......................................5
FL 140 Elementary French I...........................................5
FL 141 Elementary French II*........................................5
FL 180 Elementary American Sign Language I....................3
FL 181 Elementary American Sign Language II*..................3
HIST 125 Western Civilization: Readings and Discussion I.....3
Credit Course Descriptions

The following course offerings at JCCC are listed alphabetically by subject area. Clicking on the subject in which you are interested will give you a list of all courses that fall under that subject and a course description (including credit hour value) for each of those courses. If you then click on a particular course (ANTH 125, for example), you will be directed to a copy of the course outline, which includes the objectives and competencies covered in the course.

- A -

Academic Achievement Center (AAC)
Accounting (ACCT)
Administration of Justice (ADMJ)
Animation (ANI)
Anthropology (ANTH)
Architecture (ARCH)
Art (ART)
Astronomy (ASTR)
Automotive Technology (AUTO)

- B -

Biology (BIOL)
Biotechnology (BIOT)
Business (BUS)
Business Logistics Management (KSCL)
Business Office Technology (BOT)

- C -

Chemistry (CHEM)
Civil Engineering Technology (CET)
Computer Desktop Publishing (CDTP)
Computer Forensics (CFOR)
Computer Information Systems (CIS)
Computer Personal Computer App (CPCA)
Computer Science (CS)
Computer Web (CWEB)
Cosmetology (AVCO)
- D -
Dental Hygiene (DHYG)
Drafting/CAD/AutoCAD (DRAF)

- E -
Economics (ECON)
Education and Early Childhood (EDUC)
Electrical Technology (ELTE)
Electronics (ELEC)
Emergency Medical Science/MICT (EMS)
Engineering (ENGR)
English (ENGL)
English for Academic Purposes (EAP)
Entrepreneurship (ENTR)

- F -
Fashion Merchandising/Design (FASH)
Fire Services Administration (FIRE)
Foreign Language (FL)

- G -
Game Development (GAME)
Geographic Information Systems (KEOG)
Geoscience (GEOS)
Graphic Design (GDES)

- H -
Health Care (HC)
Health Care Interpreting (HCI)
Health Information Technology (KMRT)
Health Occupations (AVHO)
Heating, Vent., Air Conditioning (HVAC)
History (HIST)
Home Economics (HMEC)
Honors Program (HON)
Horticulture (HORT)
Hospitality Management (HMGT)
Hospitality Mgt Pastry Baking (HMPB)
Humanities (HUM)

- I -
Industrial Technology (INDT)
Information Technology (IT)
Interactive Media (CIM)
Interior Design (ITMD)
Interpreter Training (INTR)
Journalism/Media Communication (JOUR)

Land Surveying (KSRV)
Leadership (LEAD)
Learning Communities (LCOM)
Learning Strategies (LS)
Legal Studies (LAW)
Library (LIBR)

Marketing Management (MKT)
Mathematics (MATH)
Metal Fabrication and Welding (MFAB)
Music (MUS)

Nursing (NURS)

Occupational Therapy Assistant (KOT)

Philosophy (PHIL)
Photography (PHOT)
Physical Ed, Health & Rec (HPER)
Physical Science (PSCI)
Physical Therapist Assistant (KPT)
Physics (PHYS)
Political Science (POLS)
Power Plant Technology (PPT)
Practical Nursing (AVPN)
Psychology (PSYC)

Radiologic Technology (KRAD)
Railroad Conductor (RRTC)
Railroad Dispatcher (RRTD)
Railroad Electronics (RREL)
Railroad Industrial Technology (RRIT)
Railroad Maintenance of Way (RRMW)
Railroad Operations (RRT)
Railroad Operations-Mechanical (RRTM)
Railroad Work Equipment (RRWE)
Reading (RDG)
Academic Achievement Center (AAC)

**AAC 100**
*Study Skills (1 CR)*
This self-instructional course is designed to improve students' ability to study efficiently. Based on the results of a study skills survey administered during the student's initial visit to the center, an individualized program is established. Using instructional material provided by the A.A.C., students will master a variety of concepts, including time management, goal setting, textbook reading, note taking from textbook and from lecture, stress management, test taking and using college resources. An Academic Achievement Center instructor is available to work with the student to establish specific instructional goals, administer tests, and provide individualized instruction as it is needed to complete the student's program. This course does not fulfill degree requirements.

**Associated Costs:** In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $2 to 5.

**AAC 101**
*Study Skills Mini-Course (1 CR)*
This class is designed to improve students' ability to study efficiently. The focus is an array of skills the college student needs, i.e., test-taking skills and note-taking skills, using a textbook, critical reading and memory recall, and effective listening and classroom strategies. Also covered are services the college offers to facilitate the learning experience for the college student, i.e., the Writing Center, the Math Resource Center, the Academic Achievement Center, the Student Success Center and the Billington Library. The format includes reading, discussion and application activities. This course does not fulfill degree requirements.

**Associated Costs:** In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $2 to 5.

**AAC 102**
*Basic Spelling (3 CR)*
This self-instructional course is for students who wish to improve their spelling ability but who have not been successful in the traditional spelling program. This course provides a highly structured approach to spelling improvement through mastery of morphographs (units of meaning) and guidelines for combining morphographs. A limited number of spelling rules are taught in the course. This course is ideal for students for whom English is a second language. An Academic Achievement Center instructor is available to work with students to establish specific goals, administer tests, and provide individualized instruction as needed to complete the students' program. This course does not fulfill degree requirements.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $2 to 5.

AAC 103
Advanced Spelling (1 CR)
This self-instructional course is for students who need to learn or review the basic spelling concepts and to improve their level of spelling mastery. Based on the results of a pretest administered during the student’s initial visit, an individualized program is established. Using instructional material provided by the AAC, students will master a variety of concepts, including the final-e rule, the doubling rule, the y-to-i rule, forming the plurals and using possessives. In addition, students will monitor misspellings that occur in their own writing and will master the correct spelling of those words. A post-test will be administered at the end of the program to measure progress. An Academic Achievement Center instructor is available to work with students to establish specific instructional goals, administer tests and provide individualized instruction as needed to complete the students’ program. This course does not fulfill degree requirements.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $2 to 5.

AAC 104
Reading Comprehension (1 CR)
This self-instructional course is designed for students who wish to improve their understanding of written language. A pretest is administered to determine a baseline reading comprehension level. An individualized program of study will be developed for each student, which includes both instructional and practice material provided by the A.A.C. Textbooks, computer software and handouts are some of the materials used in this course. This course does not fulfill degree requirements. Students learn techniques for increasing reading comprehension, which include previewing, questioning, careful reading with note taking, reciting and reviewing. An Academic Achievement Center instructor is available to work with students to establish specific goals, administer tests and provide individualized instruction as needed to complete the student's program. This course does not fulfill degree requirements.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $2 to 5.

AAC 105
Reading Rate (1 CR)
This self-instructional course is designed for students who demonstrate strong comprehension skills and wish to improve the rate at which they process written language. Students learn techniques for increasing reading rate and for improving skimming and scanning levels. A pretest will be administered to determine a baseline reading efficiency rate. An individualized program of study will be developed for each student, which includes both instructional and practice material provided by the A.A.C. Textbooks, computer software and handouts are some of the materials used in this course. An Academic Achievement Center instructor is available to work with students to establish specific instructional goals, administer tests and provide individualized instruction as needed to complete each student's program. This course does not fulfill degree requirements.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $2 to 5.

AAC 106
Vocabulary Development (1 CR)
This self-instructional course is designed for college students who wish to expand both their receptive and expressive vocabulary levels. College students are expected to be able to recognize and use vocabularies specific to specialized and changing contents, i.e., data processing, sociology and business. A vocabulary placement test will be administered to determine a starting level. Instructional material provided by the A.A.C. includes Latin and Greek derivatives, specialized vocabulary, stated and implied meanings as well as the process of acquisition
(context clues, etymology and derivatives). An Academic Achievement Center instructor is available to work with the student to establish specific instructional goals, administer tests and provide individualized instruction as needed to complete the student’s program. This course does not fulfill degree requirements. Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $2 to 5.

AAC 112
Basic Math Review (1 CR)
This self-instructional course is designed for students who need to learn or review basic mathematical concepts. Based on the results of a pretest administered during the student’s initial visit to the Center, an individualized program is established. While one student may begin with multiplication facts, another may begin with solving proportions or equations. Instructional material is provided by the A.A.C. An Academic Achievement Center instructor is available to work with the student to establish specific instructional goals, administer tests and to provide individualized instruction as needed to complete the student’s program. This course does not fulfill degree requirements. Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $2 to 5.

AAC 113
Algebra Preparation (1 CR)
This self-instructional course is designed for students who possess basic math skills and want to learn basic concepts in algebra. Based on the results of a pretest administered during the student’s initial visit to the Center, an individualized program is established. Using instructional material provided by the A.A.C., students will master a variety of concepts, including the terminology of mathematics and algebra, simplifying open expressions, solving algebraic equations and other concepts. An Academic Achievement Center instructor will be available to work with the student to establish specific instructional goals, administer tests and provide individualized instruction as needed to complete the student’s program. This course does not fulfill degree requirements. Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $2 to 5.

AAC 114
Chemistry Preparation (1 CR)
This self-instructional course is designed for students who need to learn or review the basic chemistry concepts. Based on the results of a pretest administered during the student’s initial visit to the Center, an individualized program is established. Using instructional material provided by the A.A.C., students will master a variety of concepts, including chemical symbols and formulas, valences, chemical equations, the metric system, units and dimensions, temperature, numbers in exponent form, significant figures, electrical charges, acids, bases, salts and solubility. An Academic Achievement Center instructor is available to work with the student to establish specific instructional goals, administer tests and provide individualized instruction as needed to complete the student’s program. This course does not fulfill degree requirements. Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $2 to 5.

AAC 115
College Skills Development (1 CR)
This course is designed to improve student self-awareness and institutional awareness. Focus is on strengthening the student’s ability to use campus resources and services, as well as improving self-awareness in terms of communication skills, aptitudes, interests, values pertaining to career/life decisions, and self-advocacy. This course does not fulfill degree requirements.

AAC 120
Individualized Study (1 CR)
This self-instructional course is designed for students who want to improve in any of the following A.A.C. areas: study skills, reading comprehension, reading rate, vocabulary improvement, advanced spelling, basic math, algebra preparation or chemistry preparation. Once the area of study has been determined, a pretest will be administered by the instructor and a program of study will be developed using materials provided by the A.A.C. An Academic Achievement Center instructor is available to work with students to establish specific goals, administer tests, and to provide individualized instruction needed to complete the student’s program. This course does not fulfill degree requirements.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $2 to 5.

AAC 121
Individualized Study (2 CR)
This self-instructional course is designed for students who want to improve in one or two of the following A.A.C. areas: study skills, reading comprehension, reading rate, vocabulary improvement, advanced spelling, basic math, algebra preparation or chemistry preparation. Once the areas of study have been determined, a pretest will be administered by the instructor in each of these areas, and a program of study will be developed using materials provided by the A.A.C. An Academic Achievement Center instructor is available to work with students to establish specific goals, administer tests, and to provide individualized instruction needed to complete the student’s program. This course does not fulfill degree requirements.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $2 to 5.

AAC 122
Individualized Study (3 CR)
This self-instructional course is designed for students who want to improve in two or three of the following A.A.C. areas: study skills, reading comprehension, reading rate, vocabulary improvement, advanced spelling, basic math, algebra preparation or chemistry preparation. Once the areas of study have been determined, a pretest will be administered by the instructor in each of these areas, and a program of study will be developed using materials provided by the A.A.C. An Academic Achievement Center instructor is available to work with students to establish specific goals, administer tests, and to provide individualized instruction needed to complete the student’s program. This course does not fulfill degree requirements.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $2 to 5.

AAC 130
Medical Terminology (3 CR)
This self-instructional course is designed for the student who wants to learn a systematic format for acquiring a medical vocabulary. The course begins with a study of suffixes and prefixes common to most of the body systems and guidelines for combining word parts and forming plurals. This is followed by a study of each body system and oncological terminology. Any student who is planning a career in any facet of the health care industry will find this course beneficial. An Academic Achievement Center instructor is available to work with students to establish specific goals, administer tests and provide individualized instruction as needed to complete the student’s program.

AAC 135
Career and Life Planning (3 CR)
This course helps students make decisions about their college majors, careers and other life goals. It emphasizes career research as a tool for making current career decisions and meeting changes in the future workplace. Students learn a systematic approach for making career and life decisions based on their personalities, interest, skills and values.
AAC 150
Job Search Skills (1 CR)
This class presents the skills students need to conduct an effective job search, including locating job leads, writing resumes, employment interviewing and job correspondence. Additionally, students will explore the importance of adapting to changes in the workplace to ensure their job survival and success. The class consists of lectures, activities, discussion and exercises in the career planning and job search process.

Accounting (ACCT)

ACCT 109
Basics of Income Taxes (1 CR)
This course teaches the student federal income tax rules and the procedures for reporting federal income tax. Upon completion of this course, the student should be able to keep records that will provide appropriate information for use in preparing federal income tax. The student should also be able to prepare the basic individual federal income tax return. 1 hr. lecture/wk., 16 contact hours.

ACCT 111
Small Business Accounting (3 CR)
This course will introduce the basic accounting procedures needed to maintain daily records for a small business and the use of such records in the decision-making process. Upon successful completion of the course, the student will be able to maintain a set of financial records with the occasional help of an outside accountant. This course does not prepare the student for Accounting II. 3 hrs./wk.

ACCT 121
Accounting I (3 CR)
This course is an introduction to accounting fundamentals. Upon successful completion of this course, a student should be able to analyze transactions, use various journals and ledgers, prepare financial statements and summarize results at the close of the fiscal period for the sole proprietorship. 3 hrs./wk.

ACCT 122
Accounting II (3 CR)
Prerequisite: ACCT 121
This course is a continuation of ACCT 121. Upon successful completion of this course, the student should be able to prepare and use financial statements with increased emphasis on interpretation and use of accounting data peculiar to partnerships, corporations and manufacturing firms. 3 hrs./wk.

ACCT 131
Federal Income Taxes I (3 CR)
This course teaches the student federal income tax rules and the procedures for reporting federal income tax. Upon completion of this course, the student should be able to do short- and long-range tax planning and keep records that will provide appropriate information for use in preparing federal income tax. The student should also be able to prepare the standard individual federal income tax return. 3 hrs./wk.
ACCT 135
Computerized Accounting Applications (3 CR)
Prerequisite: ACCT 121 or ACCT 111
Upon successful completion of this course, a student will be able to use the microcomputer to create a chart of accounts, accounts receivable and payable subsidiary ledgers, transaction journals, general ledgers, financial statements, reports and forecasts. 3 hrs./wk.

ACCT 140
Computerized Accounting Problems (3 CR)
Prerequisite or corequisite: ACCT 122
The course will teach students how to use spreadsheet and database software to set up and solve accounting problems. 3 hrs/wk.

ACCT 215
Accounting for Nonprofit Organizations (3 CR)
Prerequisite: ACCT 121
This course is a three-hour survey course of not-for-profit accounting and its primary users: federal, state and local governments; hospitals; and schools. Upon successful completion of the course, the student should be able to describe the primary funds and accounting groups, assist in the budget process, and practice variances among the major nonprofit organizations according to their authoritative pronouncements. 3 hrs./wk.

ACCT 221
Cost Accounting (3 CR)
Prerequisite: ACCT 122
Upon completion of this course, the student should be able to develop and use accounting information to plan and control operations, value inventory, determine income in a manufacturing environment, and evaluate subsequent results. 3 hrs./wk.

ACCT 222
Managerial Accounting (3 CR)
Prerequisite: ACCT 122
Upon completion of this course, the student should be able to develop and use accounting information as an instrument of management control. Students will recognize needed information, determine where it can be obtained and decide how this information can be used by managers to plan, control and make decisions. Material covered includes financial statement analysis, cost application and budgeting reports management. 3 hrs./wk.

ACCT 231
Intermediate Accounting I (3 CR)
Prerequisite: ACCT 122
The course will present the use of accounting theory in the preparation of financial reports. Upon successful completion of this course, the student should be able to solve problems that arise in the presentation of cash, receivables, inventories, tangible and intangible assets on the statement of financial position, and their related effect on the statement of income. 3 hrs./wk.
ACCT 232  
Intermediate Accounting II (3 CR)  
*Prerequisite: ACCT 122*

Accounting theory learned through the study of accounting concepts and technical procedures will be presented in this course. Upon completion, the student should be able to solve problems in the presentation of capital structures, long-term investments, debts, leases, pensions, the analysis of financial statements, and price-level, and fair value accounting and reporting. 3 hrs./wk.

ACCT 278  
Accounting Internship (1 CR)  
*Prerequisite: ACCT 121 plus 12 additional ACCT hours beyond ACCT 121 and assistant dean's approval or career program facilitator's approval*

The student will be able to gain work experience in an approved training station under instructional supervision in an accounting or an accounting-related occupation. This internship is designed to give students the opportunity to apply the skills they have acquired in accounting specialty courses. The internship will require an average of 12 hours of job training per week by arrangement.

ACCT 285  
Accounting Capstone (3 CR)  
*Prerequisite: ACCT 121 and ACCT 122 plus 15 hours of accounting courses and assistant dean's approval*

This course is designed as a capstone experience before entering the workplace. Students will maintain a complete set of books and related financial statements both manually and electronically through an accounting cycle. Students will use previously prepared financial statements to make informed judgments and solve problems, identify and apply ethical positions and effectively communicate this information to others both orally and in writing.

Administration of Justice (ADMJ)

ADMJ 120  
Writing in the Disciplines (1 CR)  
*Writing in the Disciplines is designed to complement and/or support the Administration of Justice program by emphasizing the type of writing required in a law enforcement career. Students will review the rules of grammar, especially verb tense, pronoun usage, spelling, sentence correctness, and punctuation, and then they will practice writing a variety of report narratives representative of a career in law enforcement. Students enrolled in this class must come to the Writing Center, LIB 308, to make arrangements for their class schedule, to pick up a syllabus and other materials, and to be assigned an instructor. The course is a combination of written material and software. All completed work will be kept in a folder in the Writing Center. Students should anticipate approximately 20 hours of work to complete the course. This course is a required course in the Administration of Justice degree program. 1 hr. lecture/wk.*

ADMJ 121  
Introduction to Administration of Justice (3 CR)  
The student will be required to participate in field and classroom experiences designed to explore the career opportunities within the criminal justice system. The student will demonstrate through examinations, assigned papers and reports his or her knowledge of law enforcement processes; minimum requirements at entry level for local, state, and federal law enforcement; the minimum training standards of each; and the training and education programs available and required in Kansas. This course will provide a detailed description of the
components of the American criminal justice system: police, courts and corrections. 3 hrs. lecture/wk. This course provides a detailed description of the components of the American criminal justice system: police, courts and corrections. Students utilize critical thinking skills to discern the balance between individual rights and public order as it pertains to the criminal justice process. Students demonstrate knowledge of criminal justice processes through examinations, assigned papers and reports. Additionally, students are required to participate in field and classroom experiences designed to explore the various career opportunities within the criminal justice system. 3 hrs. lecture/wk.

ADMJ 124
Criminal Justice and Corrections (3 CR)
This course is a detailed exploration of the subsystems of the criminal justice system. It will begin with the history and evolution of the penal system. The law, legal system and criminal justice process will be reviewed. This focus includes a detailed examination of jails, detention facilities, probation, prisons and parole. An overview of the state, local and federal correctional systems will provide a systemic view of society's response to criminal behavior. 3 hrs. lecture/wk.

ADMJ 127
Criminology (3 CR)
This class will explore various explanations for criminal behavior including choice, biosocial, psychological, social structure and social process theories. Society's responses to crime will also be examined. 3 hrs. lecture/wk.

ADMJ 130
Crime Prevention (3 CR)
Topics of special interest include the techniques public service agencies use to operate crime-prevention programs and provide technically accurate, cost-effective security recommendations to the community. 3 hrs. lecture/wk.

ADMJ 133
Juvenile Delinquency (3 CR)
This class will provide an analysis of detention procedures, disposition, custody and treatment of juvenile offenders throughout the United States with a specific interest in area systems. The origin and development of juvenile agencies, as well as the organization, functions, and jurisdiction of juvenile courts will be studied. 3 hrs. lecture/wk.

ADMJ 140
Constitutional Case Law (3 CR)
Students will study Supreme Court decisions that have had significant effect on law enforcement techniques and procedures. 3 hrs. lecture/wk.

ADMJ 141
Criminal Law (3 CR)
Prerequisite: ADMJ 124 or LAW 121 or PL 121
After taking this course, the student will be able to state the two basic elements necessary for any crime and the philosophy behind these two elements. After a detailed exploration of common law crimes and selected Kansas and Missouri statutes, the student will be able to classify common law crimes and state the difference between a felony and a misdemeanor. The student will understand the significance of the separation of powers doctrine and its application to criminal law
and the constant interplay of the U.S. Constitution in criminal law. 3 hrs. lecture/wk.

ADMJ 143
Crime Analysis (3 CR)
Students will learn crime profiling skills and specialized techniques of conducting research, analyzing data and producing crime analysis products. Students will survey existing computer applications and learn practical use and evaluation of these applications. Students will become familiar with the common written reports, charts and graphs used to describe crime analysis products. Students will survey the variety of customers served by crime analysts and the integral part crime analysis plays within the community. 3 hrs. lecture/wk.

ADMJ 145
Fundamentals Private Security (3 CR)
In addition to understanding the general field of private security, the student will be able to differentiate between the security needs of industry, private business, government and selected educational institutions. 3 hrs. lecture/wk.

ADMJ 146
Retail Security (3 CR)
This is a study of retail security supervision and management. Topics will include employment practices, employee dishonesty, controlling shoplifters, and building and perimeter protection. 3 hrs. lecture/wk.

ADMJ 148
Family Violence/Sexual Abuse (3 CR)
A description and causal analysis of the different physical, psychological, and sexual abuse acts that may occur within the primary family unit will be provided in this course. The study will include possible causative factors; psychological and social effects on the various family members; psychological, social and legal implications; treatments; and the relationship between abuse and crime. 3 hrs. lecture/wk.

ADMJ 154
Fundamentals of Criminal Investigation (3 CR)
Prerequisite: ADMJ 124
This course is designed to give fundamental information that serves as an overview of the entire field as well as a solid foundation for specialized course work. The course focuses on homicide investigation, crimes against children and sex-related offenses. 3 hrs. lecture/wk.

ADMJ 170
Introduction to Substance Use and Abuse (3 CR)
This course explores mood-altering substance use and abuse, including these substances' history and evolution. The course will focus on the models of abuse, addiction and treatment. The current local and federal laws governing substance use and abuse will be examined. Students will gain a comprehensive grasp of the current facts, focuses, and methods of dealing with mood-altering substances. 3 hrs. lecture/wk.
ADMJ 201
Police Interrogation (3 CR)
Prerequisite: Suggested course: ENGL 121
This class will help students develop their verbal and written communications in the criminal justice area. The concepts necessary to develop the verbal and written technical communications skills in the area of criminal justice is one of the most important aspects needed when considering future criminal justice employment. Emphasis will be placed on the development of skills in interviewing, interrogation, and report writing. The major emphasis will be placed upon the development of basic skills used in verbalizing information and reducing it to technical writing necessary in the criminal justice field. Students will leave the class with the knowledge and ability to interview victims, witnesses and suspects, and to use the information gained to write an accurate complete narrative police report. A component of this course is spent in the Writing Center developing the writing skills necessary for a career in criminal justice. 3 hrs. lecture/wk.

ADMJ 221
Introduction to Forensics (3 CR)
This course provides an overview of forensic science by focusing on the current technologies police rely on to apprehend criminal perpetrators and to link them through trace evidence to crime scenes. Emphasis is on crime scene investigation, physical evidence, organic and inorganic analysis, forensic toxicology and use of DNA in investigations. 3 hrs. lecture/wk.

ADMJ 224
Introduction to Terrorism (3 CR)
This course defines and describes for students and current police officers the following terms: terrorism, current terrorist organizations, which includes their history, their personnel and their capacity to threaten the security and interests of the United States. Within this context, students learn how law enforcement officials can predict patterns of terrorist activities. The course focuses especially on law enforcement's methods for combating terrorism within multiple arenas, including deterrence, detection, prevention, and swift response. The course further addresses the challenges facing law enforcement and intelligence agencies in developing a coordinated response to terrorism. 3 hrs. lecture/wk. This course may be offered as a Learning Communities (LCOM) section, see current credit schedule for LCOM details.

ADMJ 230
Criminal Behavior (3 CR)
Prerequisite: PSYC 130
This course is a detailed survey of the various psychological pathologies displayed by citizens when coming into contact with the police, as well as the sources of those pathologies. Various strategies of handling and dealing with troubled persons will be discussed. Student will learn about psychological profiling and mental status examination. Factors contributing to individual behavior will be explored. Students will receive an overview of common treatment procedures. 3 hrs. lecture/wk.

ADMJ 235
Community Based Corrections (3 CR)
This course is a comprehensive examination of community based corrections. The history of probation and parole is discussed as a foundation for the expanded coverage of correctional services offered in the community. Emphasis is given to modern correctional paradigms including diversion, intermediate sanctions and restorative justice. Practical field experience will broaden the students? understanding of this population and successful best practices of existing federal, state and county agencies will be examined. 3 hrs. lecture/wk.
ADMJ 265
Advanced Police Training
Prerequisite: Selective Admissions - open only to currently employed full-time police officers attending the Police Academy under sponsorship of a law enforcement agency
This course consists of 140 clock hours of law enforcement training provided in addition to the 400 hours required by the Kansas Minimum Standards Training Act for recruits attending the Police Academy. While the required 400-hour curriculum is provided without fee, enrollment in advanced training is required of all those attending the academy. The curriculum covers law, criminal investigations, patrol procedures, defensive tactics, report writing and specialized training required by local law enforcement agencies. Major Code 4880, CIP Code 43.0107

ADMJ 280
Criminal Justice and the Public (3 CR)
Prerequisite: ADMJ 120 and ADMJ 121 and ADMJ 124 and ADMJ 127 and at least five (5) additional credit hours of Administration of Justice course work
This capstone course for Administration of Justice majors will identify and analyze conflict that arises between various parts of the criminal justice system and the communities they serve. The student will study needs and interests of various citizen populations as well as appropriate methods of serving those populations. The student will also study concepts of ethics and professionalism and will apply those concepts in an administration of justice field. 3 hrs. lecture/wk.

ADMJ 281
Readings in Police Science (3 CR)
Prerequisite: 15 credit hours in ADMJ courses
The class will consist of selected readings in police science on topics such as police administration, criminal investigation, criminology, corrections, juvenile problems and evidence. By arrangement.

ADMJ 285
Administration of Justice Internship (3 CR)
Prerequisite: Fifteen credit hours in ADMJ courses or program facilitator approval and a grade point average of 2.0 or higher
The student will gain experience in settings that reflect the application of knowledge and skills acquired in the Administration of Justice program. The student is expected to interact in a structured format with a professional agency, in a role related to study and career interests, and to develop insight and information that will help refine career directions and focus further study.

Animation (ANI)
ANI 120
Conceptual Art for Animation (1 CR)
Prerequisite: CDTP 135
In this basic concept art course designed specifically for the game artist, graphic artist and animator, students will study basic and advanced drawing elements and principles. Students will produce conceptual artwork used in animation, graphic arts and gaming, including realistic and cartoon character design, landscape environments, architecture, and vehicles. 1 hr. integrated lecture lab/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.
ANI 145
Introduction to 3D Animation (3 CR)
Prerequisite: CDTP 135 and either ANI 120 or CIM 120
This introductory course will provide a historical background and general design and production issues for 3D animation and game art creation. The details of modeling dimensional objects and environments and a range of simple to complex rendering techniques will be covered. Issues associated with telling a story through moving pictures such as screenplay writing, storyboarding and techniques for bringing an animated character to life will be explored. 6 hrs. integrated lecture-studio/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

ANI 245
Character Animation (3 CR)
Prerequisite: ANI 145 or CIM 145
Students will continue to refine their skills in a variety of character animation media. The computer and cutting edge software has become an increasingly important tool in creating character animatics, 2D and 3D character animations. More principles and elements of character animation will be introduced to create more realistic, believable and engaging stories. Continued focus on the importance of plot, character development, key principles of animation and artistic skill will push students into realms of endless creativity and imagination. 6 hrs. integrated lecture-studio/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

ANI 255
Advanced Animation and Effects (3 CR)
Prerequisite: ANI 245 or CIM 245
The Advanced Animation and Effects course exposes students to various Hollywood style effects, from viscous liquid to open ocean effects. Through hands-on tutorials students will simulate and render a variety of visual effects including fire, explosions, smoke, steam, lightning, rain, snow storms and tornados. These are just a few of the many limitless possibilities that are required by today’s demanding visual effects companies. The students will also explore compositing, combining CG (computer generated) and live video together to create stunning imagery. 6 hrs. integrated lecture, lab/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

ANI 260
Animation Capstone (3 CR)
Prerequisite: ANI 255 or CIM 255
In this course, the student will use all the knowledge attained in previous core animation courses and develop a finished 1-2 minute independent movie following a predetermined animation production process and schedule. Students will develop a portfolio including an auto-run DVD or VHS tape, and a hard copy portfolio including illustrations of characters, model sheets, storyboards, props, environments, textures and final rendered scenes created for the movie. 6 hrs. integrated lecture, lab/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

ANI 272
Animation Internship (1 CR)
Prerequisite: Facilitator approval required
Students will work in an approved training situation under instructional supervision. The internship is designed to give the student the opportunity to use the skills learned in the interactive media program. Student interns will be
required to complete a minimum of 180 hours of on-the-job training. ANI 272 and CIM 272 are the same course; do not enroll in both.

**Associated Costs:** In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

### ANI 273
**Career Preparation (4 CR)**

*Prerequisite or corequisite: ANI 260*

This course will provide interactive media majors instruction in the presentation of his or her work in a digital portfolio format of professional quality. A printed and written resume will be produced. Self-promotion, networking, job searches and interview skills will also be covered. 3 hrs. lecture, 2 hrs. lab/wk. ANI 273 is the same course as CIM 273; do not enroll in both.

**Associated Costs:** In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

---

### Anthropology (ANTH)

#### ANTH 125
**Cultural Anthropology (3 CR)**

This introductory course will employ various anthropological theories, perspectives, and methodologies to critically and comparatively examine an array of cultural and social topics as they relate to selected Western and Non-Western cultures and societies. 3 hrs./wk.

#### ANTH 126
**Physical Anthropology (3 CR)**

This course is an introduction to selected concepts and principles important to an understanding of evolutionary forces and their influence on the physiology and behavior of humans. The importance of the scientific method will be explored. Awareness of humans and their place in nature will be achieved by examining basic genetics, micro- and macroevolution, primate ecology and behavior, the paleoanthropological evidence for human evolution, and modern human adaptation and variation. 3 hrs./wk.

#### ANTH 130
**World Cultures (3 CR)**

This introductory course will utilize an ethnographic approach to introduce students to various cultural and social practices of Westernized and non-Westernized cultures and societies from around the world. This course will examine a wide range of topics including economic production, religion, world view, kinship patterns and political and economic institutions. 3 hrs./wk.

#### ANTH 134
**Native Americans (3 CR)**

This ethnographic course will introduce students to the indigenous peoples and First Nations of North, Central and South America, with particular attention being paid to North America. This course will focus on selected First Nations cultures and societies to examine a wide range of topics including arts, oral traditions, religions, and Indian-White relations. 3 hrs. lecture/wk.

#### ANTH 140
**Archaeology (3 CR)**

This course is an introduction to the basic concepts, methods, and findings in
archaeology. Awareness of the variety and continuity of the human past will be achieved by examining the processes that form and transform the archaeological record, basic dating techniques, and approaches to understanding the past. Through the archaeological record we will consider the evolution of humans, the transition of foraging to farming economies, the rise of complex societies, secondary state formation, and the collapse of complex societies. 3 hrs./wk.

Architecture (ARCH)

ARCH 120
Introduction to Architecture (3 CR)
This course is an introduction to the profession of architecture through a study of its history, vocabulary, theories and practices. The facets that make up the total architectural curriculum as well as the various professional roles that architects can be expected to perform will be covered. Architectural study is seen as both an art and a science. The interdisciplinary character of architectural practice is emphasized. 3 hrs. lecture/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $50 to 100.

ARCH 123
Architectural Principles (3 CR)
Prerequisite: ARCH 120
This course will elaborate on the concepts first presented in introduction to architecture. General focus will be on the modern profession and architects dealing with past, present and emerging ideas as they relate to physical and social context including landscaping, buildings and cities. Unifying themes will be presented of formal architectural principles in relation to modernism and the impact on design, the site, landscaping, and site planning issues. 3 hrs. lecture/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 30.

ARCH 127
Introduction to Architectural Graphics (4 CR)
This course is designed to build a conceptual and manual foundation for professional architectural education. Students will learn to apply a variety of media and drawing systems such as freehand drawing, architectural lettering and equipment usage. Students will also learn applied geometry including line, tone, texture and utilizing sun, shade and shadows. Multi-view, paraline, axonometric and oblique drawings will be taught and students will build models related to architectural forms. Emphasis will be on learning to think in spatial terms while introducing professional, conceptual and visual vocabulary. Graphic presentation skills will be developed using standard graphic conventions, basic computer skills, and basic material investigations. 8 hrs. integrated lecture, studio/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $125 to 200.

ARCH 131
Architectural Graphics (3 CR)
Prerequisite: ARCH 127 or ARCH 130
This course builds upon the conceptual and manual skills acquired in Introduction to Architectural Graphics. Students will expand their ability by learning to apply a variety of media and advanced drawing systems, such as design drawing techniques, model building, graphic diagramming, grid perspective drawing, projection perspective drawing, and shade and shadow studies. Emphasis will continue to be on learning to think in spatial terms as well as developing a new repertoire of graphic presentation skills. 6 hrs. integrated lecture, studio/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this
ARCH 140
Architectural Design (3 CR)
Prerequisite: ARCH 127 or ARCH 130
This course introduces the student to the process and vocabulary of design. The purpose of the content is to develop the ability to solve two- and three-dimensional design problems with basic methods, vocabulary and media appropriate to the architectural profession. 6 hrs. integrated lecture, studio/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $100 to 300.

ARCH 240
Architectural History: Ancient to Middle Ages (3 CR)
This course will trace the development of the built environment from Antiquity to the Middle Ages and explore pre-Columbian and Islamic architecture. Emphasis will be placed on how materials, technological advances and natural environment influence architecture. The shaping of architecture through cultural forces will be stressed. Fundamental design principles and analyses of the built form will also be covered. 3 hrs. lecture/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $25 to 100.

ARCH 241
Architectural History: Renaissance to Enlightenment (3 CR)
This course will investigate the architecture of the Renaissance, Baroque and Enlightenment periods. A brief exploration into non-Western architecture will also be presented. The focus of this course will be on the principles of design, cultural forces and concept of the built environment within its historical context. The work of prominent architects from each period will be highlighted and analyzed. 3 hrs. lecture/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $25 to 50.

Art (ART)

ART 124
Design 2D (3 CR)
This is an introductory study of the principles of visual perception, two-dimensional space organization and the visual elements of line, shape, texture and space. Concepts, materials and processes necessary to an understanding of two-dimensional form are explored using traditional and digital tools and techniques. Working knowledge of Adobe Illustrator is required. 6 hrs. lecture and studio/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $200 to 400.

ART 127
Design 3D (3 CR)
Prerequisite: ART 124
This is a study of the function of three-dimensional organization in the development of visual ideas. Concepts, materials and processes necessary to an understanding of the three-dimensional relationships of space, form, form evolution and the dynamics of structure are explored. 6 hrs. lecture and studio/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $200 to
ART 129
Design Color (3 CR)

This is a study of the nature of color, its physical properties and visual qualities. Basic theories, phenomena and their applications will be explored using pigment, colored paper and digital color systems. Working knowledge of Adobe Photoshop is required. 6 hrs. lecture and studio/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $200 to 400.

ART 130
Drawing I (3 CR)

This is an introductory course with an emphasis on the development of fundamental drawing skills, increased power of observation and an awareness of the personally expressive and compositional aspects of drawing. 6 hrs./wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $100 to 200.

ART 131
Drawing II (3 CR)

Prerequisite: ART 130

This course involves intermediate problems in drawing with emphasis on individual expression based on historical as well as contemporary concerns and approaches in art. Students will work from models, still-life, and conceptual presentations. A variety of media will be explored. 6 hrs./wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $100 to 200.

ART 135
Painting I (3 CR)

This course is an introduction to the basic elements of painting. Students will learn basic painting skills, color properties, color mixing, color relationships, applications and proper use of tools and equipment. 6 hrs./wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $100 to 200.

ART 136
Painting II (3 CR)

Prerequisite: ART 135

This course involves intermediate problems in painting with emphasis on individual expression based on historical as well as contemporary concerns and approaches in art. 6 hrs./wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $100 to 200.

ART 138
Digital Imaging for Artists (3 CR)

This course is an introduction to the use of the computer as a medium for making fine art. The course will emphasize developing the student's skill in making expressive visual statements using computer technology. 6 hrs./wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this
course has additional expense considerations that are estimated to be $100 to 200.

ART 142
Ceramics I (3 CR)
This course is designed to build a conceptual and manual foundation for future ceramics education. Students will study the properties of clay, its preparation, hand and wheel techniques, surface design, firing methods, fundamental ceramic terms, principles of design, introductory ceramic history and orientation to safe practices for the ceramic artist. Emphasis will be on developing skills appropriate to the beginning student for the purpose of creative and technical expression. 6 hrs./wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $100 to 250.

ART 143
Ceramics II (3 CR)
Prerequisite: ART 142
This course covers more advanced methods and studio practices in creative ceramic wheel expression and glaze formation. Emphasis is on development of a sense of thrown form and creative decoration or optional creative non-wheel ceramic form development. The course focuses on advanced ceramic form production, aesthetic issues, investigative study and practice. Clay, glaze and firing techniques are investigated in depth. The student acquires a repertoire of studio skills, a deeper awareness of ceramic history and articulated criteria of judgment. Individual interpretation and conceptual development are expected. The study of aesthetics of ceramic form is undertaken. 6 hrs./wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $100 to 250.

ART 145
Sculpture I (3 CR)
Students will explore and study natural and synthetic sculptural forms as they create work using traditional or contemporary media and techniques. Assignments require work in limestone, clay, wax, bronze, aluminum and steel, and involve carving, modeling and building up. 6 hrs./wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $50 to 200.

ART 146
Sculpture II (3 CR)
Prerequisite: ART 145
This continuation of ART 145 will focus on advanced methods and techniques with emphasis on materials, forms and the student's selection of an individual direction with individual material choices. 6 hrs./wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $50 to 200.

ART 148
Metal and Silversmithing I (3 CR)
This course is a basic introduction to the terms, tools and techniques involved in creating jewelry and other wearables as they relate to the human figure. Casting, fabrication and construction will be explored. 6 hrs./wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $50 to 200.
Metal and Silversmithing II (3 CR)
Prerequisite: ART 148
Students will study advanced casting and construction techniques. Projects should show a higher degree of design and function. 6 hrs./wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $50 to 200.

ART 172
Watercolor Painting (3 CR)
This course is an introduction to transparent water media with emphasis on learning fundamental painting skills, the visual elements, composition, visual perception and an awareness of personal expression. 6 hrs./wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $100 to 200.

ART 180
See ARTH 180 for Art History: Ancient to Renaissance (3 CR)
This course will acquaint students with the arts and ideas of world civilizations from the prehistoric period to the beginning of the Italian Renaissance. The course will examine the aesthetic elements that mark the styles of major periods in two-dimensional, three-dimensional and architectural works. Particular attention will be paid to the relationship between artistic elements and their various cultural and historical contexts. 3 hrs./wk.

ART 182
Art History: Renaissance to Modern (3 CR)
This course will acquaint students with the arts and ideas of Western cultures from the beginning of the Italian Renaissance to the present. The course will examine the aesthetic elements that mark the styles of major periods in two-dimensional, three-dimensional and architectural works. Particular attention will be paid to the relationship between artistic elements and their various cultural and historical contexts. 3 hrs./wk. This course may be offered as a Learning Communities (LCOM) section, see current credit schedule for LCOM details.

ART 184
Art History: Twentieth Century (3 CR)
This course introduces the student to the arts and ideas of Western Europe and the United States from the late 19th century to the present. The course will examine the aesthetic elements that mark the styles of major movements in two-dimensional, three-dimensional and architectural works. Particular attention will be paid to the relationship between artistic elements and their various cultural and historical contexts. 3 hrs. lecture/wk.

ART 186
Art History: Introduction to Asian Art (3 CR)
This course will acquaint students with the arts and ideas that arose in India, China and Japan from the prehistoric to the early modern periods. The course will examine the aesthetic elements that mark the styles of major periods in two-dimensional, three-dimensional and architectural works. Particular attention will be paid to the relationship between artistic elements and their various cultural and historical contexts. 3 hrs. lecture/wk.

ART 231
Life Drawing I (3 CR)
Prerequisite: ART 130
This course is an introduction to the basic elements of drawing for students wanting a concentration in drawing the human figure. Students will acquire basic competence in developing drawings involving the human form. 6 hrs./wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $100 to 200.

ART 232
Life Drawing II (3 CR)
Prerequisite: ART 231
This course is an intermediate investigation of drawing from the human form. This class is for students wanting to concentrate on figure drawing beyond Life Drawing I. 6 hrs./wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $100 to 200.

ART 235
Studio Workshop I (3 CR)
Prerequisite: ART 131 or ART 136
This course involves advanced problems in painting (or drawing) with emphasis on individual expression based on historical as well as contemporary concerns and approaches in art. 6 hrs./wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $100 to 200.

ART 236
Studio Workshop II (3 CR)
Prerequisite: ART 235
This course involves advanced problems in painting (or drawing), above and beyond those experienced in Workshop I, with emphasis on individual expression. 6 hrs./wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $100 to 200.

ART 244
Ceramics Workshop I (3 CR)
Prerequisites: ART 143 and permission of the assistant dean
Students will have the opportunity to pursue advanced individual research under the direction of the instructor. Emphasis is on creative expression and development of technical skills as well as the further pursuit of technical studies that have relevance for emerging personal specializations. Students will conduct a personal program of study on one aesthetic issue that emerges as personally significant and present the outcomes in an appropriate and acceptable manner at the close of the semester. Students should initiate and pursue studies in directions that inform and further their individual professional and creative growth, which leads to invention, innovation and refinement of their personal semester work, as agreed upon with the instructor. This course enables further pursuit of technical studies that have relevance for these emerging personal specializations.
Skill refinement, three-dimensional imagination, with increased creative expression and creative product generation are anticipated. 6 hrs. lecture, lab/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $100 to 250.

Astronomy (ASTR)
ASTR 120  
**Fundamentals of Astronomy** (3 CR)  
This course is a study of the universe from the earth, moon and planets to the stars and the most distant galaxies. Topics include black holes, quasars, and the origin of the universe and the possibility of life on other planets. Current astronomical discoveries are discussed in class as they occur. Access to astronomical Web sites is available to students in this course. 3 hrs. lecture/wk.

ASTR 122  
**Astronomy** (4 CR)  
This course is a study of the universe from the earth, moon, and planets to the stars and the most distant galaxies. Topics include black holes, quasars, and the origin of the universe and the possibility of life on other planets. Current astronomical discoveries are discussed in class as they occur. Access to astronomical Web sites is available to students in this course. 3 hrs. lecture, 2 hrs. lab/wk., 5 nighttime telescope sessions are required.

**Automotive Technology (AUTO)**

AUTO 121  
**Small Engine Service** (3 CR)  
Upon successful completion of this course, the student should be able to compare and contrast operating principles of two-stroke and four-stroke cycle engines. The student should be able to describe lubricating, cooling, fuel and governor systems; troubleshoot engine problems; inspect engine components; and service the fuel, cooling and exhaust systems. The student will be required to provide ANSI Z87 safety glasses and may be expected to provide other basic hand tools and/or equipment. 2 hrs. lecture, 3 hrs. lab/wk.  
**Associated Costs:** In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $40 to 300.

AUTO 122  
**Introduction to Automotive Glass** (3 CR)  
Upon successful completion of this course, the student should be able to diagnose, service and repair various automotive glass problems, provide professional service to customers, and manage and supervise jobs and employees. The student will be required to provide ANSI Z87 safety glasses and may be expected to provide other basic hand tools and/or equipment. 2 hrs. lecture, 1 1/2 hrs. lab/wk.  
**Associated Costs:** In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $40 to 300.

AUTO 123  
**Motorcycle Maintenance and Repair** (2 CR)  
Upon successful completion of this course, the student should be able to demonstrate the proper use of tools and equipment used in servicing motorcycles. Two-stroke and four-stroke cycle designs will be studied. Overhaul procedures will be demonstrated. The student will be required to provide ANSI Z87 safety glasses and may be expected to provide other basic hand tools and/or equipment. 1 hr. lecture, 3 hrs. lab/wk.  
**Associated Costs:** In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $40 to 300.

AUTO 125  
**Introduction to Automotive Shop Practices** (3 CR)  
This is a beginning course that is appropriate for both the automotive major and other interested students. Upon successful completion of this course, the student
should be able to develop shop safety habits and become proficient in tire,
battery, cooling system, lubrication service and minor electrical diagnosis. This
course is an introductory course required for all students in the Automotive
Technology program. Emphasis will be placed on learning basic skills needed to
take advanced automotive classes. The student will be required to provide ANSI
Z87 safety glasses and may be expected to provide other basic hand tools and/or
equipment. 2 hrs. lecture, 3 hrs. lab/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this
course has additional expense considerations that are estimated to be $40 to 300.

AUTO 128
Automotive Parts Specialist (2 CR)
Upon successful completion of this course, the student should be able to
demonstrate good communication and basic math skills. Ordering and maintaining
correct inventory, as well as displaying and selling automotive parts for a fair
profit, will be studied. Lectures will be supported by parts specialists in the
industry. 2 hrs. lecture/wk.

AUTO 130
Diesel Fundamentals (2 CR)
Prerequisite or corequisite: AUTO 125
Upon successful completion of this course, the student should be able to identify
diesel engine components and parts and troubleshoot and service all external
components with emphasis on glow plugs, injectors and injector pumps. The
student will be required to provide ANSI Z87 safety glasses and may be expected
to provide other basic hand tools and/or equipment. 1 hr. lecture, 3 hrs. lab/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this
course has additional expense considerations that are estimated to be $40 to 300.

AUTO 163
Automotive Steering and Suspension (3 CR)
Prerequisite or corequisite: AUTO 125 or approval of division administrator
Upon successful completion of this course, the student should be able to describe
manual and power steering component operation, summarize construction and
operation of front and rear suspension systems, perform four-wheel alignment on
current vehicles and service steering and suspension components. The student
will be required to provide ANSI Z87 safety glasses and may be expected to
provide other basic hand tools and/or equipment. 2 hrs. lecture, 3 hrs. lab/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this
course has additional expense considerations that are estimated to be $40 to 300.

AUTO 165
Automotive Engine Repair (4 CR)
Prerequisite or corequisite: AUTO 125 or approval of the program administrator
Upon successful completion of this course, the student should be able to
demonstrate an understanding of the four-stroke cycle internal combustion
engine, calculating compression ratio, piston displacement, horsepower and
torque, and correcting internal engine malfunctions. The student will be required
to provide ANSI Z87 safety glasses and may be expected to provide other basic
hand tools and/or equipment. 2 hrs. lecture, 6 hrs. lab/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this
course has additional expense considerations that are estimated to be $40 to 300.

AUTO 167
Automotive Brake System (2 CR)
Prerequisite or corequisite: AUTO 125 or approval of program administrator
Upon successful completion of this course, the student should be able to
summarize disc and drum brake construction and operation, service all brake
system components and describe anti-lock brake system services. The student
will be required to provide ANSI Z87 safety glasses and may be expected to provide other basic hand tools and/or equipment. 1 hr. lecture, 3 hrs. lab/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $40 to 300.

AUTO 168
Automotive Manual Drivetrain and Axles (3 CR)
Prerequisite or corequisite: AUTO 125 or approval of program administrator

Upon successful completion of this course, the student should be able to work safely in the shop; service the typical manual transmission/transaxle; service typical transfer cases; inspect, adjust and replace all clutch components; disassemble, reassemble and set up a differential; and service all front- and rear-wheel drive shaft components. The student will be required to provide ANSI Z87 safety glasses and may be expected to provide other basic hand tools and/or equipment. 2 hr. lecture, 3 hrs. lab/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $40 to 300.

AUTO 201
ASE Certification Seminar (1 CR)

This course will prepare students to take any of the eight basic National Institute for Automotive Service Excellence (ASE) automotive certification tests, the Advanced Engine Performance Specialist (L1) test or the three ASE Engine Machinist tests. 1 hr. lecture/wk.

AUTO 206
Automotive Retailing Sales (3 CR)
Prerequisite: MKT 133 or MKT 134

Upon successful completion of this course, the student should be able to demonstrate the skills necessary for competency in automotive retailing. Student awareness and understanding will be directed toward an introduction to automotive retailing, past, present and future; professionalism in sales; the components of sales transactions; a structured sales program and product knowledge; customer satisfaction and follow-up; building a clientele; and success through self-improvement. 3 hrs. lecture/wk.

AUTO 210
Advanced Engine Repair (3 CR)
Prerequisite: AUTO 165

Upon successful completion of this course, the student should be able to plan, design, and build a performance engine. The student will also demonstrate knowledge of the relationships between displacement, horsepower and torque; regulations governing performance engines; and current trends in engine modification. The student will be required to provide ANSI Z87 safety glasses and may be expected to provide other basic hand tools and/or equipment. 1 hr. lecture, 6 hrs. lab/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $40 to 300.

AUTO 230
Automotive Heating and Air Conditioning (3 CR)
Prerequisite or corequisite: AUTO 125 or approval of program administrator

Upon successful completion of this course, the student should be able to operate, service and diagnose automotive heating, ventilation and air conditioning systems. The course will cover the theory and operation of these systems, major components, testing, recycling and other service procedures. The student will be required to provide ANSI Z87 safety glasses and may be expected to provide other basic hand tools and/or equipment. 2 hrs. lecture, 3 hrs. lab/wk.
AUTO 234
Automotive Electrical System (4 CR)
Prerequisite or corequisite: AUTO 125 or approval of program administrator
Upon successful completion of this course, the student should be able to service starting and charging system components: describe the operation and construction of starters, alternators and controlling devices; describe various lighting systems used in current automotive vehicles; and repair electrical lighting and accessory systems. The student will be required to provide ANSI Z87 safety glasses and may be expected to provide other basic hand tools and/or equipment. 3 hrs. lecture, 3 hrs. lab/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $40 to 300.

AUTO 250
Automatic Transmissions and Transaxles (4 CR)
Prerequisite or corequisite: AUTO 125 or approval of program administrator
Upon completion of this course, the student should be able to diagnose, service and repair various automatic transmissions and automatic transaxles, including computer-controlled systems. The student will be required to provide ANSI Z87 safety glasses and may be expected to provide other basic hand tools and/or equipment. 3 hrs. lecture/demonstration, 3 hrs. lab/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $40 to 300.

AUTO 254
Automotive Engine Performance (5 CR)
Prerequisite or corequisite: AUTO 165 and AUTO 234
Upon successful completion of this course, the student should be able to describe the operation and construction of automotive fuel system components such as carburetors, fuel pumps, injectors and controlling devices. The student should also be able to describe the operation and construction of ignition circuits to include computer controlled and DIS systems. Finally, students should be able to service all performance systems on the automobile. The student will required to provide ANSI Z87 safety glasses and may be expected to provide other basic hand tools and/or equipment. 3 hrs. lecture, 6 hrs. lab/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $40 to 300.

AUTO 260
Automotive Service Management (3 CR)
Prerequisite: AUTO 254
Upon successful completion of this course, the student should understand the automotive service manager's job. The manager's job includes planning for inevitable change, maintaining flexibility, site planning, customer satisfaction, employee practices, meeting financial goals, and managing time, conflict and stress. The student will be required to provide ANSI Z87 safety glasses and may be expected to provide other basic hand tools and/or equipment. 2 hrs. lecture, 3 hrs. lab/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $40 to 300.

AUTO 261
Automotive Service Techniques (3 CR)
Prerequisite: AUTO 254
Upon successful completion of this course, the student should become proficient in ordering of parts, writing repair orders, presenting work orders to customers,
questioning customers about automobile service problems, answering the telephone, and supervising work loads. Students will also diagnose and perform service work on student and staff vehicles. The student will be required to provide ANSI Z87 safety glasses and may be expected to provide other basic hand tools and/or equipment. 1 hr. lecture, 6 hrs. lab/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $40 to 300.

AUTO 271
Automotive Technology Internship (3 CR)
Prerequisite: Program facilitator approval required
Upon successful completion of this course, the student should be able to apply classroom knowledge to an actual work situation. The internship will provide advanced students on-the-job experience under the supervision of professionals in the industry. The work will be developed cooperatively with area employers, college staff and each student to provide a variety of actual job experiences directly related to the student’s career goals. 1 hr. lecture, 15 hrs. work min./wk
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $40 to 300.

Biology (BIOL)

BIOL 110
Nutrition for Life (2 CR)
Designed for students who wish to apply nutrition information to their lives, this course explores how food selection affects body size, body composition, performance, disease resistance and longevity. Students will analyze the composition of their diets and develop a plan of action to improve their eating behaviors. 2 hrs. lecture/wk.

BIOL 115
Natural History of Kansas (3 CR)
Natural History of Kansas describes physical and biological processes that have led to the present Kansas landscape. Physical science topics include geology, climate patterns and soil formation. Biological science topics include ecology and a survey of the plants and animals of Kansas. The course will consider how the physical and biological environment relates to past and present human resource uses. 3 hrs. lecture/wk. Two 7-hr. Saturday labs required.

BIOL 122
Principles of Biology (3 CR)
This course is an introduction to selected concepts and principles important to an understanding of how biological systems operate. The importance of scientific methods and processes will be explored. Biological organization will be studied by examining the chemical, cellular, organismal and ecological properties that are unique to life. The diversity and unity of life will be explained in terms of classical and molecular genetics. 3 hrs./wk. BIOL 122 students see Memory Strategies classes on pg.? - Optional Enrollment.

BIOL 123
Principles of Biology Lab (1 CR)
Prerequisite or corequisite: BIOL 122 or consent of the assistant dean
This introductory lab examines basic biological concepts by focusing on the structures and functions of plants and animals. 2 hrs./wk. BIOL 123 students must be currently enrolled in BIOL 122 or have successfully completed BIOL 122 within the last three years.
BIOL 124
Oceanus: Essentials of Oceanography (3 CR)
This course for beginning students focuses on the marine environment as a unique feature of the planet earth and investigates areas of intense scientific and public concern: the pervasiveness of the ocean and its effect on the earth's weather, its stunning physical size and diversity of contained life forms, its contributions to the physical and historical development of man, its impact on geopolitical and economic matters, and the impact of oceanic pollutants and the potential exploitation of marine resources. 3 hrs. lecture/wk.

BIOL 125
General Botany (5 CR)
This is a survey of the life, growth and structure of plants. Divisions of the plant kingdom will be presented with emphasis on life cycles, anatomy, physiology and ecology of major groups. Students will do microscopic and macroscopic analysis of the major division. 3 hrs. lecture, 4 hrs. lab/wk.

BIOL 127
General Zoology (5 CR)
This is a survey of the life, structure, and growth of animals. Students will concentrate on identifying animals by their structural characteristics and looking at the role adaptation plays in anatomical and physiological features. Students will do dissections and microscopic analysis of the major phyla. 3 hrs. lecture, 4 hrs. lab/wk.

BIOL 130
Environmental Science (3 CR)
Environmental Science seeks to describe problems and solutions associated with human use of natural resources. Students will study the major physical and biological processes that govern the complex interactions in natural ecosystems. Major course topics include human population growth, resource use and pollution. Practical solutions aimed at sustainability will be identified and examined. This is an introductory, nonscience-major survey course. 3 hrs./wk. BIOL 131 students must be currently enrolled in BIOL 130 or have successfully completed BIOL 130 within the last three years. This course may be offered as a Learning Communities (LCOM) section, see current credit schedule for LCOM details.

BIOL 131
Environmental Science Lab (1 CR)
Prerequisite or corequisite: BIOL 130
In this lab, students will learn ecological principles that are necessary for understanding and solving environmental problems. Students will sample the local environment for various types of environmental pollution, conduct lab projects and computer simulations, and attend field trips. Field trips may include a visit to a local wastewater treatment plant, a stream ecosystem and a prairie ecosystem. 2 hrs. lab/wk. plus up to three field trips. BIOL 131 students must be currently enrolled in BIOL 130 or have successfully completed BIOL 130 within the last three years.

BIOL 135
Principles of Cell and Molecular Biology (4 CR)
This is an integrated lecture and laboratory course for biology majors and students planning to take additional courses in biology. Subjects covered include basic biochemistry, cell structure and function, cellular metabolism, Mendelian and molecular genetics, natural selection and evolution, cell physiology and
development of plants and animals from the single-celled stage to the embryonic stage. 3 hrs. lecture, 2 hrs. lab/wk.

**BIOL 140**

**Human Anatomy** (4 CR)

Students will study gross and microscopic aspects of cells, tissues and organ systems of the human body. They will concentrate on a detailed analysis of the structure of each body system. 3 hrs. lecture, 3 hrs. lab/wk. The Open Anatomy Lab, 311 CLB, is available for students enrolled in Human Anatomy and Human Anatomy and Physiology classes at JCCC. Contact your professor, check the schedule outside of 311 CLB or call 913-469-8500, ext. 4124, for hours. A current student ID is required for using the Open Anatomy Lab.

**BIOL 144**

**Human Anatomy and Physiology** (5 CR)

This course provides basic knowledge on human structures and their function. Students will study the relationship of structures to function in the organ systems of the human body. Emphasis will be on the identification of the anatomical features and their functions. This course is integrated lecture and laboratory. 3 hrs. lecture, 4 hrs. lab/wk. The Open Anatomy Lab, 311 CLB, is available for students enrolled in Human Anatomy and Human Anatomy and Physiology classes at JCCC. Contact your professor, check the schedule outside of 311 CLB or call 913-469-8500, ext. 4124, for hours. A current student ID is required for using the Open Anatomy Lab.

**BIOL 145**

**Human Anatomy and Physiology Dissection** (1 CR)

*Prerequisites: BIOL 144 and consent of the Assistant Dean*

Students will dissect the cat and study the relationship of structures to function in the organ systems of the cat. In this laboratory course, they will also dissect the cow kidney, heart, brain and eye. Students will compare and contrast these structures and functions with the organ systems of the human body. 2 hrs. lab/wk. Students enrolling in BIOL 145 should have completed BIOL 140 or BIOL 144 and have the approval of the assistant dean.

**Associated Costs:** In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $35.

**BIOL 150**

**Biology of Organisms** (5 CR)

*Prerequisite: BIOL 135 or consent of the assistant dean*

This is a survey of the five kingdoms of life. Monera, fungi, protista, plant and animal kingdoms will be presented, with emphasis on life cycles, anatomy, physiology and ecology of the major groups. 4 hrs. lecture, 3 hrs. lab/wk.

**BIOL 155**

**Introduction to Bioethics** (3 CR)

*Prerequisite: BIOL 122 or BIOL 135 or equivalent, or permission of the assistant dean*

This course is an introductory course in ethics with an emphasis on the ethical content raised by the discipline of biology. The student will examine the major ethical theories, including deontology, act utilitarianism, rule utilitarianism, along with select others. Study of the theories will enable the analysis of case studies involving such issues as human populations problems, reproductive technologies, genetic engineering of humans and other organisms, stem cells and their use, beginning/ending of life, the human genome project, environmental impact of humans, cloning, medical and non-medical genetic interventions, and biological
ethics. 3 hrs. lecture/wk.

**BIOL 205**  
**General Genetics** *(4 CR)*  
*Prerequisite: BIOL 122 or the equivalent introductory college-level biology course*

This introductory course emphasizes human heredity using concepts from classical and modern genetics. Themes of advancing technologies and bioethical issues are interwoven in the basic background fabric of the course. 3 hrs. lecture, 2 hrs. lab/wk.

**BIOL 225**  
**Human Physiology** *(4 CR)*  
*Prerequisites: CHEM 122 and either BIOL 140 or BIOL 144 or BIOL 146*

This is an introduction to the dynamic functions of the human organism from the chemical and molecular mechanisms that sustain cellular processes through the control systems responsible for homeostasis and the influence of these systems on the cellular function of organ and systems operation. Laboratory investigation using selected biochemical and physiological preparations allows correlation of theory with experimental observations. 3 hrs. lecture, 3 hrs. lab/wk.

**BIOL 227**  
**Human Pathophysiology** *(4 CR)*  
*Prerequisites: BIOL 144 or BIOL 225*

This introduction to the physiology of disease covers common disorders of the body from the cellular to the systemic level. Topics include causes, symptoms, diagnostic tests and treatments of disease. 4 hrs. lecture/wk.

**BIOL 230**  
**Microbiology** *(3 CR)*  
*Prerequisite: CHEM 122 or one year of high school chemistry*

This is a general introductory course in microbiology. It provides a background in many areas of microbiology with an emphasis on medical aspects. The structure, physiology, antimicrobial agents, immunology and host-parasite relationship of microorganisms will be studied, with an emphasis on bacteria. 3 hrs./wk.

**BIOL 231**  
**Microbiology Lab** *(2 CR)*  
*BIOL 231 students must be currently enrolled in BIOL 230 or have successfully completed BIOL 230 within the last three years.*

Students will learn aseptic techniques and apply them in the isolation of pure cultures of bacteria. Students will also perform various staining techniques and chemical tests to identify these bacteria. The response of bacteria to changes in environmental conditions will also be examined. Various life stages of medically important parasites will also be observed. 4 hrs./wk.  
*Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $35.*

**BIOL 235**  
**General Nutrition** *(3 CR)*  
*Prerequisite: BIOL 144 or Prerequisite or corequisite: BIOL 225*

This introductory course provides a basic knowledge of human nutrition. Students will learn the sources and functions of the various nutrients. They will also explore
the interaction of diet, disease prevention and treatment. Through the use of a computerized nutrition program, students will analyze their diets for nutritional deficiencies and excesses. 3 hrs. lecture/wk.

BIOL 240
General Pharmacology (3 CR)
Prerequisite: BIOL 225
This course provides a basic understanding of the science of drugs-how they work and what they do. Students will study various drug concepts including mechanism of action, pharmacologic class, pharmaco-kinetics, pharmacodynamics and clinical implications. 3 hrs. lecture/wk. Spring.

BIOL 250
Ecology (4 CR)
Prerequisites: BIOL 122 and BIOL 123 or BIOL 130 and BIOL 131 or equivalent courses or consent of the assistant dean
This course will teach continuing science students basic ecological theories that are accepted and used by the professional ecological community. Laboratory exercises will test ecological theories by having students develop hypotheses, design experiments, collect and analyze data by using statistics that include T-tests and Kruskal-Wallis tests, and write scientifically formatted reports. 3 hrs. lecture, 3 hrs. lab/wk.

Biotechnology (BIOT)

BIOT 160
Introduction to Biotechnology (2 CR)
Prerequisite: CHEM 122 and Prerequisite or corequisite: BIOL 135 or consent of assistant dean
This course is an introduction to biotechnology, including career exploration, history and applications of DNA/RNA technology, molecular biology, and bioethics. Topics include cloning, DNA, antibodies, gene therapy, plant biotechnology, the human genome project, DNA fingerprinting, genetic testing, diverse products made through biotechnology, and the ethical implications of this technology. The course is intended for those interested in pursuing a career in an industrial, academic, or biomedical research laboratory. 2 hrs. lecture/wk.

BIOT 165
Laboratory Safety (1 CR)
Prerequisite: CHEM 122 and Prerequisite or corequisite: BIOL 135 or consent of assistant dean
This course will emphasize laboratory safety and procedures. Additionally, regulations that govern the biotechnology laboratory will be discussed. Biological, chemical and radiation safety will all be handled through lectures, videotapes, demonstrations and field trips. There will also be exposure to good manufacturing practices (GMP), quality assurance and control procedures (QA/QC), and OSHA and FDA regulations. 1 hr. lecture/wk.

BIOT 260
Biotechnology Methods (5 CR)
Prerequisite: Either BIOT 160 or BIOL 160 and either BIOT 165 or BIOL 165 and Prerequisite or corequisite: BIOL 230 or consent of assistant dean
This course is an introduction to the theory and laboratory techniques in molecular
Biology, protein biochemistry and immunology with an emphasis on gene expression and regulation, recombinant DNA, RNA transcription, and protein translation. Laboratory emphasis will be on molecular biological techniques utilized in modern research and industrial laboratories. Techniques include growth and maintenance of E. coli, gene cloning, DNA and protein electrophoresis protein purification and enzymatic and immunology assays. Lecture and laboratory exercises on the principles and practices of initiation, cultivation, maintenance, preservation of cell culture lines and applications will also be covered. 6 hrs. lab/wk.

**BIOT 265**  
**Biotechnology Internship** (4 CR)  
Prerequisites: BIOT 260 and either BIOT 160 or BIOL 160 and either BIOT 165 or BIOL 165  
The internship will provide advanced students the opportunity to develop job and career-related skills while in a work setting. Upon successful completion of this course, the student should be able to apply classroom knowledge to an actual work situation. The work will be developed cooperatively with academic, industrial and private institutional biotechnology laboratories. 20 lab hrs./wk.

**Business (BUS)**

**BUS 120**  
**Management Attitudes and Motivation** (3 CR)  
Upon successful completion of this course, the student should be able to assess personal strengths and weaknesses and set goals for personal and professional life, define communication and listening skills, analyze human relations problems, apply problem-solving strategies to human relations issues in the workplace, and define and compare management styles. Class meets for 48 hrs.

**BUS 121**  
**Introduction to Business** (3 CR)  
Upon successful completion of this course, the student should be able to explain the basic principles of the American free enterprise economic system. In addition, the student should be able to explain the fundamentals of starting a business and the interrelationship among the four functional areas: accounting, finance, management and marketing. 3 hrs./wk.

**BUS 123**  
**Personal Finance** (3 CR)  
Upon successful completion of this course, the student should be able to define the role of a consumer in the economy; develop a basic financial plan; apply budgeting procedures in a daily and monthly spending plan; calculate principal and interest; define the types of consumer credit; identify the types of housing mortgages; and explain the important considerations in buying, selling and renting. In addition, the student should be able to calculate individual insurance needs in the areas of life insurance, health insurance, property and liability insurance, automobile insurance and other types of special insurance and be able to explain employee and retirement benefits, including tax-sheltered plans. 3 hrs./wk.

**BUS 140**  
**Principles of Supervision** (3 CR)  
Upon successful completion of this course, the student should be able to define
the supervisor's role within a company and identify the skills necessary to successfully fulfill that role. In addition, the student should be able to determine the supervisor's role in supervising employees on an individual basis and as a group. The student should also be able to apply the principles of supervision in simulated work situations. 3 hrs./wk.

BUS 141
Principles of Management (3 CR)
Upon successful completion of this course, the student should be able to state the basic functions of management, explain the nature of organizations and organizational theories and types, explain the importance of effective communication within the organizational structure, develop and define the techniques for directing and motivating employees, explain the effects of change on an organization, and develop techniques for coping with those effects. In addition, the student should be able to explain and discuss the application of business ethics in managerial decision-making. 3 hrs./wk.

BUS 145
Small Business Management (3 CR)
Upon successful completion of this course, the student should be able to demonstrate an understanding of management techniques vital to small business. In addition, the student should be able to apply decision making skills in the areas of business start-up choosing the form of ownership, marketing, financial planning and managing the small business.

BUS 150
Business Communications (3 CR)
Prerequisite: ENGL 121
Upon successful completion of this course, the student should be able to explain the role of communication in the business environment and identify the most effective methods for creating, sending and receiving messages. In addition, the student should be able to use effective oral and written communication skills in business; write and evaluate business documents, including letters, memos, and reports using the principles of correct style, organization and format; and prepare an effective oral business presentation. 3 hrs./wk.

BUS 215
Savings and Investments (3 CR)
Upon successful completion of this course, the student should be able to define, analyze and evaluate types of savings instruments and other investments. In addition, the student should be able to determine which instruments are desirable for a personal financial plan. The student should also be able to demonstrate an understanding of basic financial-planning concepts and tax-planning procedures. 3 hrs./wk.

BUS 225
Human Relations (3 CR)
Upon successful completion of this course, the student should be able to evaluate the impact of human relations as it relates to the social system, technical system and administrative system of a work environment. In addition, the student should be able to analyze these systems and their effects on individual group and organizational performance. 3 hrs./wk.

BUS 230
Marketing (3 CR)
Upon successful completion of this course, the student should be able to explain the concepts of production, consumption and distribution in relation to a free enterprise economy; list the basic channels of distribution available to the manufacturer of consumer and industrial products; explain and compare the distribution functions of the manufacturer, wholesale and retailer; and state the procedures necessary to develop a total marketing plan for a given product, service or product line. In addition, the student should be able to discuss the fundamental principles of consumer behavior in the buying process and apply those principles to target market strategies. 3 hrs./wk.

BUS 235
Introduction to International Business (3 CR)
This course is designed to introduce the student to the global economy. Differences in political, economic and cultural forces within countries will be analyzed and national competitiveness assessed. Cross-border trade and investment and the global monetary system will be introduced and analyzed. Competition and a firm's international business strategy in the global marketplace will be examined. Ethical issues in international business will also be discussed. 3 hrs./wk.

BUS 240
Legal Environment of International Business (3 CR)
Prerequisite: BUS 235 and BUS 261 and BUS 263
This course provides an introduction to the legal aspects of contracts for international sale of goods. Topics include multinational enterprises, sovereignty, international finance, international transportation, international marketing, protection of intellectual property, international dispute resolution, negotiation and diplomacy. 3 hrs. lecture/wk.

BUS 243
Human Resource Management (3 CR)
Upon successful completion of this course, the student should be able to state the principles of human resource management; describe the human resource function as an integral part of management; differentiate between roles of the personnel and line manager in the management of human resources; define and evaluate strategic planning, recruitment, selection and training; define the primary methods of human resource development; employ methods of employer appraisal; and state the major components and coverages of the Equal Employment Opportunity Act and other personnel/human resource-related laws. 3 hrs./wk.

BUS 261
Business Law I (3 CR)
This course is designed to introduce the students to the American legal system. Principles of legal ethics in business will be introduced. Principles of common law of contracts will be discussed. Sections of Uniform Commercial Code as applied to the law of sales and law of negotiable instruments will be introduced. 3 hrs./wk.

BUS 263
Business Law II (3 CR)
Prerequisite: BUS 261
A continuation of Business Law I, this course will introduce the student to the principles of Uniform Commercial Code as applied to secured transactions. The law of bankruptcy, principles of agency and business organizations such as partnerships, limited partnerships, joint ventures, corporations, and sole
proprietorships will be discussed. Principles of real property, personal property, bailments, estate and trusts will be introduced. 3 hrs./wk.

**Business Logistics Management (KSCL)**

**KSCL 210**

**Logistics Management** (3 CR)

Logistics management is an integrated systems approach involving a variety of environments within a global marketplace. The course explores the logistic system from inbound movement of material and freight into the organization through physical distribution of the completed product to the consumer. Hands-on applications, activities and simulations. IAW Council of Logistics Management’s guidelines will be emphasized. 3 hrs. lecture/wk. Course taught at MCC-Blue River Community College, 20301 East 78 Highway, Independence, MO. Students should contact the Blue River coordinator of supply chain logistics about the class meeting times and beginning and ending dates of classes. Call 816-220-6532.

**KSCL 211**

**Operations Management** (3 CR)

This course covers the central role and importance of the operations function in both service and product organizations. Strategy, design, scheduling, materials handling, inventory, production, MRP and distribution are covered. 3 hrs. lecture/wk. Course taught at MCC-Blue River Community College, 20301 East 78 Highway, Independence, MO. Students should contact the Blue River coordinator of supply chain logistics about the class meeting times and beginning and ending dates of classes. Call 816-220-6532.

**KSCL 212**

**Transportation Operation and Management** (3 CR)

This course covers the significance of an integrated, well-organized transportation system to a market-driven economy. The development of the transportation system of the United States from both historic and economic perspectives is included. 3 hrs. lecture/wk. Course taught at MCC-Blue River Community College, 20301 East 78 Highway, Independence, MO. Students should contact the Blue River coordinator of supply chain logistics about the class meeting times and beginning and ending dates of classes. Call 816-220-6532.

**KSCL 213**

**Warehouse and Distribution Centers** (3 CR)

This is an integrated systems approach involving a variety of environments within a global marketplace. The course covers the organization and operations of warehouses and distribution centers. The major components are warehousing and distribution center paradigms, system design, locations, technology and financial dimensions. 3 hrs. lecture/wk. Course taught at MCC-Blue River Community College, 20301 East 78 Highway, Independence, MO. Students should contact the Blue River coordinator of supply chain logistics about the class meeting times and beginning and ending dates of classes. Call 816-220-6532.

**Business Office Technology (BOT)**

**BOT 101**

**Computerized Keyboarding** (1 CR)

Upon successful completion of this course, the student should be able to operate a computer keyboard by touch to enter data with speed and accuracy. 1 hr./wk.
BOT 103
Business English (3 CR)
Upon successful completion of this course, the student should be able to demonstrate the basic rules of English, develop correct sentence structure and use accurate English grammar and mechanics when writing documents. Students also will be able to proofread written work using standard proofreading symbols. 3 hrs. lecture/wk.

BOT 105
Keyboarding and Formatting I (3 CR)
Upon successful completion of this course, the student should be able to develop speed and accuracy by learning to use the alphabetic, numeric and symbol keys by touch; identify and operate the basic machine parts and special purpose keys; and format and type personal correspondence and business documents - letters, reports, tables and memos. Microsoft Word will be used in this class to complete and format documents. 3 hrs./wk.

BOT 106
Intro to Business Computer Applications (3 CR)
Prerequisite or corequisite: BOT 105 or keyboarding proficiency test
Upon successful completion of this course, the student should be able to use the beginning features of an operating system and word processing, spreadsheet, database management, presentation graphics, and e-mail programs to prepare and manage documents simulating legal, medical and general business office applications. Proficiency will also be attained in selecting appropriate applications to use and to integrate all of the business computer application programs to complete projects. Document formatting and proofreading will also be introduced. Hands-on, practical projects will be performed to reinforce the concepts taught. 3 hrs. lecture/wk.

BOT 110
Skillbuilding I (1 CR)
Prerequisite: BOT 105 or equivalent
Upon successful completion of this course, the student should be able to use a diagnostic approach to develop typing speed and accuracy. Specific problems will be identified, and the student should be able to complete specialized drills and activities tailored to the student’s own typing needs to improve or eliminate deficiencies. 1 hr./wk.

BOT 115
Electronic Calculators (1 CR)
Upon successful completion of this course, the student should be able to review basic arithmetic, operate the electronic calculator by touch to build speed and accuracy, use basic calculator functions and operating controls, and solve business application problems. 1 hr./wk.

BOT 118
Skillbuilding II (1 CR)
Prerequisite: BOT 110
Upon successful completion of this course, the student should further develop speed and accuracy. The student should be able to improve keyboard skills through diagnostic evaluation and by completing individualized drills and activities. 1 hr. lecture/wk.
BOT 120  
**Machine Transcription** (1 CR)  
*Prerequisite: BOT 105 or equivalent*  
Upon successful completion of this course, the student should be proficient in transcribing a variety of business documents from machine transcription. Emphasis is placed on operation of transcription equipment; development of speed and accuracy in transcription; and developing English, proofreading and formatting skills. 1 hr./wk.

BOT 122  
**Medical Keyboarding** (1 CR)  
*Prerequisite: BOT 105*  
Upon successful completion of this course, the student should be able to develop keyboarding speed and accuracy in medical formats. The student should also be able to improve keyboard skills by completing drills and activities pertaining to the transcription of medical reports. 1 hr. lecture/wk.

BOT 125  
**Document Formatting** (1 CR)  
*Prerequisite: BOT 155*  
Upon successful completion of this course, the student should be able to type business letters with special features, memorandums, reports, tables and a variety of administrative documents. The student should also be able to use Microsoft Word to complete these activities. 1 hr./wk.

BOT 130  
**Office Systems Concepts** (3 CR)  
Upon successful completion of this course, the student should be able to understand and apply technological factors of contemporary office systems. Implementation of office automation concepts will be examined as they relate to people, technology and organizations. These concepts will be applied to organizational and strategic planning to enhance productivity in the office. 3 hrs./wk.

BOT 150  
**Records Management** (3 CR)  
Methods for developing and controlling an office records management program will be discussed. Selection of equipment for active and inactive records will be covered, along with procedures for document, card and special records; microrecords; mechanized and automated records; and records storage, retention and transfer. Upon successful completion of this course, the student should be able to file documents using alphabetic, subject, consecutive numeric, terminal digit numeric and geographic filing systems using requisition charge out and transfer procedures. The student should be able to create a computer database for records management; enter, modify and delete records; print reports; and determine disposition of records filed alphabetically, numerically, by subject and geographically. The course will cover the identification of evaluation methods and standards for both staff and programs in a records management department. 3 hrs./wk.

BOT 155  
**Word Processing Application I** (2 CR)  
*Prerequisite: BOT 105 or equivalent and BOT 106*  
Upon successful completion of this course, the student should be able to
demonstrate skill in creating, saving, opening, closing, printing and editing documents. The student should be able to use beginning and intermediate features of Microsoft Word. The student should be able to demonstrate file maintenance procedures. 2 hrs. lecture/demonstration/wk.

BOT 160
Legal Transcription (3 CR)
Prerequisite: BOT 155 or equivalent
Upon successful completion of this course, the student should be able to demonstrate skill in spelling, defining, pronouncing and using legal terms in proper context. The student should also be able to use legal reference resources and transcribe legal documents from dictation using proper formatting rules. 3 hrs./wk.

BOT 165
Medical Transcription (3 CR)
Prerequisites: AAC 130 and BOT 155 or equivalent
Upon successful completion of this course, the student should be able to transcribe medical reports using proper formats and transcription rules. These reports concern in-patients with a specific medical problem. Reports include history and physical examinations, radiology reports, operative reports, pathology reports, requests for consultation, death summaries, discharge summaries and autopsy reports. Students should be able to spell, define, pronounce and use medical terms in proper context and be able to use medical reference books. 3 hrs./wk.

BOT 170
Medical Coding and Billing (3 CR)
Prerequisite: AAC 130
This course is designed to give the student an overview of the medical insurance billing process. This includes becoming acquainted with ICD-9, HCPCS and CPT procedural coding systems as well as Blue Cross/Blue Shield, Medicaid, Medicare and Champus/Champva programs. Students will be given hands-on coding advice for optimal insurance reimbursement. 3 hrs. lecture/wk.

BOT 175
Conflict in the Workplace (1 CR)
Upon successful completion of this course, the student should be able to develop the knowledge, skills, process and understanding of good working relationships in an office environment. The student will also be able to recognize and understand behavior patterns and what work-related events might trigger workplace conflict. Strategies will be developed for dealing with conflict and difficult people. 1 hr. lecture/wk.

BOT 180
Business Spreadsheet Applications (1 CR)
Prerequisite: BOT 106 or CPCA 110 or extensive experience using Windows-based spreadsheets
Upon successful completion of this course, the student should be able to demonstrate competencies in using advanced formatting techniques, advanced features and advanced functions of Microsoft Excel. The following topics will be covered: working with templates, workbooks and lists; using Excel's analysis tools; managing and auditing worksheets; collaborating with workgroups; creating and editing macros; and importing and exporting data. 1 hr. lecture/wk.
BOT 185
**Business Database Applications** (1 CR)
*Prerequisite: BOT 106 or CPCA 114 or extensive experience using Windows-based databases*

Upon successful completion of this course, the student should be able to demonstrate database development skills by effectively identifying the types of projects that should be developed using Microsoft Access rather than a spreadsheet; build tables that can be related to each other in order to eliminate data entry duplication; customize forms and reports; create basic and advance queries; and define relational integrity between tables. The student should also be able to create basic and advanced queries with single and multiple tables using Boolean logic. The student should be able to identify and implement methods of troubleshooting and explain ways of getting additional help. 1 hr. lecture/wk.

BOT 205
**Professional Image Development** (1 CR)

Upon successful completion of this course, the student should be able to develop work habits and self-management skills that will affect performance on the job by reducing stress, conflict and miscommunication. 1 hr. lecture/wk.

BOT 210
**Working in Teams** (1 CR)

Upon successful completion of this course, the student should possess the necessary skills to work in teams. Students should also be able assess and adjust their perceptions of how they should communicate within a team environment and to assess their own workplace expectations, values and methods of communicating as a basis for understanding how to improve communication with others to achieve a common goal. 1 hr. lecture/wk.

BOT 220
**Pharmacology Terminology** (2 CR)
*Prerequisite: AAC 130*

Upon successful completion of this course, the student should be able to use pharmacological terminology in an appropriate context. This course includes an investigation of medication actions, dosage forms, routes of administration and uses. The course emphasizes the terminology necessary for transcription of medical reports. 2 hrs. lecture/wk.

BOT 255
**Word Processing Applications II** (2 CR)
*Prerequisite: BOT 155 or extensive experience using the same software with approval of the program facilitator*

Upon successful completion of this course, the student should be able to demonstrate word processing skills using such features as macros, styles, tables of contents and indexes, graphics, master and subdocuments, and other advanced features of Microsoft Word. 2 hrs. lecture-demonstration/wk.

BOT 260
**Desktop Publishing for the Office** (3 CR)
*Prerequisite: BOT 155 or the equivalent*

Upon successful completion of this course, the student should be able to use desktop publishing skills using PageMaker 7.0 to produce publications such as fliers, newsletters, brochures, operating manuals, price lists and bulletins. 3 hrs. lecture/demonstration/wk.
BOT 265
Computerized Office Applications (3 CR)
Prerequisites: Both CPCA 110 and CPCA 114 or BOT 106 and also CPCA 141 and BOT 255 and BOT 130 (This capstone course should be taken near the end of the degree or certificate program)
Upon successful completion of this course, the student will be able to use the basic features of word processing, database, spreadsheet and presentation applications. The student will also use advanced features to complete simulated office applications and to perform multitasking projects. 3 hrs./wk.

BOT 270
Advanced Medical Transcription (3 CR)
Prerequisite: BOT 165
Upon successful completion of this course, the student will develop medical transcription skills with emphasis on additional speed and accuracy. Students will apply language skills, decision-making skills and “common-sense” skills during the transcription process. Students will become familiar with the medical transcription profession, employment opportunities, the important role of the medical transcriptionist in the health care team, and personal attributes, knowledge and skills required to produce error-free documents according to the employer’s and AAMT standards. 3 hrs. lecture/wk.

BOT 275
Office Internship I (1 CR)
Prerequisite: Admission to the business office technology program
The student should be able to gain work experience in an approved training station under instructional supervision in Administrative Assistant, Medical, Legal, or Certificate Programs. The course will provide practical experience in the use of skills acquired in Business Office Technology specialty courses. The internship will require a minimum of 185 hours of job training.

BOT 280
Office Internship II (1 CR)
Prerequisite: BOT 275
The student should be able to gain work experience in an approved training station under instructional supervision in Administrative Assistant, Medical, Legal, or Certificate Programs. The course will provide practical experience using skills acquired in Business Office Technology courses. The internship will require a minimum of 185 hours per semester job training.

Chemistry (CHEM)

CHEM 120
Chemistry in Society (4 CR)
This course is designed for non-science majors who seek an understanding of the concepts of chemistry. Historical foundations of chemistry, applications to society and daily life, controversies of contemporary concern and current research topics are explored. Inquiry-based laboratory experiments will illustrate chemical principles. 3 hrs. lecture, 2 hrs. lab/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $60.

CHEM 122
Principles of Chemistry (5 CR)
This course is an introduction to the fundamentals of chemistry, with emphasis on general concepts of inorganic chemistry and sufficient study of organic chemistry to introduce the student to biochemistry. The student will learn basic definitions and theories of chemistry, solve numerical problems related to chemical principles and apply chemical concepts in laboratory work. 4 hrs. lecture, 3 hrs. lab/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $60.

**CHEM 124**
*General Chemistry I Lecture* (4 CR)
Prerequisite or corequisite: MATH 171 or assessment test and Corequisite: CHEM 125

Students will relate atomic structure to chemical systems, calculate the amount of material used in chemical reactions, use the periodic table as an aid to understanding chemical systems and interpret chemical reactions. 4 hrs./wk.

**CHEM 125**
*General Chemistry I Lab* (1 CR)
Prerequisite or Corequisite: CHEM 124 Students who withdraw from GENERAL CHEMISTRY I LECTURE must also withdraw from the corresponding laboratory GENERAL CHEMISTRY I LABORATORY. Students may not withdraw from the laboratory course GENERAL CHEMISTRY I LABORATORY without withdrawing from CHEMISTRY I LECTURE.

Experiments of a qualitative and quantitative nature that support topics from General Chemistry I Lecture will be carried out. 3 hrs./wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $60.

**CHEM 131**
*General Chemistry II Lecture* (4 CR)
Prerequisite: CHEM 124 and CHEM 125 Corequisite: CHEM 132

Chemistry 131 is the second semester of a two-semester course in general chemistry in which the student will develop a working knowledge of some of the fundamental concepts and quantitative relationships involved in the study of chemical reactivity. Topics include solutions, chemical kinetics, chemical equilibrium, acid-base chemistry, chemical thermodynamics, electrochemistry, and nuclear chemistry. 4 hrs./wk. CHEM 131 students are required to enroll concurrently in CHEM 132.

**CHEM 132**
*General Chemistry II Lab* (1 CR)
Prerequisite: CHEM 124 and CHEM 125 Corequisite: CHEM 131 Students who withdraw from GENERAL CHEMISTRY II LECTURE must also withdraw from the corresponding laboratory GENERAL CHEMISTRY II LABORATORY. Students may not withdraw from the laboratory course GENERAL CHEMISTRY II LABORATORY without withdrawing from CHEMISTRY II LECTURE.

The laboratory consists of qualitative and quantitative experiments designed to parallel and support General Chemistry II Lecture. 3 hrs./wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $60.

**CHEM 140**
*Principles of Organic & Biological Chemistry* (5 CR)
Prerequisite: BIOL 135 or permission of the assistant dean and CHEM 122 or permission of the assistant dean

This course covers nomenclature, theory and applications of basic organic chemistry and biochemistry in the area of carbohydrates, lipids, proteins and
enzymes. The lab activities reinforce the topics presented in the lecture. 4 hrs. lecture, 3 hrs. lab/wk.

**Associated Costs**: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $80.

**CHEM 220**

**Organic Chemistry I** (5 CR)

*Prerequisite: CHEM 131 and CHEM 132*

Organic Chemistry I is an introduction to the theories and principles of the chemistry of carbon compounds. The student will develop an understanding of organic chemistry, which will be useful in the studies of chemistry and related fields such as medicine, engineering and pharmacy. The laboratory is supportive in nature, with a strong emphasis on developing laboratory techniques. Representative compounds will be prepared and used to introduce the student to instrumental analysis. 3 hrs. lecture, 6 hrs. lab/wk.

**Associated Costs**: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $80.

**CHEM 221**

**Organic Chemistry II** (5 CR)

*Prerequisite: CHEM 220*

Organic Chemistry II is a continuation of Organic Chemistry I, the nomenclature, principles and theories of organic chemistry, with emphasis on electronic theories and reaction mechanisms. Laboratory is supportive in nature with emphasis on developing laboratory techniques and preparation of representative compounds. Organic Chemistry II completes the study of organic chemistry designed to prepare the student for continued work in chemistry and related fields. 3 hrs. lecture, 6 hrs. lab/wk.

**Associated Costs**: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $80.

**CHEM 250**

**Biochemistry** (4 CR)

*Prerequisite: CHEM 131 and CHEM 132 and CHEM 140 or CHEM 220*

This course is an introduction to the major topics in biochemistry. Topics include the major classes of biological molecules, such as proteins, lipids and nucleic acid; an overview of the major metabolic pathways; and developments and topics relating to molecular biology. 4 hrs. lecture/wk.

**CHEM 251**

**Biochemistry Laboratory** (2 CR)

*Prerequisite: CHEM 131 and CHEM 132 and CHEM 140 or CHEM 220
Corequisite: CHEM 250*

The laboratory will consist of qualitative and quantitative experiments using biological molecules. Particular emphasis upon biochemistry laboratory techniques, including chromatography and spectroscopy, will be used. 3 hrs. lab, 1 hr. recitation/wk.

**Associated Costs**: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $60.

**Civil Engineering Technology (CET)**

**CET 105**

**Construction Methods** (3 CR)

This course introduces the student to the terms, methods, procedures, sequences of operation, and types of construction and planning in civil and building construction. This course is typically offered the first half of each semester. 3
CET 120
Engineered Plumbing Systems I (3 CR)
Upon successful completion of this course, the student should be able to use codes and engineering principles and design engineering practices to analyze and design basic plumbing systems. Topics covered include codes, materials, hangers, supports, and expansion and contraction. Plumbing systems covered include fuel gas, domestic water and soil waste/vent. The student should also be able to interpret drawings related to plumbing technology. 3 hrs. lecture/wk.

CET 122
Engineered Plumbing Systems II (3 CR)
Upon successful completion of this course, the student should be able to describe storm water, industrial wastes, compressed air and irrigation and fire sprinkler systems. Topics include water treatment, noise control, decorative pools, pumps, estimating, specifications and field inspection. 3 hrs. lecture/wk.

CET 125
Construction Specifications (2 CR)
Prerequisite: CET 105 or equivalent
Upon successful completion of this course, the student will be able to describe the phases of a project, identify the bidding requirements, explain contractual relationships between parties, categorize the drawings, write specifications, list warranties and explain contract modifications. This course is typically offered in the fall semester. This course is typically offered the second half of the fall semester. 2 hrs. lecture/wk.

CET 127
Construction Estimating (3 CR)
Prerequisite: DRAF 129 or competence in reading building drawings
This course introduces the student to the basic principles of construction estimating. Topics covered include estimating quantities of material from drawings and using reference books, tables and the C.S.I. format. Students will use industry-standard software for construction estimating. This course is typically offered in the fall semester. 2 hrs. lecture and 3 hrs. lab/wk.

CET 129
Construction Management (3 CR)
This course is intended for students interested in learning management principles for construction projects. Upon successful completion of this course, the student should be able to perform many processes associated with construction projects and complete forms typically used in project management. Topics include contract documents, scheduling, job costs and management issues. Project management software will be used to schedule and track project resources and progress. This course is typically offered in the spring semester. This course is typically offered in the spring semester. 2 hrs. lecture, 3 hrs. lab/wk.

CET 133
Concrete Testing (2 CR)
This course covers the principles of making and testing concrete. The emphasis will be on allowing concrete to reach the highest level of durability through proper mix design, placing and finishing techniques, and curing methods. This course
will help prepare the student for ACI National Certification exam. This course is
typically offered in the spring semester. 1.5 hrs. lecture, 1 hrs. lab/wk.

CET 140
Civil Engineering Materials (3 CR)
Corequisite: MATH 133
Upon successful completion of this course, the student will be able to analyze
materials commonly used in civil engineering construction projects. Common
properties of soil, concrete and asphalt will be studied for classification as
engineering materials. Students will learn to perform typical materials tests in
accordance with ASTM guidelines. This course is typically offered in the spring
semester. 2 hrs. lecture, 3 hrs. lab/wk.

CET 150
Construction Safety (3 CR)
This course introduces the student to construction safety policies, procedures,
and standards. Topics include safety theories and concepts, OSHA
(Occupational Safety and Health Administration) construction standards for safety
and health, and safety application on the job site. Special emphasis is placed on
those areas that are the most hazardous, using OSHA standards as a guide. 3
hr. lecture/wk.

CET 211
Technical Statics and Design (3 CR)
Prerequisite: MATH 134 or MATH 172 or MATH 173 or MATH 241
Upon successful completion of this course, the student should be able to evaluate
and design force systems in equilibrium. Topics include truss analysis, stress and
strain, shear, loading conditions, steel member selection, and connection design.
Computer applications are included. This course is typically offered in the fall
semester. 3 hrs. lecture/wk.

CET 270
Fluid Mechanics (3 CR)
Prerequisites: MATH 172 or MATH 134
Upon successful completion of this course, the student should be able to analyze
fluid systems using the fundamental properties of pressure, hydrostatic force,
buoyancy, flow in pipes, open channel flow and hydrology. The student should
also be able to solve practical problems related to engineering technology.
Computer applications will be included. This course is typically offered in the
spring semester. 3 hrs. lecture/wk.

Computer Desktop Publishing (CDTP)

CDTP 131
Desktop Publishing I: QuarkXpress (1 CR)
Prerequisite: CPCA 105 or CPCA 106 or CIS 124 or DP 124 or CPCA 128 or an
appropriate score on an assessment test
In this career-related course, students will create page layout documents using a
variety of basic techniques on either the Macintosh or PC computer platform.
Students will produce text material with complex tabs and indents and style
attributes. Students will also be able to group and distribute multiple elements,
demonstrate a basic proficiency with drawing tools, multiple document work, drop
caps, text rotation, locking items and threading text blocks. 1 hr. lecture/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $15 to 90.

**CDTP 135**  
Desktop Photo Manipulation I: Photoshop (1 CR)  
*Prerequisites: CPCA 105 or CPCA 106 or CIS 124 or DP 124 or CPCA 128 or an appropriate score on an assessment test*

This course is designed to explore the manipulation of digital photographs using a variety of techniques and tools. The application of painting and editing tools to digital images; the manipulation of selections, layers and resolution; and analyzing scanned images will be covered. 1 hr. lecture/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $15 to 90.

**CDTP 140**  
Desktop Publishing I: InDesign (1 CR)  
*Prerequisites: CPCA 105 or CPCA 106 or CIS 124 or DP 124 or CPCA 128 or an appropriate score on an assessment test*

In this career-related course, students will create page layout documents using a variety of basic techniques on either the Macintosh or PC computer platform. Students will produce text material with complex tabs and indents and style attributes. Upon successful completion of the course, students will also be able to group and distribute multiple elements and demonstrate a basic proficiency with drawing tools, multiple document work, drop caps, text rotation, locking items and threading text blocks. 1 hr. lecture/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $15 to 90.

**CDTP 145**  
Desktop Illustration I: Illustrator (1 CR)  
*Prerequisite: CPCA 105 or CPCA 106 or CIS 124 or DP 124 or CPCA 128 or an appropriate score on an assessment test*

In this career-related course, students will create basic computer-generated illustrations using a variety of techniques on either the Macintosh or Windows PC computer platform. Students will draw simple paths and shapes, create layers, import graphics and add typographic elements in rows and columns with runarounds, baseline shifts and conversion to outlines. 1 hr. lecture/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $15 to 90.

**CDTP 151**  
Desktop Publishing II: QuarkXpress (1 CR)  
*Prerequisite: CDTP 131*

This course concentrates on text-handling skills, including converting text to graphics, super step and repeat, layering, Bezier paths, merge functions, repurposing files for Web viewing, creating encapsulated postscript graphic files from text, creating books with lists, and the basics of production preparation using spot colors. Demonstrations are given for embossing, drop shadow techniques and converting styles. 1 hr. lecture/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $15 to 90.

**CDTP 155**  
Desktop Photo Manipulation II: Photoshop (1 CR)  
*Prerequisite: CDTP 135*

This course presents advanced techniques of Photoshop. Topics covered include creating and manipulating text, importing existing images and creating new images. Other topics will include applying filter effects, correcting color, retouching and repairing images, adding special effects and preparing art for the
Web. Students will explore solutions to specific Photoshop problems and will plan and create individual projects. 1 hr. lecture-demonstration/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $15 to 90.

CDTP 160
Desktop Publishing II: InDesign (1 CR)
Prerequisite: CDTP 140
In this career-related course, students will create intermediate-level page layout documents using a variety of techniques on either the Macintosh or PC computer platform. Students will learn how to work with type styles, threads, columns, special characters, hanging indents, vertical spacing and tables as well as exploring PDF files. Students will also be able to master several aspects of working with graphic images: placing images, linking, clipping paths, libraries, grids, Bezier drawing, compound paths and reflections. Finally, students will work with advanced framing techniques to nest frames within shapes. 1 hr. lecture/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $15 to 90.

CDTP 165
Desktop Illustration II: Illustrator (1 CR)
Prerequisite: CDTP 145
In this career-related course, students will create intermediate-level computer-generated illustrations using a variety of techniques on either the Macintosh or PC computer platform. Students will trace an object, create complex gradients with custom blends, create complex objects receding toward a vanishing point, and create an orthogonal projection to simulate depth. 1 hr. lecture /wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $15 to 90.

CDTP 171
Desktop Publishing III: QuarkXpress (1 CR)
Prerequisite: CDTP 151
In this career-related course, students will create several brochure layouts on either the Macintosh or PC computer platform that incorporate a variety of drawing techniques, including layering, blends, distribution, EPS files, Bezier shapes, merge shapes and multi-ink colors. Pre-press production for final art will also be covered. 1 hr. lecture/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $15 to 90.

CDTP 175
Desktop Photo Manipulation III: Photoshop (1 CR)
Prerequisite: CDTP 155
This course presents advanced techniques for using Photoshop. Advanced topics include painting techniques, photographic techniques, image manipulation techniques, and composing techniques. Airbrushing, blending modes, channels, clipping groups, colorizing, filters, gradients, layer effects, masks and modes, levels, lighting effects, masking, perspective and depth, posterizing, restoration, retouching, texturizing and tiling are techniques that will be covered. Students will explore and apply solutions to specific Photoshop problems by creating individual projects. 1 hr. lecture/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $15 to 90.

CDTP 180
Photoshop for the Web: Photoshop and Image Ready (1 CR)
Prerequisite: CDTP 155
This course is designed to explore the preparation of digital photographs and images for the Web using a variety of techniques and tools. Optimizing images for the Web, creating Web graphics using slices and rollovers, designing Web pages using multiple Adobe programs (Adobe Acrobat and Adobe GoLive), and creating animated images for the Web will be covered. 1 hr. lecture/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $15 to 90.

CDTP 185
Desktop Illustration III: Illustrator (1 CR)
Prerequisite: CDTP 165

In this career-related course, students will create advanced computer-generated illustrations using a variety of techniques on either the Macintosh or PC computer platform. Students will create charts, autotrace scanned images, fill objects with various pen-and-ink filter effects and create an image map for the Web. 1 hr. lecture/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $15 to 90.

Computer Forensics (CFOR)

CFOR 150
Introduction to Computer Forensics (3 CR)
Prerequisite: CIS 134 and CPCA 139

In this course, students are introduced to computer forensics and incident response essentials. This course shows the student how to collect and analyze the digital evidence left behind in a digital crime scene. Computer forensics, the newest branch of computer security, focuses on the aftermath of a computer security incident. The goal of computer forensics is to conduct a structured investigation to determine exactly what happened and who was responsible and to perform the investigation in such a way that the results are useful in a criminal proceeding and to lay the foundation for further study of computer forensics. Prior to attending the course, students will be required to complete a background check through Clarence M. Kelly and Associates at their own expense. To receive information on "how to apply for a background check," please send an email to Ginger Henderson ghenderson@jccc.edu or Lori Betten lbetten@jccc.edu with "Background Check" as the subject. 3 hrs. lecture/wk.

Computer Information Systems (CIS)

CIS 124
Introduction to Computer Concepts and Applications (3 CR)

In this introductory, nontechnical computer course, students study computing concepts, terminology, issues and uses. Extensive hands-on experience with the microcomputer is provided using business applications and the operating system to reinforce the concepts. 3 hrs. lecture/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 15.

CIS 134
Programming Fundamentals (4 CR)

At the completion of this course, the student should be able to use the elementary concepts of computers, including several number systems. In addition, students will design, develop and write modular programs on a microcomputer in a structured programming language using standard structured concepts. 3 hrs. lecture, 2 hrs. lab by arrangement/wk.
CIS 138
Visual Basic .Net (4 CR)
Prerequisite: CIS 134
Upon successful completion of this course, students should be able to describe the Visual Basic programming environment, identifying the controls and objects available for creating .NET applications. Students should be able to define the basic terminology used by Visual Basic. They will create forms, draw the controls for each form, design menu bars, set form and control properties, write event and general procedures, and test and debug their applications. 3 hrs. lecture, 2 hrs. lab by arrangement/wk.

CIS 140
Editor for COBOL (1 CR)
Prerequisite: CIS 134
In this introductory course, students will focus on using an editor to create and manipulate files on a computer. They also will submit computer programs for execution. 1 hr. lecture, lab/wk.

CIS 145
Assembler Language for Microcomputers (4 CR)
Prerequisite: CIS 134 or ENGR 171 or the equivalent experience. It is recommended that this course be taken after completion of CS200 or an equivalent programming course beyond Programming Fundamentals or Programming for ENGR & Science.
Students will study and use assembler language for the microcomputer in order to understand the basic concepts of the personal computer and its use in problem solving. Topics include the microcomputer CPU, registers and memory segmentation. Practical applications include DOS and BIOS systems services, array and bit processing, and library calls. 3 hrs. lecture, 2 hrs. lab by arrangement/wk.

CIS 148
COBOL I (4 CR)
Prerequisite: CIS 134 Corequisite: CIS 140
Students will study the use of the COBOL programming language by writing programs in COBOL in a mainframe environment. Emphasis will be on function and use of statements in the four divisions of ANSI COBOL. 3 hrs. lecture, 2 hrs. lab by arrangement/wk.

CIS 150
Assembler Language I (4 CR)
Prerequisite: CIS 134 Corequisite: CIS 140. It is recommended that this class be taken after CIS 148.
Students will write programs using assembler language in order to understand the basic concepts of the IBM mainframe. Topics include CPU, registers and memory fetching. Practical applications include I/O, array processing and bit manipulation. 3 hrs. lecture, 2 hrs. lab by arrangement/wk.

CIS 162
Database Programming (4 CR)
Prerequisite: CIS 134 or the equivalent
This course covers the use of an interactive environment and programming language to create, maintain and manipulate databases using Access as the
RDBMS. The use of a command-level database programming language to customize business systems and selectively retrieve information using single or multiple database tables also will be studied. 3 hrs. lecture, 2 hrs. lab by arrangement/wk.

CIS 204
UNIX Operating System (3 CR)
Prerequisite: CS 200 or CS 205 or CS 201 and CPCA 139
This course will cover the concepts and principles of the multi-user, multi-tasking UNIX operating system. Students will complete projects in UNIX ranging from using simple commands to writing shell scripts automating repetitive tasks. 3 hrs. lecture/wk.

CIS 206
Programming in PERL (4 CR)
Prerequisite: CS 200 or CS 205 or CS 201 and CPCA 139
This course is an in-depth introduction to the Perl scripting language. Students successfully finishing the course should be familiar with the most common operations and language idioms used in Perl programs and should be able to produce useful Perl scripts. In addition, students will have been introduced to the more powerful and rich elements of the language. Lectures and lab projects will cover the many features of the Perl language. 3 hrs. lecture, 1.5 hrs. lab/wk.

CIS 215
OS/VS Job Control Language (3 CR)
Prerequisite: CIS 148 or CIS 150
Students will study the use of OS/VS JCL and typical applications. Emphasis will be on rules of coding JCL, optimizing resources, use of symbolic parameters and overriding statements. An IBM mainframe will be used in the application of JCL and utilities. 3 hrs. lecture/wk.

CIS 235
Object-Oriented Programming Using C++ (4 CR)
Prerequisite: CS 200 using C++
This course is intended to prepare students to apply the object-oriented programming paradigm to solve typical business problems. The student should work with container classes such as Linked Lists, Trees, Stacks and Queues as tools in their program solutions. Students will be building application-oriented objects using the concepts of inheritance, function overloading and polymorphism. Students will also apply techniques of dynamic memory to build arrays and objects that can adjust memory requirements at run time. Students will be exploring the object-oriented and I/O capabilities as well as the string processing capabilities of the object-oriented language. 3 hrs. lecture, 2 hrs. lab by arrangement/wk.

CIS 238
Visual Basic Intermediate Topics (4 CR)
Prerequisite: CIS 138
Upon successful completion of this course, students should be able to write and test a Visual Basic program that uses the ADO.NET to access a local database. They will identify the commands necessary to open, display and maintain the database. They will correctly use Visual Basic keystroke events to edit and control input to the database. Students will use the Try Catch Error trapping structures to create robust projects. Students will generalize code for reuse. They will create a
.Net component to coordinate a TextBox and ListBox that can be deployed from the ToolBox. 3 hrs. lecture, 2 hrs. lab by arrangement/wk.

CIS 240
Advanced Topics in JAVA I (4 CR)
Prerequisite: CS 250 or CIS 235 or CS 255
At the completion of this course, the student should be able to create Java applications and applets appropriate for implementation on the Internet and World Wide Web. The student will complete projects using Java's built-in features. The course will include graphics, graphical user interfaces, exception handling, multi-threading and interactive media. 3 hrs. lecture, 2 hrs. lab/wk.

CIS 242
Introduction to System Design and Analysis (3 CR)
Prerequisite: CIS 138 or DP 138 or CS 200 or CS 201 or CS205
Students will study the basic philosophy and techniques of developing and using business information systems. The emphasis will be on the human involvement necessary in systems design and implementation. The course will address the use of specific technical approaches available in information processing. 3 hrs. lecture/wk.

CIS 243
Object-Oriented Analysis and Design (4 CR)
Prerequisite: One programming course using an object-oriented programming language or equivalent experience
This course includes information and materials that will introduce the student to an object-oriented analysis and design methodology suitable for designing systems that can be implemented in any object-oriented programming language. Experience in using specific techniques and tools will be gained through the completion of real-world projects. 3 hrs. lecture, 2 hrs. lab by arrangement/wk.

CIS 244
Advanced Topics in C# I (4 CR)
Prerequisite: CS 250 or CIS 235 or CS 255
At the completion of this course, the student should be able to create C# applications appropriate for implementation on the .NET platform. The student will complete projects using C#'s built-in features. The course will include graphics, graphical user interfaces, exception handling, multi-threading and database access. 3 hrs. lecture and 1.5 hrs lab/wk.

CIS 248
COBOL II (4 CR)
Prerequisite: CIS 148
In this advanced COBOL programming class, students will use ANSI COBOL to solve problems with data on a direct access device. They will work on methods for building, maintaining and using files in a sequential, random and indexed manner. They also will study the sort feature of COBOL. 3 hrs. lecture, 2 hrs. lab by arrangement/wk.

CIS 253
CICS (4 CR)
Prerequisite: CIS 248
This is an introduction to command-level CICS using the COBOL language. The class will cover basic CICS commands and their uses as well as CICS management modules and their functions, including program control, terminal control, basic mapping support, file control and temporary storage. Debugging on the transaction level will be discussed. 3 hrs. lecture, 2 hrs. lab by arrangement/wk.

CIS 254
UNIX System Administration (4 CR)
Prerequisite: CIS 204
This course is designed to present the skills and provide the hands-on experience required to be a Unix system and Web administrator. Typical system administration duties to be covered include installation, backup, restoration and routine maintenance, including adding/removing users, managing system resources, monitoring and optimizing system activity, and automating activities. Typical Web administration duties to be covered include installation and management of a relational database management system, installation and management of a Web server and an FTP server, kernel recompiling relevant to Web technology, and audio/video streaming. 3 hrs. lecture, 2 hrs. lab/wk.

CIS 258
Operating Systems (3 CR)
Prerequisite: CIS 145 or CIS 148 or CIS 150 or CS 200
The basic concepts and principles of a digital computer operating system will be explained. Also explored through a study of a typical digital computer operating system will be the relationships between hardware and software. 3 hrs. lecture/wk.

CIS 260
Database Management (4 CR)
Prerequisite: CS 250 or CS 255 or CIS 235 or CIS 238 or CIS 248
Characteristics and objectives of database management systems (DBMS) versus traditional file management systems are discussed. Topics include relational, hierarchical and network models; data modeling using entity-relational model; normalization to avoid modification anomalies; and operational considerations of a relational database. Students will create and use a relational DBMS (currently Oracle) and a Standard Structured Query Language (SQL). SQL*Plus and embedded SQL will be used in programs. 3 hrs. lecture, 2 hrs. lab/wk.

CIS 262
Project Management (3 CR)
Prerequisite: CIS 242
This course will prepare students to effectively manage projects, with a focus on information systems (IS) projects. Topics include project management terminology, project manager roles, project success factors, integration, scope, time, cost, quality, human resources, communications, risk, professional responsibility and procurement management. Using case studies, students will plan, schedule, execute and control projects, modifying their timelines and resource allocations as required. 3 hrs. lecture/wk.

CIS 264
Application Development and Programming (4 CR)
Prerequisite: CIS 242 and either CIS 260 or CIS 162 Prerequisite or Corequisite:
CIS 238 or CIS 253 or CIS 269 or CIS 240 and CIS 262

This course is designed for students to apply the foundations of systems analysis and design, database design and programming to a significant information system. Students should work within a team to analyze a problem, develop and present a proposed information system solution, build a demonstrable prototype of the system and develop a significant portion of the system. Students should also develop a project schedule and present progress information to the class. Students should also develop job search skills and both written and oral communication skills. 3 hrs. lecture, 2 hrs. lab by arrangement/wk.

CIS 269
GUI Programming (4 CR)
Prerequisite: CIS 235 or CS 250

Upon completion of this course, students should be able to demonstrate applications in the graphical user interface (GUI) programming language and use the appropriate GUI library. Techniques of object-oriented programming developed in CIS 235 will be applied to problems involving user interaction. The common user access (CUA) standards of GUI programming will be used throughout the course. The message queue and ordered linked lists objects used in CIS 235 will be applied to problems involving user selection and updating information in a database. Students will make extensive use of the application framework for the GUI environment provided by the GUI language compiler. It is strongly recommended that students be familiar with common user programs that run under the chosen operating system (Windows, OS/2, X-Windows) before taking this course. 3 hrs. lecture, 2 hrs. lab by arrangement/wk.

CIS 270
Information Systems Internship (3 CR)
Prerequisites: CS 250 or CS 255 or CIS 235 or CIS 238 or CIS 248 and program facilitator approval

Students will work in an approved training situation under instructional supervision. The internship is designed to give the student the opportunity to use the skills learned in information systems courses. Fifteen hours on-the-job training per week will be the usual workload for the student.

CIS 275
Web-Enabled Database Programming (4 CR)
Prerequisites: CS 200 or CS 201 or CS 205 or CIS 162 and either CPCA 139 or CIS 204 and either CPCA 161 or CPCA 158

At the completion of this course, the student should be able to create dynamic Web pages containing information accessed from a database for implementation on the Internet and World Wide Web. The student will complete projects using Dynamic HTML and a scripting language that can interface with a database. The course will include graphics, graphical user interfaces, exception handling, database and interactive media. 3 hrs. lecture, 2 hrs. lab/wk.

CIS 277
Active Server Pages.Net (4 CR)
Prerequisites: CS 200 or CS 201 or CS 205 or CIS 162 and either CPCA 139 or CIS 204 and either CPCA 161 or CPCA 158

At the completion of this course, the student should be able to create dynamic Web pages containing information accessed from a database for implementation on the Internet and World Wide Web. The student will complete projects using ASP.Net objects, dynamic HTML and a scripting language that can interface with a database. The course will include graphics, graphical user interfaces, exception handling, database and interactive media. 3 hrs. lecture, 2 hrs. lab/wk.
CIS 279
Enterprise GUI Programming in C++ (4 CR)
Prerequisite: CIS 243 and CIS 269 and CIS 260
Students will learn advanced programming techniques for Windows, including enterprise software tools, advanced user-interface techniques, multimedia, ActiveX and Internet programming. The course project provides students with real-world development experience covering analysis, design and implementation of a large-scale development project using an object-oriented software development methodology, version control technique, advanced testing techniques, defect-tracking and technical documentation. 3 hrs. lecture, 2 hrs. lab/wk.

CIS 280
Advanced Topics in JAVA II (4 CR)
Prerequisite: CIS 240
At the completion of this course, the student should be able to create Java applications and applets that link to databases and provide the security and advanced GUI features appropriate for implementation on the Internet and World Wide Web. The student will complete projects using Java's built-in features. The course will include techniques for graphics optimization, building components for graphical user interfaces, client-server database connections in Java, handling security managers, building JAR files, using Java's remote objects and linking to other applications. 3 hrs. lecture, 2 hrs. lab/wk.

Computer Personal Computer App (CPCA)

CPCA 105
Introduction to Personal Computers: Windows (1 CR)
This introductory course is designed to give the beginning computer user an overview of the personal computer. The student will gain confidence in basic computer skills and concepts through a hands-on approach while becoming familiar with a microcomputer and its primary uses. Topics include computer software, hardware and terminology; an introduction to microcomputer operating systems; and the graphical user interface. 1 hr. lecture/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

CPCA 106
Introduction to Personal Computers: Macintosh (1 CR)
This introductory course is designed to give the beginning computer user an overview of the Macintosh personal computer. The student will gain confidence in basic computer skills and concepts through a hands-on approach while becoming familiar with a Macintosh computer and its primary uses. Topics include computer software, hardware and terminology; as well as an introduction to the Macintosh operating system, word processing, drawing, spreadsheets and database management. 1 hr. lecture/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

CPCA 107
Distance Learning (1 CR)
This course provides an introduction to the basic usage of Distance Learning software. Students will send and receive e-mail; post and organize discussion group messages; manage calendars, appointments and to-do lists; and use contact management features. 1 hr. lecture/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.
CPCA 108
Word Processing I: MS Word (1 CR)
Prerequisites: CPCA 105 or CPCA 106 or CIS 124 or DP 124 or CPCA 128 or appropriate score on a waiver test
Students will learn concepts and use of word processing software on the personal computer. Concepts covered will include creating, saving, printing and editing word processing files; searching and replacing text; creating headers and footers; inserting and sizing graphic images; setting up tables; creating and applying styles; and creating mail merge letters. 1 hr. lecture/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

CPCA 110
Spreadsheets I: MS Excel (1 CR)
Prerequisite: CPCA 105 or CPCA 106 or CIS 124 or DP 124 or CPCA 128 or an appropriate score on a waiver test
Students will learn concepts and uses of spreadsheet software on the personal computer. Business decision-making worksheet models will be created and modified by entering labels, functions and formulas. Various formatting techniques will be applied to enhance the appearance of printed worksheets. Students will also learn to display the worksheet data graphically with the charting capabilities of the software. 1 hr. lecture/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

CPCA 111
Spreadsheets II: MS Excel (1 CR)
Prerequisite: CPCA 110 or CPCA 128
This course is a continuation of CPCA 110, Spreadsheets on the Microcomputer I, and will provide the student with intermediate level of spreadsheet concepts. Using typical business scenarios, the student will perform manual and automated "what-if" analyses, manage data in worksheets with tables and database functions, and use multiple worksheets to build consolidated statements. Basic macros will be introduced. 1 hr. lecture/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

CPCA 114
Databases I: MS Access (1 CR)
Prerequisite: CPCA 105 or CPCA 106 or CPCA 128 or CIS 124 or DP 124 or an appropriate score on a waiver test
This course provides an introduction to the concepts and real-world applications of microcomputer relational database software. Foundational database competencies, including building tables, defining fields, relating tables, entering and editing data, filtering, and sorting will be covered. Students will query the database to select, calculate and summarize information. Students will build and customize forms and reports. 1 hr. lecture/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

CPCA 115
Databases II: MS Access (2 CR)
Prerequisite: CPCA 114
Upon completion of this course, the student should be able to design and define a relational database; create custom forms and reports for data entry, updating and presentation; and build the necessary queries to support these objects. The student should be able to transfer data into and out of the database from various file formats; use database software to develop Web pages and hyperlinks; and manipulate the data and database with introductory macro, query language and programming skills. The course contains a capstone project in which the student
uses all the skills learned to create a working database for a client based on a real-world situation. 2 hrs. lecture/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

CPCA 116
Database: Filemaker Pro (1 CR)
Prerequisite: CPCA 105 or CPCA 106 or CPCA 128 or CIS 124 or DP 124

In this career-related course, students will be introduced to the essential concepts of data management so they can store, organize and synthesize information for effective use in the day-to-day business needs of even a medium-sized organization. Students will create a database file with fields, records, calculations, summaries, auto entries and pop-up lists. Several layouts will be created with links between them. Sorts and finds will be created and saved as scripts with buttons. 1 hr. lecture/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

CPCA 117
Databases III: MS Access (1 CR)
Prerequisite: CPCA 115

Upon successful completion of this course, the student should be able to analyze an existing database solution that is not working properly, import the data into Access and use action queries and SQL to normalize the database into an effective rational database. A case study emphasis will cover different database design and documentation issues. Students will also build complex forms and reports using Visual Basic for Applications programming code. Student will be introduced to Data Access Objects and ActiveX Data Objects. 1 hr. lecture /wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

CPCA 118
Groupware (1 CR)
Prerequisite: CPCA 105 or CPCA 106 or CPCA 128 or CIS 124 or DP 124 or an appropriate score on a waiver test

This course provides an introduction to the concepts and applications of today’s robust groupware applications. Students will use groupware to compose, send and receive e-mail; post and organize discussion group messages; manage calendars, appointments and to-do lists; and use contact management features. 1 hr. lecture/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

CPCA 121
Introduction to Project Management (1 CR)
Prerequisite: CPCA 105 or CPCA 106 or CPCA 128 or CIS 124 or DP 124 or an appropriate score on a waiver test

Upon completion of this course, the student should be able to effectively manage projects using project management software. Students will learn about project management goals and terminology, create a project schedule and use project management methodologies and tools such as the Gantt chart, critical path method (CPM) and program evaluation review technique (PERT) chart to update a project and communicate project progress to others. Students will use other project management techniques such as applying resources, leveling overallocations, evaluating constraints and analyzing planned versus projected schedule and budget variables. 1 hr. lecture/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

CPCA 122
**Assistive Technology** (1 CR)
This introductory course is designed to give the student with or without disabilities an overview of the personal and the adaptive hardware and software available. The student will gain confidence in basic computer skills and concepts through a hands-on approach while becoming familiar with the adaptive software and hardware available on the campus. 1 hr. lecture/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

---

**CPCA 123**
**E-Presentation: MS PowerPoint** (1 CR)
*Prerequisite: CPCA 105 or CPCA 106 or DP 124 or CIS 124 or CPCA 128 or an appropriate score on a waiver test*

Upon completion of this course, students should be able to organize and produce an effective on-computer or slide-generated presentation, complete with printed speaker notes and handouts plus overhead transparencies, using the basic features of a presentation graphics program. Students will use master pages, template files, text formatting, color schemes, various drawing tools, the automated outline feature and animation dissolve sequence and incorporate photographs. 1 hr. lecture/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

---

**CPCA 125**
**Word Processing II: MS Word** (1 CR)
*Prerequisite: CPCA 108*

This is a continuation of CPCA 108, Word Processing on Micros I. After completing this course, students should be able to use advanced concepts and applications of word processing software. The applications will include importing graphics, creating reports, newsletters, footnotes and endnotes, styles, columns, templates, macros, creating a Web page, on-screen forms, and linking and embedding an object. 1 hr. lecture/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

---

**CPCA 128**
**PC Applications: Office 2003** (3 CR)

Upon successful completion of this course, the student should be able to use Windows to create and organize files and folders and perform essential file management procedures such as copying, moving, deleting and renaming files and folders. An in-depth proficiency will also be attained with the use of word processing, spreadsheet, presentation graphics and Internet browser applications. Hands-on, practical projects will be performed to reinforce the concepts taught. 3 hrs./wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

---

**CPCA 134**
**Managing Your Macintosh** (1 CR)
*Prerequisite: CPCA 106 or an appropriate score on an assessment test*

In this career-related course, students will be introduced through lecture material and hands-on practical projects to the essential concepts of file organization, utility software installation and use, font management and backup techniques. 1 hr. lecture/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

---

**CPCA 138**
**Windows for Microcomputers** (1 CR)
*Prerequisite: CPCA 105 or CPCA 106 or CPCA 128 or CIS 124 or DP 124 or an
appropriate score on an assessment test
At the completion of this course, the student will be able to discuss the components of the Windows desktop, use the Windows Help system, create and organize a folder system on a disk, perform file management commands, customize the Windows desktop environment, use the Search tool to locate files and folders, and perform file backup and disk maintenance procedures. The student will also be able to use performance monitoring tools, add hardware and software to the system, and use basic MS DOS directory and file management commands.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

CPCA 139
UNIX (1 CR)
Prerequisite: CPCA 105 or CPCA 106 or CPCA 128 or CIS 124 or DP 124 or an appropriate score on an assessment test
This course will introduce students to the major commands of the Unix operating system. E-mail, the VI editor and Telnet will be covered. Basic file and disk management projects will be completed in this course. 1 hr. lecture/wk.

CPCA 141
Internet I (1 CR)
Prerequisite: CPCA 105 or CPCA 106 or CPCA 128 or CIS 124 or DP 124 or an appropriate score on an assessment test
This course will introduce the student to the commands and techniques required to effectively access the resources of the Internet. Windows applications to browse the Internet, locate and retrieve information and send and receive electronic mail will be covered. 1 hr. lecture/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

CPCA 151
Internet II (1 CR)
Prerequisite: CPCA 141 or an appropriate score on an assessment test
This course will cover the commands and techniques required to effectively use various Internet application tools. The student will also use Windows and non-Windows applications to locate information, download and upload files, and create a Web page. Additionally the course will cover basic LINUX commands and publish a Web page to a Web server. 1 hr. lecture/wk.

CPCA 158
Internet Application and Utilities (3 CR)
Prerequisite: CPCA 141 or an appropriate score on an assessment test
This course will introduce the student to the commands and techniques required to effectively access the resources of the Internet. Windows and non-Windows applications will be used to locate, retrieve and disseminate essential information. This course will cover the techniques required to create and publish World Wide Web pages using HTML. 3 hrs. lecture- demonstration/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

CPCA 161
Introduction to Web Pages using HTML (1 CR)
Prerequisite: CPCA 151 or an appropriate score on an assessment test
This course will cover the commands and techniques required to create and publish World Wide Web pages using HyperText Markup Language. Topics covered will include basic text layout, background colors, formatting, ordered and unordered lists, links, and interactive forms.
unordered lists, tables, frames that include graphic images in a page and linking to other Web pages. 1 hr./wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

Computer Science (CS)

CS 180
Introduction to Artificial Intelligence (3 CR)
Prerequisite: CIS 145 or DP 145 or CIS 148 or DP 148 or CIS 150 or DP 150 or CS 200

Upon successful completion of this course, students should be able to understand simple computer programs illustrating introductory concepts in artificial intelligence, define terms and application areas in the field and describe knowledge representation and problem-resolution techniques used in artificial intelligence. 3 hrs. lecture/wk.

CS 200
Concepts of Programming Algorithms Using C++ (4 CR)
Prerequisite: CIS 134 or ENGR 171 or equivalent experience

This course emphasizes programming methodology and problem solving. Algorithm design and development, data abstraction, good programming style, testing and debugging will be presented. An appropriate block-structured high-level programming language will be studied and used to implement algorithms. 3 hrs. lecture, 2 hrs. lab by arrangement/wk. Four-credit-hour CS courses have two hours of open lab per week.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $20 to 50.

CS 201
Concepts of Programming Algorithms using C# (4 CR)
Prerequisite: CIS 134 or ENGR 171 or equivalent experience

This course emphasizes programming methodology and problem-solving using C#. Algorithm design and development, data abstraction, good programming style, testing and debugging will be presented. 3 hrs. lecture, 1.5 hrs. lab/wk.

Four credit hours CS courses have two hours of open lab per week.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $20 to 50.

CS 205
Concepts of Programming Algorithms using JAVA (4 CR)
Prerequisite: CIS 134 or ENGR 171 or equivalent experience

This course emphasizes programming methodology and problem-solving using Java. Algorithm design and development, data abstraction, good programming style, testing and debugging will be presented. 3 hrs. lecture, 1.5 hrs. lab/wk.

Four-credit-hour CS courses have two hours of open lab per week.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $20 to 50.

CS 210
Discrete Structures I (3 CR)
Prerequisites: MATH 171 or both MATH 116 and CIS 134 or appropriate test scores

Upon successful completion of this course, the student should be able to use fundamental discrete mathematics as it relates to computers and computer applications. The student will be exposed to a variety of discrete mathematical topics. The course will include fundamental mathematical principles, combinatorial
CS 211
Discrete Structures II (3 CR)
Prerequisite: CS 210
Upon successful completion of this course, the student should be able to use fundamental discrete mathematics as it relates to computers and computer applications. The student will experiment with a variety of discrete mathematical topics. The course will include fundamental mathematical principles, combinatorial analysis, mathematical reasoning, graphs and trees, and Boolean logic circuits. 3 hrs. lecture/wk.

CS 250
Basic Data Structures using C++ (4 CR)
Prerequisites: CS 200 Prerequisite or corequisite: CS 210 for students transferring to most four-year computer science programs
This course will cover advanced programming topics using C++. Files, recursion, data structures and large program organization will be implemented in projects using object-oriented methodology. Students will write programs using the concepts covered in the lecture. 3 hrs. lecture, 2 hrs. lab/wk. Four-credit-hour CS courses have two hours of open lab per week.

CS 255
Basic Data Structures using JAVA (4 CR)
Prerequisite: CS 205
This course will cover advanced programming topics using Java. Files, recursion, data structures and large program organization will be implemented in projects using object-oriented methodology. Students will write programs using queues, stacks, lists and other concepts covered in the lecture. 3 hrs. lecture, 1.5 hrs. lab/wk. Four-credit-hour CS courses have two hours of open lab per week.

Computer Web (CWEB)

CWEB 101
Introduction to the Web using Internet Explorer (1 CR)
Prerequisites: CPCA 105 or CPCA 106 or CPCA 128 or DP 124 or CIS 124 or an appropriate score on an assessment test
This course will introduce the student to commands and techniques required to effectively use the resources of the World Wide Web. Topics to be covered will include how to browse, search and retrieve information on the Internet using Internet Explorer, how to create and manage "favorites", how to protect computers from viruses, how to send and receive electronic mail, and how to create a basic home page. 1 hr. lecture/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

CWEB 105
Introduction to Web Pages: Dreamweaver (1 CR)
Prerequisite: CWEB 101
This course will cover the commands and techniques required to create and revise Web pages using Dreamweaver. Topics to be covered will include basic text layout, viewing and identifying basic HTML tags, creating a site map, formatting a Web page, applying background color, inserting images and sounds,
Creating ordered and unordered lists, inserting files, and creating links on Web pages, 1 hr. lecture/wk. This course may be offered as a Learning Communities (LCOM) section, see current credit schedule for LCOM details.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

**CWEB 106**
**Introduction to Microsoft FrontPage (1 CR)**
*Prerequisite: CWEB 101*
This course will cover the commands and techniques required to create and revise World Wide Web pages using Microsoft FrontPage. Topics to be covered will include basic text layout, viewing and identifying basic HTML tags, formatting a Web page, inserting background color, adding pictures and sounds, creating ordered and unordered lists, inserting files and creating links to other Web pages. 1 hr. lecture/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

**CWEB 107**
**Web Tools: Microsoft Office (1 CR)**
*Prerequisites: CWEB 101 and CPCA 110 or CPCA 114*
Upon successful completion of this course, the student should be able to create static and dynamic Web-based documents, Excel spreadsheets, PowerPoint presentations and Access databases. 1 hr. lecture/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

**CWEB 108**
**GoLive I (1 CR)**
*Prerequisite: CPCA 105 or CPCA 106 or an appropriate score on an assessment test*
This short course provides instruction in the creation, production and management of Web pages and Web sites. The course covers introductory concepts and techniques in Web page creation, from the initial preplanning and page layout through the actual publishing of Web pages to a Web site. The emphasis is on introductory, practical experience in Web page creation and management using Adobe GoLive. 1 hr. lecture/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

**CWEB 111**
**Intermed Web Concepts/Techniques using Explorer (1 CR)**
*Prerequisite: CWEB 101*
This course is a continuation of CWEB 101, Introduction to the Web using IE, and will cover intermediate commands and techniques required to use various Web-based tools and programs. Topics to be covered will include using complex search strategies; finding people, businesses and e-mail addresses on the Web; accessing and using Newsgroups; joining and leaving mailing lists; using a Web-based chat facility; locating and downloading freeware and shareware programs; and identifying online backup and storage options. 1 hr. lecture/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

**CWEB 115**
**Intermediate Web Pages: Dreamweaver (1 CR)**
*Prerequisite: CWEB 105*
This course will cover intermediate-level commands and techniques required to create and enhance a Web page using Dreamweaver. Topics to be covered will include tracing images, layers, converting layers to tables, custom tables,
cascading style sheets, templates and libraries, and publishing a Web site. 1 hr. lecture/wk. This course may be offered as a Learning Communities (LCOM) section, see current credit schedule for LCOM details.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

CWEB 116
Intermediate Microsoft FrontPage (1 CR)
Prerequisite: CWEB 106
This course is a continuation of CWEB 106, Introduction Web Pages: FrontPage, and will cover intermediate-level commands and techniques required to create and enhance a FrontPage Web site. Topics to be covered will include shared borders and themes, publishing a Web site, new Web site creation on a Web server, database integration and using office components and styles. 1 hr. lecture/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

CWEB 118
GoLive II (1 CR)
Prerequisite: CWEB 108
This intermediate course is designed to explore the relation, production and management of Web pages and Web sites using a variety of techniques and tools within Adobe GoLive. Creating animations, using actions and JavaScript, creating forms, using cascading style sheets, and management of Web sites will be covered. 1 hr. lecture/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

CWEB 120
Internet Applications: Fireworks I (1 CR)
Prerequisite: CPCA 105 or CPCA 106 or waiver test scores
This course is an introduction to the fundamentals, tools and techniques of Web imaging using Macromedia Fireworks. Students will gain an understanding how to import, manipulate, optimize and animate Web graphics. Students will combine graphics with HTML and JavaScript creating image slices, navigation menus and hotspots. 1 hr. lecture/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

CWEB 125
Internet Applications: Dreamweaver & Databases (1 CR)
Prerequisites: CWEB 115 and CPCA 114
This course explores the Dreamweaver database environment and dynamic site concepts. Students will learn how to create, sort and display recordset content in a Web page. Students will create search applications, allowing movement between master and detail record pages, and to display the results of database searches. 1 hr. lecture/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

CWEB 130
Introduction to Flash (1 CR)
Prerequisite: CPCA 161 or CWEB 105 or CWEB 106
This course will cover the commands and techniques available to add Flash content to Web pages and CD-ROMs. Topics covered will include using drawing tools, manipulating text with text tools, adding and modifying sound, creating animation and publishing work. This class will be taught in a classroom with both Macintosh and Windows computers. 1 hr. lecture/wk. This course may be offered...
as a Learning Communities (LCOM) section, see current credit schedule for LCOM details.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

CWEB 135
Web-Enabled Databases I using Access (1 CR)
Prerequisite: CPCA 114
Upon completion of this course, the student should be able to create dynamic Web pages used to publish database information or create user entry forms. Using a browser, students will be able to open the Web pages to find, sort, enter and update data in the underlying database. Students will be introduced to underlying Internet technologies, such as Web servers, ODBC, HTML and HTTP, and how they relate to a data-driven Web site. 1 hr. lecture/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

CWEB 140
Intermediate Flash (1 CR)
Prerequisite: CWEB 130
This course will build on the fundamental skills learned in CWEB 130, Introduction to Flash. Topics will include complex animation techniques; interactivity with simple frame actions; and interactivity using objects such as buttons, hot spots and movie clips. 1 hr. lecture/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

CWEB 145
Web-Enabled Databases II using Access (1 CR)
Prerequisite: CWEB 135
Upon completion of this course, the student should be able to create advanced dynamic Web pages used to publish database information, create complex user entry forms and analyze data interactively with advanced controls such as charts. Using a browser, students will be able to open the Web pages to manipulate and analyze data in the underlying database. Students will implement Internet technologies, such as Web servers, ODBC, HTML and HTTP, to build an intranet-based Web-enabled database. 1 hr. lecture/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

CWEB 150
Advanced Flash (1 CR)
Prerequisite: CWEB 140
This course will build on the skills learned in CWEB 131, Intermediate Flash. Students will do projects to control movie clips, sound, external data, multiple timelines and text fields. Some ActionScripting will be introduced. 1 hr. lecture/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

CWEB 160
Introduction to JavaScript (1 CR)
Prerequisite: CWEB 105 or CWEB 106 or CPCA 161
This course will cover the commands and techniques available to add functionality to Web pages using JavaScript. Topics to be covered include integrating JavaScript into an HTML file, creating pop-up windows, adding scrolling messages, validating forms and enhancing the use of image and form objects. 1 hr. lecture/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.
CWEB 165
Introduction to Adobe Acrobat (1 CR)
This course will introduce students to the Adobe Acrobat software program. Students will be presented with the basics of Adobe Acrobat and will be shown how to create and edit PDF files using Acrobat and Distiller. Topics will include how to gather Web page content for off-line viewing and how to use JavaScript inside a PDF document to make it interactive. Projects will include how to add navigation, multimedia elements and data forms to PDF files.  1 hr. lecture/wk.  
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

CWEB 170
Intermediate JavaScript (1 CR)
Prerequisite: CWEB 160
This course builds on the skills learned in CWEB 160, Introduction to Web Scripting: JavaScript. Students will learn to use JavaScript in their Web pages to build menus and navigational structures. They will also learn to use intermediate techniques for cookie manipulation and storage. Complex use of operators (Bitwise, Assignment, Comparison, Arithmetic and Boolean) will be explained.  1 hr. lecture/wk.  
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

CWEB 180
E-Commerce Using JavaScript (1 CR)
Prerequisite: CWEB 160
This course builds on the skills learned in CWEB 160, Introduction to Web Scripting: JavaScript, and CWEB 161, Intermediate JavaScript. The student will build a complete e-commerce site that will support online ordering and payment with JavaScript.  1 hr. lecture/wk.  
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

CWEB 190
ActionScript for Flash (1 CR)
Prerequisite: CWEB 150
This course will teach the basic skills needed to use ActionScripts in Flash movies. Students will build interactivity into their movies using ActionScript. They will also manipulate data and control Flash objects such as movie clips. ActionScript logic and functions will be explained.  1 hr. lecture/wk.  
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

CWEB 230
Introductory E-Commerce Applications (1 CR)
Prerequisite: CWEB 101 or CPCA 141
This course will introduce students to e-commerce in a software-driven, hands-on way. It will use software tools to discuss and explore a variety of e-commerce activities. Students will examine an extensive list of e-commerce sites, such as those that support purchasing, delivery, support, auction, business-to-business, virtual community and Web-portal business goals. They will examine e-commerce stores that incorporate advertising, marketing, branding, and business efficiency goals. They will explore how to populate a store catalog, create site-wide navigation links and publish a store.  1 hr. lecture/wk.  
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

CWEB 240
Intermediate E-Commerce Applications (1 CR)
Prerequisite: CWEB 230
This course will use software tools such as Internet Explorer and Netscape Communicator to discuss and explore a variety of intermediate e-commerce activities. For example, students will examine e-commerce security issues, such as cookies, privacy risks and property threats, including copyright issues, viruses, security policies, encryption, digital signatures and transaction integrity. Students will study electronic payment systems, including script, electronic checks, credit card purchases, electronic wallets, smart cards and electronic cash. Students will explore international and legal issues, such as language and custom barriers, laws and regulations, and tax considerations. They will also explore ethical issues, such as trust and defamation issues. Finally, they will explore careers in electronic commerce. 1 hr. lecture/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

Cosmetology (AVCO)

AVCO 102
Nail Technology
This course provides skill instruction in determining nail disorders and care as well as the artistic application of tips, overlays and sculptured nails. Upon successful completion, students are prepared to take the Kansas State Board of Cosmetology onychology examination. In-state tuition and fees $700.00 total. Out-of-state tuition and fees $2,870.00 total, 350 contact hrs. For enrollment and tuition information, call 913-469-8500 ext. 2390. The credit reflected in this course is for transcript reporting, recording and transfer only. Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $145 to 150.

AVCO 110
Introduction to Cosmetology
Prerequisite: Selective Admission Approval
This course provides skill instruction in shampooing, cutting, shaping, curling and coloring. Also included is curriculum from Nail Technology and Cosmetology Technician I and II. The first 500 contact hours are in the basic lab and the classroom without client contact. In-state tuition and fees $970 total. Out-of-state tuition and fees $4,070 total. 500 contact hrs. For enrollment and tuition information, call 913-469-8500 ext. 2390. The credit reflected in this course is for transcript reporting, recording and transfer only. Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $28 to 38.

AVCO 112
Clinical Cosmetology
Prerequisite: Selective Admission Approval
This course provides continuing skill instruction in shampooing, cutting, shaping, curling and coloring. Included is an introduction to client relations skills and sales promotion techniques. Instruction includes classroom and salon. In-state tuition and fees $893 total. Out-of-state tuition and fees $4,060 total. 500 contact hrs. For enrollment and tuition information, call 913-469-8500, ext. 2390. The credit reflected in this course is for transcript reporting, recording and transfer only.

AVCO 114
Advanced Cosmetology
Prerequisite: AVCO 110 with a min grade of "C" or better and selective admission approval
This course provides advanced instruction in shampooing, cutting, shaping, curling and coloring. This course prepares the student for the Kansas State Board
of Cosmetology examination. In-state tuition and fees $893 total. Out-of-state tuition and fees $4,060 total. 500 contact hrs. For enrollment and tuition information, call 913-469-8500, ext. 2390. The credit reflected in this course is for transcript reporting, recording and transfer only.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $159.

**AVCO 118**

**Esthetics**

*Prerequisite: Selective Admission Approval*

This course provides skill instruction in skin care. Topics include sanitation, skin sciences, waxing, skin treatments, makeup and business practices. This course prepares the student for the Kansas State Board of Cosmetology esthetician examination. In-state tuition and fees $1,240 total. Out-of-state tuition and fees $5,270 total. 650 contact hrs. For enrollment and tuition information, call 913-469-8500 ext. 2390. The credit reflected in this course is for transcript reporting, recording and transfer only.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $174 to 190.

**AVCO 212**

**Cosmetology Instructor Training**

*Prerequisite: Current Kansas Cosmetology and Esthetics or Nail Technology License. Minimum of one year of practice in trained area and selective admission approval*

This 300 contact hour course is design to meet the educational requirements for licensure by Kansas Board of Cosmetology for instructors in the cosmetology sciences. Students will attend 40 hours of lecture and participate in 260 hours of observation, clinic supervision, and classroom teaching. Topics covered include instructor characteristics, student motivation, methods and evaluation. In-state tuition $540 total. Out-of-state tuition $2,400 total. 300 contact hrs. For enrollment information call 913-469-8500 ext. 2390. The credit reflected in this course is for transcript reporting, recording and transfer only.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $75.

**AVCO 218**

**Advanced Esthetics Training**

*Prerequisite: Must possess current esthetics license granted by the Kansas Board of Cosmetology, a current cosmetology license, or the minimum of 500 hours of esthetics training from another institution.*

This 100-contact-hour course is designed to meet the education requirements for licensure by the Missouri Board of Cosmetology for estheticians in the cosmetology sciences and meet the needs of students who desire exposure to advanced esthetics techniques. Students will attend 44 hours of lecture/demonstration, practice 48 hours of integrated lecture/clinical, and participate in eight hours of community service. Topics covered include body treatments, theory on the day spa, airbrush makeup, microdermabrasion and manual lymphatic drainage. In-state tuition is $1,100. Out-of-state tuition is $1,720. 100 contact hrs. For enrollment information, call 913-469-8500 ext. 2390. The credit reflected in this course is for transcript reporting, recording and transfer only.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $15.

**Dental Hygiene (DHYG)**

**DHYG 121**

**Clinical Dental Hygiene I: Pre-Clinic (5 CR)**
Prerequisites: Admission to the Dental Hygiene Program, a minimum 2.0 GPA in curriculum courses and CHEM 122 and ENGL 121 and BIOL 140 and BIOL 230 Corequisites: DHYG 125 and DHYG 138 Prerequisite or corequisite: DHYG 135 and SOC 122

This course will includes information and techniques relating to the history, development, current status and future of the profession of dental hygiene. Students will be introduced to fundamental dental hygiene services, instrumentation, patient assessment, preventive treatment, transmissible diseases, exposure barriers and infection control. 2 hrs. lecture, 13 hrs. lab/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $3300 to 3350.

DHYG 125
Developmental Dentistry (2 CR)
Prerequisite: Admission to Dental Hygiene Program and CHEM 122 and ENGL 121 and BIOL 140 and PSYC 130 and BIOL 230 and Corequisite: DHYG 121 and DHYG 138 and Prerequisite or corequisite: SOC 122 and DHYG 135

This course will include a study of embryology; oral histology; developmental disturbances of the face, oral cavity and related structures; and dental morphology and occlusion. 1 hr. lecture, 3 hrs. lab/wk.

DHYG 135
Dental Materials (2 CR)
Prerequisites: CHEM 122 and ENGL 121 and PSYC 130 and BIOL 140 and BIOL 230 and Prerequisite or corequisite: SOC 122 Corequisites: DHYG 121 and DHYG 125 and DHYG 138

This course is designed to provide students with a knowledge base of the science and physical properties of dental materials. Through laboratory exercises, students will have hands-on experience with dental materials used in dental hygiene and dentistry while applying their knowledge of dental material sciences. 1 hr. lecture, 2 hrs. lab/wk.

DHYG 138
Head and Neck Anatomy (2 CR)
Prerequisite: BIOL 230 and CHEM 122 and ENGL 121 and PSYC 130 and BIOL 140 and admission to the Dental Hygiene Program and Prerequisite or corequisite: SOC 122 Corequisites: DHYG 121 and DHYG 125

This course is designed to provide dental hygiene students with the basic anatomical foundations to support clinical course work. Topics to be covered include embryonic development of the head and neck, along with identification of the bones in the skull. Muscles of the head and neck will be identified along with their functions, insertion and origins. The vascular, lymphatic and nervous systems of the head and neck will be discussed along with the anatomical basis of the spread of infection. 3 hrs. lecture and lab/wk.

DHYG 140
Clinical Dental Hygiene II (4 CR)
Prerequisite: DHYG 121 Corequisites: DHYG 142 and DHYG 146 and DHYG 148 and prerequisite or corequisite: BIOL 225 and DHYG 135

The course will include clinical application of dental hygiene techniques and instrumentation, oral health products, patient motivation and educational techniques, preventive strategies including use of an intraoral clinic camera and an introduction to selected dental specialties. Students will be prepared for medical and dental emergencies, which may be encountered in various practice settings. An introduction to the dental hygiene process (ADPIE) and working with special-needs patient populations will be provided.

Associated Costs: In addition to the course tuition, fees, and textbooks, this
course has additional expense considerations that are estimated to be $25 to 35.

DHYG 142
Dental Radiology (2 CR)
Prerequisites: DHYG 121 Corequisites: DHYG 140 and DHYG 146 and DHYG 148 and Prerequisite or corequisite: BIOL 225 and DHYG 135
This class will concentrate on the theory and clinical practice of exposing, processing, mounting and evaluating oral radiographs with emphasis on radiation protection and infection control for the patient and operator. 1 hr. lecture, 3 hrs. lab/wk.

DHYG 146
Periodontics (3 CR)
Prerequisites: DHYG 121 and Corequisites: DHYG 140 and DHYG 142 and DHYG 148 Prerequisite or Corequisite: BIOL 225 and DHYG 135
This course will include recognition of the etiology and clinical signs and symptoms of periodontal diseases. The inflammatory process, treatment planning and nonsurgical therapy are discussed. 3 hrs. lecture/wk.

DHYG 148
Dental Health Education (2 CR)
Prerequisites: DHYG 121 and Corequisites: DHYG 140 and DHYG 142 and DHYG 146 Prerequisite or Corequisite: BIOL 225 and DHYG 135
Students will study health and apply educational methods for individuals and groups, with special emphasis on behavior modification, compliance, communication and motivation. Exercises in the research process and evaluation research articles are included. 1 hr. lecture, 2 hrs. lab/wk.

DHYG 221
Clinical Dental Hygiene III (6 CR)
Prerequisites: DHYG 140 BIOL 235 Corequisites: DHYG 225 and DHYG 230 and DHYG 240
Students will continue development in the areas of patient management, preventive dental hygiene treatment and proficiency in clinical techniques through practical application. Current advances in dental hygiene services will also be introduced. 2 hrs. lecture, 16 hrs. clinic/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $250 to 275.

DHYG 225
Pathology (3 CR)
Prerequisites: DHYG 140 BIOL 235 Corequisites: DHYG 221 and DHYG 230 and DHYG 240
This course will introduce the students to concepts related to general systemic and oral pathology. General principles of pathology include inflammation, immunity, neoplasia and wound healing. Basic pathological processes of oral conditions, their etiologies and treatments will be discussed. 3 hrs. lecture/wk.

DHYG 230
Dental Therapeutics (3 CR)
Prerequisites: DHYG 140 and BIOL 235 Corequisites: DHYG 221 and DHYG 225 and DHYG 240
This course will introduce the basic principles of drug actions, emphasizing dental-related therapeutics and drugs associated with common systemic disorders, information on the selection of professional products, and principles necessary in administering local anesthesia. 2 hrs. lecture, 2 hrs. lab/wk.

DHYG 240
Community Dental Health (2 CR)
Prerequisites: DHYG 140 and BIOL 235 Corequisites: DHYG 221 and DHYG 225 and DHYG 230
Topics will include public health agencies, statistical procedures for critiquing scientific literature, identifying dental needs of different groups and planning dental health education programs. Preventive techniques, health promotion, consumer advocacy and the role of the dental hygienist in public health will be emphasized. Field experience will be included. 1 hr. lecture, 3 hrs. lab/wk.

DHYG 245
Nitrous Oxide Analgesia (1 CR)
Prerequisite: DHYG 221 and Corequisite: DHYG 250
This course will concentrate on the principles of administering and monitoring nitrous oxide analgesia. Upon completion of the course, didactic and clinical proficiency in nitrous oxide analgesia will meet certification standards set by state dental boards. 1 hr. lecture, lab/wk.

DHYG 250
Clinical Dental Hygiene IV (6 CR)
Prerequisites: DHYG 221 and Corequisite: DHYG 245
This course will offer continued development of proficiency in clinical techniques and current procedural practices of the dental hygienist with emphasis on self-evaluation. Topics will include ethics, jurisprudence, office management, current dental hygiene issues and preparation for board exams. 2 hrs. lecture, 16 hrs. clinic/wk., 1 hr. board review for first 8 wks.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $100 to 125.

Drafting/CAD/AutoCAD (DRAF)

DRAF 120
Introduction to Drafting (2 CR)
This course should be taken by students without prior drafting experience. Upon successful completion of this course, the student should be able to identify and apply the essential, basic skills necessary to proceed through the drafting program, including lettering, measuring, geometric construction, sketching, isometrics, orthographic views, dimensioning and auxiliary view. 1 hr. lecture, 3 hrs. lab/wk. Drafting classes that have additional lab have either the time and room listed or TBA (to be announced) with the room number listed.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $45 to 60.

DRAF 123
Interpreting Machine Drawings (2 CR)
Prerequisite or corequisite: DRAF 120 or approval of the program assistant dean
This course is a required course in the computer-aided drafting and design technology program. Upon successful completion of this course, students should be able to interpret graphics used to fabricate, assemble, maintain and operate
the equipment and products of industry. General detail and assembly prints will be evaluated for title block information, general notes, dimensioning, tolerance specification and symbology. Specialized drawings will include cams, gears, numerical control, plastics, sheet metal and instrumentation. 2 hrs. lecture/wk.

DRAF 129
Interpreting Architectural Drawings (2 CR)
This beginning course will explain the fundamentals of interpreting (reading) architectural drawings. Upon successful completion of this course, students should be able to understand plan and elevation views, sections, details, schedules, specifications, symbols and abbreviations found on most residential and commercial construction drawings. 2 hrs./wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $5 to 10.

DRAF 130
Introduction to CAD Concepts: AutoCAD 2007 (3 CR)
Prerequisite: DRAF 120 or approval of the program assistant dean
This course provides a basic knowledge of AutoCAD. Students will learn to use CAD equipment, including input/output devices and microcomputers as drafting tools. Emphasis will be on a basic understanding of CAD terms and concepts as they are applied in industry. Students will be provided an overview of many of the key features of a major microcomputer CAD package with hands-on experience at a workstation. Basic instruction will be provided on drawing setup, drawing commands, editing commands and screen control. The important concepts of layering, standard symbols and dimensioning will be introduced. 2 hrs. lecture, 3 hrs. lab/wk. Drafting classes that have additional lab have either the time and room listed or TBA (to be announced) with the room number listed.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 15.

DRAF 132
Introduction to AutoCAD LT (3 CR)
This course provides a basic knowledge of computer-aided drafting (CAD). Students will learn basic AutoCAD LT commands and the use of CAD equipment, including input/output devices as drafting tools. The latest version of AutoCAD LT, student version, will be used to cover topics including creating and setting up a drawing, using blocks and wblocks, editing a drawing, saving completed drawings, developing template drawings, printing from paper space, dimensioning, layering, drawing defaults and hatching. This course is for beginning AutoCAD users. 2 hrs. lecture, 3 hrs. lab/wk.

DRAF 135
Graphic Analysis (3 CR)
Prerequisite: DRAF 120 and DRAF 130 or approval of the program assistant dean
This course expands on introductory knowledge in drafting and CAD. Upon successful completion of this course, the student should be able to solve descriptive geometry problems, locate intersections of geometric shapes and produce developments of geometric shapes. Most assignments in this course will be completed using AutoCAD software. 2 hrs. lecture, 3 hrs. lab/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 15.

DRAF 140
Topics in CAD I (2 CR)
This course provides training for a specific design application software. Students will learn software commands and terminology. Students will be provided with in-depth coverage of the selected software and be given hands-on experience. Emphasis will be placed on the application of software to industry projects. 2 hrs.
DRAF 164  
**Architectural Drafting/Residential Interior Design (3 CR)**  
Upon completion of this course the student should be able to interpret residential drawings, draft architectural drawings and use industry references. Drawings studied include floor plans, elevations, sections, details and schedules. In addition to lab assignments, students will draft on coldpress board, vellum and plastic film. This course is required in the Interior Design, Interior Entrepreneurship and Interior Merchandising AAS programs. 2 hrs. lecture, 3 hrs. lab/wk.  
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $140 to 160.

DRAF 222  
**Mechanical Drafting (3 CR)**  
*Prerequisite: DRAF 123 and DRAF 230 Prerequisite and/or corequisite: MATH 134*  
Students successfully completing this course should be able to draw details and assembly views of mechanical parts. The types of parts discussed in this class include castings, sheet metal pieces, jigs and fixtures, and gauges. Important concepts include dimensioning, form and position tolerancing, coordinate tolerancing, and calculations related to material allowances and manufacturing. Project assignments will be completed using computer-aided drafting software. This course is typically taught in the fall semester. 2 hrs lecture, 3 hrs. lab/wk.  
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $40.

DRAF 225  
**Civil Drafting (3 CR)**  
*Prerequisite: DRAF 230 or ENGR 131 Corequisite: MATH 134*  
Upon successful completion of this course, the student should be able to apply drafting techniques used in civil engineering offices. The student will learn to draw civil engineering plans from surveying and engineering data. The student will be able to produce plan and profile drawings, roadway cross sections, earthwork calculations, topographic maps and property maps. The student will use CAD in drawing projects. This course is typically taught in the spring semester. 2 hrs. lecture, 3 hrs. lab/wk.

DRAF 228  
**Industrial Design Applications (3 CR)**  
*Prerequisites: CET 211 and DRAF 222 and DRAF 250 and DRAF 252*  
This course examines industrial systems. Topics include interdisciplinary considerations of manufacturing processes, machine elements, electrical controls and structural design. Systems will include pumping systems or material handling systems. Team project/protocol will be used to develop graphic, ISO and ANSI-approved solutions. Job books and journals for a project are required from all students. This course is typically taught in the spring semester. 2 hrs. lecture, 3 hrs. lab/wk.  
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $50 to 75.

DRAF 230  
**Intermediate CAD: AutoCAD (3 CR)**  
*Prerequisites: DRAF 130 or approval of the program assistant dean*  
This course provides an increased knowledge of AutoCAD as it is used in today’s industries. Students will build on their CAD experience by learning new
commands and techniques that increase system productivity. Special emphasis will be on developing construction techniques and command usage to increase CAD proficiency. Additional study of standard symbols, layers and editing functions will occur. Concepts covered will include dimensioning variables and styles, attributes and external referencing, as well as paper space and model space, as used in multiple-view drawings. 2 hrs. lecture, 3 hrs. lab/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $5 to 10.

**DRAF 231**  
**CAD 3-D (3 CR)**  
*Prerequisite: DRAF 230*

In this course students will explore the use of computer-aided drafting and design software for the construction of three-dimensional computer models. Emphasis will be on using 3-D software to produce multiple-view drawings. Visualization commands and techniques will be discussed and developed. Topics will include view commands and wire-frame and surface construction, as well as solid modeling. 2 hrs. lecture, 3 hrs. lab/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $5 to 10.

**DRAF 232**  
**CAD Applications Workstation Environment (2 CR)**  
*Prerequisite: DRAF 230 or approval of the program assistant dean*

This course provides instruction for customizing the CAD workstation and handling files in a network environment. Students will receive instruction in software commands and terminology and be provided with in-depth coverage of customizing the CAD environment and managing CAD data files in a production environment. Emphasis will be on hands-on application of the covered topics. 2 hrs. lecture, lab/wk.

**DRAF 233**  
**CAD Administration (2 CR)**

This course covers topics necessary for an individual to manage a CAD department in a production environment. Topics include managing CAD data, selecting types of equipment/software and establishing drafting policies and procedures. Also discussed are personnel issues for CAD employees/employers. 2 hrs. lecture/wk.

**DRAF 238**  
**Architectural Drafting (3 CR)**  
*Prerequisites: DRAF 129 and DRAF 230*

This course is an introduction to the production of architectural drawings for residential and commercial construction. Upon successful completion of this course, the student will be able to draw floorplans, sections, elevations, dimensions and schedules and use industry standards. Projects will be completed using CAD software. This course is typically taught in the spring semester. 2 hrs. lecture, 3 hrs. lab/wk.

**DRAF 240**  
**Introduction to AutoLISP (2 CR)**  
*Prerequisites: DRAF 230*

This course covers techniques for automation of AutoCAD drafting procedures through the use of the AutoLISP programming language. The scope of this course will include basic AutoLISP functions, creation of AutoLISP expressions and program files. It covers basic techniques and concepts needed to begin using AutoLISP effectively. 1 1/2 hrs. lecture, 1 hr. lab/wk.
DRAF 242
Topics in CAD II (2 CR)
Prerequisite: DRAF 230 or approval of the program assistant dean
This course provides training for a specific CAD-related software. Students will learn software commands and terminology. Students will be provided with in-depth coverage of the selected software and be given hands-on experience. Emphasis will be on the application of the selected software to industry projects. 2 hrs. lecture, lab/wk. Drafting classes that have additional lab have either the time and room listed or TBA (to be announced) with the room number listed.

DRAF 243
Architectural Desktop (2 CR)
Prerequisite: DRAF 230 or ENGR 131 or approval of the program assistant dean
This course introduces the student to the Architectural Desktop software used by many architectural and engineering design firms. Topics include software commands, project setup and the design process. Emphasis will be placed on the hands-on application of software to industrial projects. It is recommended that students have previous architectural design knowledge or have taken DRAF 238, Architectural Drafting. 2 hrs. lecture and lab/wk.

DRAF 244
Land Development Desktop (2 CR)
Prerequisite: DRAF 230 or ENGR 131 or approval of the program assistant dean
This course introduces the student to the Land Development Desktop software used by many land planning, civil engineering and surveying firms. Topics include software commands, project setup and the design process. Emphasis will be placed on the hands-on application of the software to industrial projects. It is recommended that students have previous civil engineering design knowledge or have taken DRAF 225, Civil Drafting. 2 hrs. lecture and lab/wk.

DRAF 245
Mechanical Desktop (2 CR)
Prerequisite: DRAF 230 or ENGR 131 or approval of the program assistant dean
This course introduces the student to the Mechanical Desktop software used by many industrial and mechanical design firms. Topics include software commands, project setup and the design process. Emphasis will be placed on the hands-on application of the software to industrial projects. It is recommended that students have previous mechanical engineering design knowledge or have taken DRAF 222, Mechanical Drafting. 2 hrs. lecture and lab/wk.

DRAF 250
Electrical Drafting (3 CR)
Prerequisites: MATH 133 and DRAF 230 or ENGR 131
Upon successful completion of this course, the student should be able to identify drafting techniques applicable to industrial lighting, motor controls, power distribution and generation. Emphasis will be on the use of tables, catalogs and applications software as aids to decision making required on electrical drawings. Project assignments will be completed primarily using CAD. This course is typically taught in the fall semester. 2 hrs. lecture, 3 hrs. lab/wk.

DRAF 252
Structural Drafting (3 CR)
Prerequisites: DRAF 230 or ENGR 131 Corequisite: MATH 134
Upon successful completion of this course, the student should be able to produce structural drawings and details of steel, concrete and wood structures for manufacturing, construction, engineering and architectural firms. Project work will be done using CAD. This course is typically taught in the spring semester. 2 hrs. lecture, 3 hrs. lab./wk.

DRAF 264  
CAD: Interior Design (3 CR)  
Prerequisite: ITMD 122 or ITMD 123 and ITMD 129 both with a grade of C or higher, or approval of the program assistant dean or approval of the program assistant dean  
This course is an introduction to the use of computer-aided drafting (CAD) as used in the interior design field. Upon successful completion of this course, the student should be able to draw floor plans and elevations of interiors using a computer-aided drafting system. AutoCAD LT software will be used. 2 hrs. lecture, 3 hrs. lab/wk. Drafting classes that have additional lab have either the time and room listed or TBA (to be announced) with the room number listed. Note: Prerequisites ITMD 123 and ITMD 129 require a grade of “C” or higher.  
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 15.

DRAF 266  
Graphic Communications II for Interior Design (3 CR)  
Prerequisite: DRAF 261  
Upon successful completion of this course, the student should be able to draft three-dimensional representations of interior spaces, furniture, window treatments and decorative accessories. One-point and two-point perspective drawing, isometric drawing and perspective grids are covered. Student will draft in pencil on vellum and ink on mylar. 2. hrs. lecture, 3 hrs. lab/wk.

DRAF 271  
Drafting Internship I (3 CR)  
Prerequisite: Program director approval  
Upon successful completion of this course, the student should be able to apply classroom knowledge to an actual work situation. The internship will provide advanced students the opportunity to develop job- and career-related skills while in a work setting. The work will be developed cooperatively with area employers, college staff and each student to provide a variety of actual job experiences directly related to the student’s career goals. 15 hrs. min./wk. Drafting classes that have additional lab have either the time and room listed or TBA (to be announced) with the room number listed.

DRAF 272  
Drafting Internship II (3 CR)  
Prerequisite: DRAF 271 and assistant dean’s approval  
Upon successful completion of this course, the student should be able to apply classroom knowledge to an actual work situation. The internship will provide advanced students the opportunity to develop job- and career-related skills while in a work setting. The work will be developed cooperatively with area employers, college staff and each student to provide a variety of actual job experiences directly related to the student’s career goals. 15 hrs. min./wk. Drafting classes that have additional lab have either the time and room listed or TBA (to be announced) with the room number listed.

Economics (ECON)
ECON 132
Survey of Economics (3 CR)
Upon successful completion of this course, the student should be able to explain basic macroeconomic and microeconomic theory, fiscal and monetary policies, the role and significance of international economics and government trade and regulatory policies. In addition, the student should be able to describe the characteristics and consequences of the differing business units in the economy, as well as the functioning of the labor market and how national income is distributed. The course is primarily for students who desire a one-semester, nontechnical overview of the basic components of macroeconomic and microeconomic theory and the functioning of the United States economy. 3 hrs. lecture/wk.

ECON 230
Economics I (3 CR)
Upon successful completion of this course, the student should be able to use economic terminology and principles to explain and discuss basic macroeconomic concepts, including supply of and demand for products, national income determination, money and banking, and monetary and fiscal policy. The student enrolling in this course should have successfully completed one year of high school algebra or the equivalent. (Macro) 3 hrs./wk.

ECON 231
Economics II (3 CR)
Upon successful completion of this course, the student should be able to use economic terminology and principles to explain and discuss basic microeconomic concepts, including extended analysis of product supply and demand and theory of the firm and product and resource market structures. Students enrolling in this course should have successfully completed one year of high school algebra or the equivalent. (Micro) 3 hrs./wk.

Education and Early Childhood (EDUC)

EDUC 121
Introduction to Teaching (3 CR)
Prerequisite - Note: For elementary and secondary education only
Teaching concepts and practices as they apply to today's elementary and secondary schools will be introduced. Topics will include the roles and responsibilities of the teacher, various modes of instruction, specialized areas in teaching, and professional requirements and concerns. Twenty hours of observation in a school setting are required. 3 hrs./wk.

EDUC 130
Foundations of Early Childhood Education (3 CR)
This introductory survey course is designed to provide students with current information on topics relevant to employment in early childhood programs. The course explores the historical and philosophical roots of early childhood education, general principles in child development, the teacher's role, values and ethics in early childhood education, curriculum design, and classroom management. Twenty hours of observation in a group childcare setting are required. 3 hrs. lecture/wk.

EDUC 131
Early Childhood Curriculum I (3 CR)
**EDUC 130**
*Prerequisite or corequisite: EDUC 130*
This methods course is designed for students who are, or will be, working in an early childhood education setting and parents or others who desire to develop an intellectually challenging environment for young children. The focus of the course is curriculum areas that deal with language and physical development. 3 hrs. lecture/wk.

**EDUC 205**
*Concepts in Early Childhood Education (3 CR)*
*Prerequisite or corequisite: EDUC 130 for certificate only*
This course will provide early childhood care and education professionals, and those aspiring to the profession, with the opportunity to apply early childhood education experience and continuing professional education to college credit. Students will gain and apply knowledge in many aspects of teaching young children in child-care and educational settings. The student will spend seven hours a week (105 clock hours total) in a supervised practical experience at the Hiersteiner Child Developments Center at JCCC and will complete 1.5 CEUs in early childhood education. Credit for prior experience may be substituted for completing this course. The program facilitator must assess the documents (i.e., CDA) provided by the student and/or arrange and evaluate the practical experience before offering credit for this course. Completion of an application for this credit is required and may be obtained from the program facilitator. For certificate only. 3 hrs. lecture/wk.

**EDUC 210**
*Creative Experiences for Young Children (3 CR)*
*Prerequisite: EDUC 130 and one of the following: PSYC 215 or PSYC 218 or EDUC 270*
This course is a study of constructing and maintaining an environment for young children that fosters aesthetic sensitivity and creativity. The course includes the young child's developmental stages in art, music, movement, language, and creative and dramatic play; methods and materials that nourish developmentally appropriate creative experiences and support an inclusive, anti-bias curriculum; integration of creative experiences in the whole curriculum; the use of technology; and helping families understand the creative experience. 3 hrs. lecture/wk.

**EDUC 215**
*Young Children with Special Needs (3 CR)*
This course is a study of creating and maintaining a developmentally appropriate inclusive environment for young children with special needs. The course includes the history of education and care for young children with special needs, federal and state legislation, types of differing abilities, developmental stages and capabilities of all young children, an inclusive approach to early education, and curriculum development for young children with special needs. Health, safety and nutrition; screening and assessment; interaction techniques; the role of the educator specific to the child's special needs; partnering with the family, other disciplines and community; and advocating for children are presented. The laboratory will include demonstration of the subject matter. 2 hrs. lecture, 3 hrs. lab/wk.

**EDUC 220**
*Survey of the Exceptional Child (3 CR)*
This course is an overview of the field of special education geared to those who are preparing to work with students with special needs. The course provides fundamental information on the identification and exceptionality, laws and legal cases affecting the delivery of services to individuals with exceptionalities and the principles of effective educational approaches for each exceptionality. Categories of exceptionality presented include learning disabilities, mental retardation,
behavior disorders, gifted and talented, communication disorders, autism, traumatic brain injury, physical disabilities, sensory impairments, other health impairments and multiple and severe disabilities. 3 hrs./ wk.

EDUC 225
Infant and Toddler Education and Care (3 CR)
Prerequisite: EDUC 130
This course is a study of creating and maintaining a developmentally appropriate environment for infants and toddlers. The course will include the history of education and care, theories of child development, developmental stages and capabilities of the very young child, and curriculum development for infants and toddlers. Health, safety and nutrition; assessment; interaction techniques; the role of the educator specific to the needs of the infant and toddler; partnering with family and community; and advocating for the very young are presented. The laboratory will include demonstration of the subject matter. 2 hrs. lecture, 3 hrs. lab/wk.

EDUC 231
Early Childhood Curriculum II (3 CR)
Prerequisite: EDUC 131
This methods course is designed for students who are, or will be, working in an early childhood education setting and parents or others who desire to develop an intellectually challenging environment for young children. The focus of the course is on curriculum areas that deal with the physical and social aspects of the world. Included in this inquiry curriculum are mathematics, science, social studies and nutrition. 3 hrs. lecture/wk.

EDUC 235
Parenting (2 CR)
Prerequisite or corequisite: PSYC 215 or PSYC 218 or EDUC 270
This course is a study of effective parenting. The course is designed for teachers of young children and parents and guardians who desire to provide an environment that reflects sensitivity to the unique needs of the individual child and family. Topics covered during the course are the history of child-rearing methods, an overview of child development, types of families, parent/guardian fears and concerns, purposes of child behavior, and effective communication techniques. Problem prevention and resolution, nurturing self-esteem in children and building effective, collaborative relationships between teachers and families are also covered. 2 hrs. lecture/wk.

EDUC 240
School-Age Programs and Curriculum I (3 CR)
Prerequisite: EDUC 130
This methods course is designed for students who are, or will be, working in an early childhood education setting and parents and caregivers who desire to develop an intellectually challenging environment for school age children. The focus of the course is on curriculum areas for the school-aged child and extended day and summer programs. 3 hrs. lecture/wk.

EDUC 243
Issues and Skills for Paraeducators (3 CR)
Students will be explore the issues, skills and challenges specific to working as a paraeducator. In particular, students will be introduced to the issues relating to the inclusion of students with special needs into the mainstream educational environment. Students will review and practice those skills necessary to being an
effective member of an instructional team, including collaboration, problem solving, decision making, team building and parent outreach. 3 hrs./wk.

EDUC 245  
School-Age Programs and Curriculum II (3 CR)  
Prerequisite: EDUC 240  
The student will study the creation and maintenance of a developmentally appropriate environment for school-age children in extended school day and summer programs. The student will acquire the skills and characteristics of effective educators. The student will explore types of programs and how to plan, implement and evaluate these programs. Also, staff supervision and development, record keeping, relevant state regulations and laws will be discussed. Collaboration with family and community, public relations and contributing to the profession will be studied. The lab will include demonstration of the subject matter. 2 hrs. lecture, 1 hrs. lab/wk.

EDUC 246  
Multicultural Issues in Education (2 CR)  
In this course students will explore the changing demographics of students in public schools. The course will also explore the ways in which a student’s culture can affect the student’s learning style, communication skill and behavior. The course will also describe strategies that take into account cultural differences, values and child-rearing practices when educators seek to create a safe and accepting environment for all students. 2 hrs. lecture/wk.

EDUC 250  
Child Health, Safety and Nutrition (3 CR)  
This course is a study of the basic health, nutrition and safety management practices for young children. Information on establishing and maintaining a physically and psychologically safe and healthy learning environment appropriate for the needs of young children will be included. The interrelation of health, safety and nutrition is stressed, with emphasis on appraisal procedures, prevention and protection, services and educational experiences for young children and their families. 3 hrs. lecture/wk.

EDUC 260  
Observing and Interacting with Young Children (3 CR)  
Prerequisite or corequisite: PSYC 215 or PSYC 218 or EDUC 270  
This course is a study of the role of observation to assess and monitor the development and learning of children, birth through age 8, and the appropriate techniques for interacting with young children, considering their individual differences. Included will be the purposes and types of observation procedures, interpretation and use of findings, reporting techniques, and legal and ethical responsibilities. Expected age-related child behavior, fundamental principles of and theoretical approaches to child guidance, guidance techniques, working with families, and issues of diversity are presented. The laboratory will include demonstration of the subject matter. 2 hrs. lecture, 3 hrs. lab/wk.

EDUC 270  
Early Childhood Development (3 CR)  
This course is a comprehensive account of human development from conception through age 8. The course integrates genetic, biological, physical and social influences with psychological processes affecting the development of young children. 3 hrs. lecture/wk.
EDUC 280
Administration of Early Childhood Program (3 CR)
This course is a study of the organization and administration of early childhood programs. The topics include the skills and characteristics of effective administrators: types of programs; planning, implementing and evaluating programs; policy development; staff supervision and development; finances and budget; record keeping; relevant state regulations and laws; developing, equipping and maintaining a facility; organizing a developmentally appropriate environment; collaboration with family and community; public relations; and contributing to the profession. The lab will include demonstration of the subject matter. 2 hrs. lecture, 3 hrs. lab/wk.

EDUC 284
Seminar: Early Childhood Education (3 CR)
Corequisite: EDUC 285
The course will focus on conduct and responsibilities of the intern; early childhood codes, laws and regulations; child development; activity planning and curriculum development; observation and guidance of young children; authentic assessment; responsibilities to the young child's family and community and to the teaching profession; employability skills; self-assessment; and job-seeking skills. The student's practical application of information in the internship will be discussed, and a portfolio will be developed. 3 hrs. lecture/wk.

EDUC 285
Student Teaching: Early Childhood Education (3 CR)
Prerequisite: Program facilitator recommendation Corequisite: EDUC 284
This supervised field experience in early childhood education is designed for students to apply their knowledge of teaching young children. The student will be participating in curriculum design and presentation; observing and interacting with young children; providing for the health, safety and nutrition of young children; managing the program setting; and working with families and the community. A self-assessment and a professional development plan are completed. The student will spend 20 hours a week (320 clock hours total) in at least two different early childhood settings, serving children of two different ages.

EDUC 290
Leadership in Early Childhood Education (3 CR)
Prerequisite: Program Facilitator Approval
The student will study how early childhood education program directors lead programs and create quality environments for children, families and staff. The leadership topics include: leadership styles; developing mission statements, program philosophies, procedures, manuals and handbooks; assessing and planning for program improvements; recruiting and retaining qualified early childhood teachers; creating professional growth opportunities; developing effective staff meetings; implementing a shared decision making process; utilizing conflict resolution strategies; and developing partnerships with families and community agencies. 3 hrs. lecture/wk.

Electrical Technology (ELTE)

ELTE 122
National Electrical Code I (4 CR)
This is an introductory course on the use and interpretation of the current National Electrical Code. Students should develop a working knowledge of the code that will permit them to apply it to everyday applications. Upon successful completion of this course, the student should be able to use the code to design service
entrances, feeders and branch circuits and discern between wiring methods used in difference occupancies. 4 hrs. lecture /wk.

ELTE 123
Electromechanical Systems (4 CR)
Upon successful completion of this course, the student should be able to identify electrical components and their relationships to the various repair and troubleshooting techniques. The materials in this course will prove useful to service technicians whose background in electricity is limited. The course includes material from basic electrical theory to troubleshooting complex electrical circuits. This course will provide practice in the application of electrical theory as well as in the interconnection of components of heating and cooling systems. The student will be required to provide ANSI Z87 safety glasses and may be expected to provide other basic hand tools and/or equipment. This is a beginning course in electrical theory that is required for HVAC, electrical and power plant technology but is appropriate for all interested students. Common components found in the HVAC industry are used to develop these skills. 3 hrs. lecture, 3 hrs. lab/wk.

ELTE 125
Residential Wiring Methods (4 CR)
Prerequisite or corequisite: HVAC 123 or ELTE 123
This is an introductory course on residential wiring methods that includes practical application and hands-on experience in implementing the code requirements. Upon successful completion of this course, the student should acquire the necessary skills to wire a residence to meet the minimum requirements as set forth in the current National Electrical Code for residential occupancies. The student will be required to provide ANSI Z87 safety glasses and may be expected to provide other basic hand tools and/or equipment. 3 hrs. lecture, 3 hrs. lab/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $125 to 300.

ELTE 200
Commercial Wiring Methods (4 CR)
Prerequisite or corequisite: HVAC 123 or ELTE 123
This course covers commercial wiring methods. Upon successful completion of this course, the student should be able to read commercial blueprints and apply the current National Electrical Code to commercial wiring systems. The student will gain working knowledge and hands-on experience with commercial wiring techniques. The student will be required to provide ANSI Z87 safety glasses and may be expected to provide other basic hand tools and/or equipment. 3 hrs. lecture, 3 hrs. lab/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $125 to 300.

ELTE 205
Industrial Electrical Wiring (4 CR)
Prerequisite: ELTE 122 or ELTE 125 or ELTE 200
This advanced course covers industrial wiring methods. Upon successful completion of this course, the student should be able to read industrial blueprints and apply the current National Electrical Code to industrial wiring systems. The student will gain working knowledge and hands-on experience with industrial wiring techniques. The student will be required to provide ANSI Z87 safety glasses and may be expected to provide other basic hand tools and/or equipment. 3 hrs. lecture, 3 hrs. lab/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $125 to 300.
ELTE 210  
**Code Certification Review (3 CR)**  
*Prerequisite: ELTE 122*  
Upon successful completion of this course, the student should be able to use the current National Electrical Code to do calculations involving loads, lighting and circuit sizing. The course will cover typical load calculations used in both residential and commercial settings. 3 hrs. lecture/wk.

ELTE 215  
**Generators, Transformers and Motors (4 CR)**  
*Prerequisite: ELTE 123 and one of the following: ELTE 122 or ELTE 125 or ELTE 200 or equivalent experience and division administrator's approval*  
This is an advanced course on the use of generators, transformers and motors. Upon successful completion of this course, the student should be able to interpret and apply the rules of the current National Electrical Code to wiring systems composed of these electrical components. Also, the student will gain a working knowledge of the theory of these single-phase and 3-phase electrical components and their practical applications in everyday use in the electrical industry. 4 hrs. lecture/wk.

ELTE 271  
**Electrical Internship I (3 CR)**  
*Prerequisite: Program facilitator approval*  
Upon successful completion of this course, the student should be able to apply classroom knowledge to an actual work situation. The internship will provide advanced students with on-the-job experience under the supervision of professionals in the industry. The work will be developed cooperatively with area employers, college staff and each student to provide a variety of actual job experiences directly related to the student's career goals. 1 hr. lecture, minimum 15 hrs. on-the-job training/wk.

**Electronics (ELEC)**

ELEC 120  
**Introduction to Electronics (3 CR)**  
This is a beginning course in electronics technology that is appropriate for both electronic majors and other interested students. An overview of basic electronic theory, principles and components is presented. In addition, the laboratory exercises will emphasize the operation and use of the primary pieces of electronic test equipment and the fabrication of selected circuits. 2 hrs. lecture, 2 hrs. lab-lecture, 2 hrs. lab/wk.  
*Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.*

ELEC 122  
**Circuit Analysis I (3 CR)**  
*Prerequisites: ELEC 120 and MATH 133 or MATH 172*  
This course covers resistive circuits having DC sources. Analysis topics include Ohm's law, Kirchhoff's law, the superposition theorem, Thevenin's theorem and Norton's theorem. The current, voltage and resistance relationships in series, parallel and combination circuits will be studied. 3 hrs. lecture/wk.

ELEC 123  
**Smart House Technology (3 CR)**
This course is a general introduction to the rapidly growing field of home technology and its integration and use. Lectures, demonstrations and lab work will be used to teach the types of home technology being sold and installed. This course is designed to assist new users to implement this technology in their own homes and as an introduction for students wanting to proceed further into the field as contractors or installers. 3 hrs. lecture/wk.

**ELEC 125**  
**Digital Electronics I** (4 CR)  
This is a beginning course in which students will study and practice the basic concepts of digital electronics. Topics will include digital number systems, logic gates, logic circuits, flip-flops, digital arithmetic, counters and registers. 3 hrs. lecture, 3 hrs. lab/wk.

**ELEC 126**  
**Microcomputer A+ Preparation** (4 CR)  
This course is designed to be a general introduction to personal computer hardware and operating system software. The course teaches the operation, installation and upgrade of all the major components of a typical PC. The course also provides the basic knowledge to prepare the student for passing the A+ test, which is the industry standard certification for personal computer technicians. Since A+ Certification is based upon the Windows Operating System and Intel/AMD-type microprocessors, these will be the basis of the course. The course will cover both of the A+ Certification testing areas: PC Hardware (Core Test) and Operating Systems (OS Test). 3 hrs. lecture, 3 hrs. lab/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $5 to 10.

**ELEC 130**  
**Electronic Devices I** (4 CR)  
*Prerequisite or corequisite: ELEC 140*  
This is the first course in electronic devices. Topics include diodes and transistors, special purpose diodes and diode application circuits. Both bipolar junction transistors (BJTs) and field effect transistors (FETs) are examined and application circuits for both transistor types are constructed. 3 hrs. lecture, 3 hrs. lab/wk.

**ELEC 131**  
**Introduction to Sensors and Actuators** (3 CR)  
This course examines types and uses of industrial sensors and actuators. Topics include temperature, pressure, optical, position and flow sensors. Operation of AC and DC motor drives will also be covered. The course will also include wiring and troubleshooting of sensors and actuators. Lecture topics will be supported by hands-on lab projects. 2 hrs. lecture, 3 hrs. lab/wk.

**ELEC 133**  
**Programmable Controllers** (3 CR)  
This is an introductory course in programmable logic controllers. The course is designed for individuals without extensive electrical or controller backgrounds. Hardware aspects and programming aspects of controller operation are covered. The foundational controller logic symbols and controller logic operations necessary to interpret and write ladder logic programs are taught in this class. Students will enter, edit and test controller programs through assigned laboratory projects. 2 hrs. lecture, 3 hrs. lab/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $5 to 10.
ELEC 140
Circuit Analysis II (3 CR)
Prerequisites: ELEC 122 and MATH 134 or MATH 172 or MATH 173
The analysis techniques presented in Circuit Analysis I will be applied to complex circuits driven by AC and pulsed sources. The responses of circuits having resistance, inductance and capacitance will be analyzed. Other topics include transformers and electrical filters. 3 hrs. lecture/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $5 to 30.

ELEC 150
Introduction to Telecommunications (3 CR)
This is an introductory-level course in telecommunications principles that includes both voice and data communications. An examination of the communications industry and its regulatory environment will be provided. Topics include voiceband communications, digital transmission, switching and signaling, and emerging technologies. 3 hrs. lecture/wk.

ELEC 165
Advanced Programmable Controllers (3 CR)
Prerequisite: ELEC 133
This course is a continuation of ELEC 133. Principle topics include sequences, file and block transfers, analog control and PID functions. In addition, methods of networking of PLCs and advanced user interfaces will be covered. Lecture topics will be supported by laboratory projects. 2 hrs. lecture, 3 hrs. lab/wk.

ELEC 175
Telecommunications (3 CR)
Prerequisite or corequisite: ELEC 130
This course studies hardware and software functions of telecommunication systems. Topics include both voice and data aspects of telecommunication systems, including terminology, interfaces, protocols, transmission media, networks and networking technologies. 2 hrs. lecture, 3 hrs. lab/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 TO 30.

ELEC 185
LAN Cabling and Installation (3 CR)
This course is designed to provide specialized skills for installing and testing local area network cabling and wireless installation. Twisted-pair, coax and fiber cables will be introduced and contrasted based on their characteristics and applications. Laboratory exercises for terminating and testing network cables and installing wireless systems will accompany the lectures. Students will be trained how to use common wiring tools and testing instruments. Methods of documenting LAN systems will also be introduced. 2 hrs. lecture, 3 hrs. lab/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

ELEC 195
Introduction to Wireless LANs (3 CR)
This course will introduce the student to the subject of wireless local area networks. The course will cover the types of equipment and their uses, correct configuration of equipment, types of security methods used, how to determine the physical lay-out of the access points and other equipment and procedures that can be used to administrate the network. 3 hrs. lecture, 2 hrs lab./wk.
ELEC 225  
Digital Electronics II (3 CR)  
*Prerequisite: ELEC 125*  
Students will continue their study of digital concepts and will learn how to build digital circuitry using digital integrated circuit chips and basic concepts of computer organization. In additional, emphasis will be placed on learning how to troubleshoot digital circuits and digital systems. Each student will build a digital computer through a series of laboratory projects. 2 hrs. lecture, 3 hrs. lab/wk.

ELEC 230  
Electronic Devices II (3 CR)  
*Prerequisite: ELEC 130*  
This class is a continuation of the electronic devices sequence. Topics include operational amplifiers, thyristors and voltage regulators. Operational amplifier applications include comparators, summing amplifiers, integrators, differentiators and active filters. 2 hrs. lecture, 3 hrs. lab/wk.

ELEC 240  
Electronic Communication Systems (4 CR)  
*Prerequisite or corequisite: ELEC 230*  
This course provides a study of electronic communication systems. Topics include the electromagnetic spectrum, decibels, noise, amplitude modulation, antennas, transmission lines and the global positioning satellite system. 3 hrs. lecture, 3 hrs. lab/wk.  
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 30.

ELEC 245  
Microprocessors (3 CR)  
*Prerequisite: ELEC 225*  
This course provides students with a basic knowledge of microprocessors and how microprocessors interface with other devices to create microcomputer systems. Students will learn how to write assembly language and machine language programs for a microprocessor as well as how to interface memory, input devices and output devices to a microprocessor. Additionally, emphasis will be placed on learning how to troubleshoot microprocessor-based systems. 2 hrs. lecture, 3 hrs. lab/wk.

ELEC 250  
Microcomputer Maintenance (3 CR)  
*Prerequisite: ELEC 126*  
This course is a continuation of the study of personal computers and will further the student's ability to maintain and repair them. In addition, this course will assist the student in preparing for computer-maintenance certification. Topics will include interaction of hardware and operating systems, resource conflicts, networking capabilities, common hardware and software problems, hardware differences of portable computers, and upgrading computers. The course topics will be supported by laboratory projects. 2 hrs. lecture, 3 hrs. lab/wk.  
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $5 to 10.

ELEC 271  
Electronics Internship I (1 CR)  
*Prerequisite: Assistant Dean's Approval*  
This course affords the student the opportunity to apply classroom knowledge to
an actual work environment. It will provide selected advanced electronics
technology students with appropriate on-the-job experience with area employers,
under instructional oversight, that will promote the student's career goals. 18 hrs.
approved and appropriate work activity/wk.

ELEC 272
Electronics Internship II (1 CR)
Prerequisites: ELEC 271 and approval of the program assistant dean
This course is a continuation of ELEC 271. It affords the student the opportunity to
apply classroom knowledge to an actual work environment. It will provide selected
advanced electronics technology students with appropriate on-the-job experience
with area employers, under instructional oversight, that will promote the student's
career goals. 18 hrs. of approved and appropriate work activity/wk.

Emergency Medical Science/MICT (EMS)

EMS 121
CPR I - Basic Life Support for Healthcare Provider (1 CR)
This course provides an overview of the cardiovascular and respiratory systems, a
discussion of medical and environmental emergencies leading to the need for
CPR, and an introduction to diagnostic signs and triage, as well as insight into the
structure and function of the emergency medical services system. The most
current practical CPR skills will be taught, including CPR, AED, and airway
obstruction techniques for adults, children and infants. Upon successful
completion of all American Heart Association standards, the student will receive
affirmation at the Healthcare Provider level. 4 hrs. lecture, lab/wk. for 5 wks.

EMS 125
CPR II-Basic CPR Instructor (1 CR)
Prerequisite: Successful completion of EMS 121 and/or current certification by
AHA as Basic Rescuer
This class will include a review and affirmation of Basic Rescuer techniques,
pRACTice in the design and implementation of CPR courses, demonstration of
manikin maintenance and decontamination procedures, and mini-lectures. Upon
successful completion of this class, students will be eligible for affirmation by the
American Heart Association as a BLS instructor. Each participant must teach or
cO-teach a CPR class while being monitored by an AHA faculty member before
the instructor affirmation card will be issued. 2.5 hrs. lecture, lab/wk. for 8 wks.
(average).

EMS 128
EMS First Responder (5 CR)
This course is designed to provide training in emergency medical care for those
who are apt to be the first persons responding to an emergency incident. Fire,
pOLICE, civil defense personnel, school bus drivers, day-care providers, utility
workers and industrial workers are a few examples of those persons who would
benefit from this training. The student will receive both didactic and psychomotor
skills training in CPR, patient assessment, fracture management, airway
management and trauma management. Successful completion of this course will
enable the student to sit for the First Responder certification exam administered
by the Kansas Board of Emergency Medical Services. 6 hrs. lecture, 6.5 hrs.
lab/wk. for 8 wks. (average).

EMS 130
Emergency Medical Technician (9 CR)

Prerequisite: EMS 128 or equivalent, or be an active member in a health-related occupation (firefighter, rescue, ambulance, law enforcement, industrial first-aid personnel or other health-related field), or attained the minimum of an associate’s degree

This program is designed for individuals interested in providing medical care to patients in the pre-hospital setting. It will provide the participants with opportunities to gain information, skills and attitudes necessary for certification and practice as an emergency medical technician (EMT) in the state of Kansas. This program has been approved by the Kansas Board of Emergency Medical Services (BEMS). It addresses information and techniques currently considered the responsibility of the EMT according to the United States Department of Transportation, National Standard Curriculum. The program consists of didactic instruction, practical skill training and clinical experience. Attendance at one Saturday session is required. Saturday date and time will be announced during the first class session. Classroom instruction includes anatomy, physiology, recognition and care of medical emergencies, and trauma-related injuries. CPR, bandaging, splinting, childbirth techniques and airway management are among the skills taught. An extrication session will give students hands-on experience with automobile accident situations. Upon instructor recommendation, students will participate in clinical and field observation. All transportation to and from off-campus sites is the responsibility of the student. Students completing this course with a minimum grade of “C” will be allowed to sit for the Kansas EMT State Certification Examination administered by the BEMS. 7 hrs. lecture, 5 hrs. lab/wk. (average)

EMS 133
Emergency Medical Technician Practicum (3 CR)

Prerequisite: EMS 130 or equivalent and a copy of current EMT-B card

EMT Practicum is designed to give the newly certified EMT-B the additional skills and confidence needed to successfully compete for a position as an EMT-B with an EMS service. Skills will include ambulance operation, driving, map reading, insurance billing and unit maintenance. This course will also provide high-fidelity scenario training in all aspects of the EMS call as well as extensive field lab time with a local EMS service. Students will participate in realistic medical emergency scenarios with “actors” playing life-like patients and bystanders as well as numerous field internship shifts on a licensed ambulance. Students will work through all phases of an ambulance call. They will be presented with complex patient care situations that require the development of critical thinking and decision-making skills. Students will be tested on their ability to lead a team of pre-hospital caregivers in the diagnosis, proper treatment and evacuation of a patient. Scenario simulations will be set up to be as life-like as possible. 2 hrs. lecture, 10 hrs. lab/wk.

EMS 140
Basic Cardiology and EKG Recognition (3 CR)

Prerequisites: Prospective students should be certified in a health profession, i.e., EMT, RN, LPN, EMT-P. Permission of the assistant dean is required.

The health care worker with an understanding of ECG tracing will function more effectively when providing care for the cardiac patient. Increasing numbers of professionals are being called upon to utilize ECG tracing in their work settings, but without adequate knowledge of its use. This course will serve as both continuing education and the preparation for the job entry and/or job advancement. During the course, students will learn to apply monitoring and 12-lead electrodes, diagnose ECG dysrhythmias and infarct locations, treat ECG dysrhythmias, and defibrillate ventricular fibrillation. 3 hrs. lecture/wk.

EMS 203
KS EMT - Intermediate/Defibrillator (11 CR)

Prerequisites: EMT-B and additional prerequisite and/or documentation
requirements. See assistant dean for details.

This course will cover selected advanced emergency medical care concepts and practices. This intermediate-level course advances the basic emergency medical technician's knowledge and skills in patient assessment, airway management, intravenous cannulation and manual defibrillation. The KS EMT-I/D's knowledge and skills are intermediate between the EMT-Basic and the EMT-Paramedic. Upon successful completion of this course, the student will be able to utilize the assessment findings to formulate a field impression and implement the treatment plan for the patient suffering a medical or trauma emergency. As the KS-EMT-I/D demonstrates cognitive and motor skill competency in the classroom and skills laboratory, his or her training will proceed to the clinical and field environments, where the knowledge, skills and attitudes necessary for professional practice will be practiced, synthesized and perfected. 7 hrs. lecture, 5 hrs. lab, 10 hrs. clinical/field experience/wk.

EMS 206
Training Officer I (1 CR)
Prerequisite: Kansas Board of EMS certification at the Emergency Medical Technician - Basic (EMT-B) level or above and approval of the course instructor

This course is a requirement for the Kansas Board of Emergency Medical Services (KSBEMS) certification as a Training Officer (TO). The course is intended to prepare the student to plan, implement, coordinate, teach and evaluate continuing education programs. The course is a prerequisite for Training Officer II. 15 hrs. lecture, 5 hrs. lab total

EMS 207
Training Officer II (2 CR)
Prerequisite: Kansas Board of Emergency Medical Services certification at the provider level the student wishes to teach, completion of EMS 206 Training Officer I and approval of the course instructor

This course is a requirement for the Kansas Board of Emergency Medical Services (KSBEMS) certification as a Training Officer (TP). The course is intended to prepare the student to plan, implement, coordinate, teach and evaluate continuing education programs. As a TOII a student will also be qualified to plan, implement, coordinate, teach and evaluate Initial Instruction Programs for the First Responder level of certification in Kansas. 33 hrs. lecture, 7 hrs. lab total

EMS 210
Emergency Medical Services Instructor Coordinator (5 CR)
Prerequisites: Prospective students must meet all the requirements for selection as set forth by the Kansas Board of Emergency Medical Services, which includes certification as a care provider, documentation of pre-hospital experience and successful completion of the BEMS pre-selection process

This course covers the basic tenets of adult education as they apply to teaching emergency medical services provider courses. Students are oriented to all Kansas requirements for conducting initial courses of instruction for ambulance attendants. Successful completion will be the first step toward certification as a Kansas EMS instructor coordinator. This program has been approved by the Kansas Board of Emergency Medical Services (BEMS). It addresses information and techniques currently considered the responsibility of the EMT-IC according to the United States Department of Transportation, National Standard Curriculum. 5 hrs. lecture-demonstration/wk. for 8 wks.

EMS 220
MICT I (10 CR)
Prerequisite: Admission to the MICT program

MICT I is the first of four courses in advanced out-of-hospital emergency medical
care leading to the opportunity to sit for the National Registry Examination for Paramedics. In this narrowly focused but intense foundational course, the paramedic student will gain a significant knowledge of patient assessment, pharmacology and medication administration techniques, electrocardiography, advanced airway management, and paramedic scope of practice. Much material will be covered rapidly, and emphasis is on organization, internalization and synthesis of the basic knowledge of the discipline in this 9-week course. Additionally, during the initial psychomotor teaching labs, students will gain the ability to assess patients, administer medications, treat dysrhythmias and manage the airway through manikin practice. 24 hrs. lecture/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $700 to 1,000.

EMS 225
MICT II (10 CR)
Prerequisite: EMS 220 with a minimum grade of "C"

MICT II is the second of four courses in advanced out-of-hospital emergency medical care leading to the opportunity to sit for the National Registry Examination for Paramedics. This course builds on the foundational knowledge developed in MICT I and covers advanced management of medical and trauma emergencies in the out-of-hospital environment. Much material will be covered rapidly, and emphasis is on organization, internalization, synthesis and application of the basic knowledge of the discipline in this 9-week course. Students demonstrate competency at motor skill performance, and extensive simulation practice is afforded. Students begin field observation with a paramedic ambulance crew and complete an Advanced Cardiac Life Support Course. 24 hrs. avg. lecture/wk., 12 hrs. lab/field observation avg./wk.

EMS 230
MICT III Clinicals (12 CR)
Prerequisite: EMS 225 with a minimum grade of "C"

MICT III is the third of four courses in advanced out-of-hospital emergency medical care leading to the opportunity to sit for the National Registry Examination for Paramedics. During MICT III, paramedic students have the opportunity to take the knowledge and skills gained in MICT I and II and apply them in actual supervised clinical practice. MICT III represents a brief, intense 14-week course in which knowledge and skills are synthesized and applied to patients under supervision of physicians and nurses in clinical practice in the emergency department, critical care unit, surgery/recovery room, labor/delivery room, pediatric emergency department and burn center. Field observation lab and classroom and laboratory review are included as well. 4 hrs. lecture avg./wk., 44 hrs. clinical/lab/field avg./wk.

EMS 271
MICT IV Field Internship (15 CR)
Prerequisite: EMS 230 with a minimum grade of "C"

MICT IV is the final of four courses in advanced out-of-hospital emergency medical care leading to the opportunity to sit for the National Registry Examination for Paramedics. During MICT IV, paramedic students have the opportunity to take the knowledge and skills gained in MICT I, II and III and apply them in an actual practice environment. MICT IV represents an intense 4-month course in which knowledge, skills and professional behaviors are synthesized and applied to victims of sudden trauma or medical emergencies under supervision of paramedic preceptors at the emergency scene and in the ambulance. Entry-level competence into the profession is demonstrated as the student demonstrates the ability to assess the scene and the patient, develop a plan for therapeutic intervention as well as scene management, and effectively lead the out-of-hospital resuscitation team's effort. Classroom and laboratory review are included. 4 hrs. lecture avg./wk., 56 hrs. clinical/lab/field avg./wk.
ENGR 121  
**Engineering Orientation (2 CR)**  
Upon successful completion of this course, the student should be able to describe careers in engineering and use fundamental concepts in engineering problem solving. Topics include engineering disciplines, aptitude and academic requirements, professional responsibilities, problem definition and solution, engineering design, and terminology. Students will meet professional engineers during field trips to engineering companies and work sites. The primary intent of this course is to introduce students to the engineering problem-solving process and to help each student make the best career decision. 2 hrs. lecture/wk.  

ENGR 131  
**Engineering Graphics I (4 CR)**  
*Corequisite: MATH 133 or MATH 171 or MATH 172 or MATH 173 or MATH 241*  
Upon successful completion of this course, the student will be able to apply graphic principles used in the engineering design process. The student will master graphics concepts using computer-aided drafting (CAD) software. Topics include 2-D and 3-D CAD commands; geometric construction; multi-view, orthographic projection; sectional views; isometrics; dimensioning; and descriptive geometry. 3 hrs. lecture, 4 hrs. lab/wk.  

ENGR 171  
**Programming for Engineering and Science (3 CR)**  
*Prerequisite: MATH 171*  
At the completion of this course, the student should be able to design algorithms for the solution of engineering and science problems using pseudocoding and flowcharting techniques; code the solution in the FORTRAN programming language; and compile, test and debug the program. Programming concepts covered will include data input from the keyboard and data files, formatted output, sequence, selection and iteration structures, function and subroutine subprograms and array processing. Proficiency with conversions and math in the decimal, binary and hexadecimal numbering systems will also be attained. This is a beginning course that will prepare students for more advanced studies in engineering and science computer applications. 2 hrs. lecture, 2 hrs. lab/wk.  

ENGR 180  
**Engineering Land Surveying I (3 CR)**  
*Corequisite: MATH 134 or MATH 172*  
Upon successful completion of this course, the student should be able to identify the basic applications of plane surveying procedures; measurement of horizontal distances, directions, angles, leveling, traversing, curves and stadia coordinates; computations with the aid of a computer; and topographical property and construction surveying. Students will take part in field operations using equipment such as auto levels, theodolites, EDM and total station. 2 hrs. lecture, 3 hrs. lab/wk.  

ENGR 251  
**Statics (3 CR)**  
*Prerequisite: MATH 242 Corequisite: PHYS 220*  
Upon successful completion of this course, the student should be able to describe and predict the conditions of rest and motion of bodies under the action of forces. The principles used will include vectors, force systems, equilibrium, free body diagram, centroids, moments of inertia, trusses, frame, and shear and moment...
diagrams. This course is typically offered in the summer and fall semesters. 3 hrs. lecture/wk.

**ENGR 254**
**Dynamics (3 CR)**
*Prerequisites: ENGR 251*
Upon successful completion of this course, the student should be able to apply the principles of dynamics, the branch of engineering mechanics that studies objects in motion. Topics covered will include unbalanced force systems (Newton's second law), displacement, velocity and acceleration, work and energy, and impulse and momentum. Computer applications will be included. This course is typically offered in the spring semester. 3 hrs. lecture/wk.

### English (ENGL)

**ENGL 102**
**Writing Strategies (3 CR)**
*Prerequisite: Appropriate placement test score*
This course assists the student in developing strategies for sentence writing. The course is designed to meet a variety of learning styles, levels and needs. Students will develop strategies for self-monitoring errors in written products. Students are taught strategies for writing a variety of sentence formats and have extensive practice in writing sentences as a means of implementing new information. 3hrs./wk. This course does not fulfill degree requirements. Students must take the JCCC writing assessment test before enrolling. For more information, see a JCCC counselor.

**ENGL 103**
**Practical Writing Skills (1 CR)**
At the completion of this course, the student should be able to recognize and write complete sentences. The student will write a variety of sentences using strategies for building sentences with phrases and clauses as well as editing sentences through coordination and subordination. The student will then practice developing paragraphs in various organizational modes. Along with writing the student will read selected prose and write responses to these readings. The course is designed specifically to aid non-native speaking students in acquiring writing skills through individualized instruction. The aim of this course is to enhance/supplement the English as a Second Language program already offered at JCCC. Also, because hearing-impaired students have similar difficulties with the English language as ESL students, this course addresses the challenges often faced by this student population. This course meets by arrangement in the Writing Center. This course does not fulfill degree requirements. After registering for this course, the student should contact the Writing Center.

**ENGL 105**
**Basic English Grammar (3 CR)**
The aim of English 105 is to introduce the student to the basic structures in English grammar: parts of speech, sentence types, phrases and clauses. Students learn to use correct punctuation. Moving from joining short phrases to the basic sentence, students learn to combine ideas to form a variety of sentence structures. Students practice skills, working in class (often in pairs or groups) and making use of computer programs in the Writing Center. Grammar games are used to help prepare students for a test. 3 hrs./wk. This course does not fulfill degree requirements.
ENGL 106
Introduction to Writing (3 CR)
Prerequisite: ENGL 102 or appropriate score on assessment test
Beginning with a review of basic sentence skills, this course focuses on paragraph development, including subject selection, topic sentences, methods of development, transitional devices and effective introductions and conclusions. The last part of the course will focus on developing multi-paragraph essays. 3 hrs./wk. This course does not fulfill degree requirements. Students must take the JCCC writing assessment test. For more information, see a JCCC counselor.

ENGL 107
Sentence Pattern Skills (1 CR)
At the completion of this course, the student should be able to identify the parts of speech, elements of a sentence and basic sentence patterns. Emphasis is on sentence combining and sentence composing. Students are told that grammar in isolation will not improve writing skills, and they are encouraged to practice writing. This course meets by arrangement in the Writing Center. This course does not fulfill degree requirements. After registering for this course, the student should contact the Writing Center.

ENGL 108
Composing Skills (1 CR)
After completing Composing Skills, students will be able to choose a topic, narrow the topic, and organize and develop with supporting evidence a variety of paragraph modes. The student will be able to achieve paragraph unity, coherence and emphasis. Also, the student will learn revision and editing strategies. Course meets by arrangement in the Writing Center. This course does not fulfill degree requirements. After registering for this course, the student should contact the Writing Center.

ENGL 109
Proofreading Skills (1 CR)
This 1-credit module is designed to provide students with strategies and rules that will help them recognize and repair common grammar, usage and mechanical errors in their writing. This course focuses on the major and minor errors as set forth in the English program objectives (available in the Writing Center). Students will learn to recognize and correct these errors, not only on exercise sheets, but also in their own writing. This class meets by arrangement in the Writing Center. This course does not fulfill degree requirements. After registering for this course, the student should contact the Writing Center.

ENGL 110
English Grammar Review (1 CR)
English Grammar Review helps students to review the parts of speech, elements of a sentence, basic sentence patterns, major sentence level errors, agreement errors and punctuation. Students are encouraged to practice writing. Course meets by arrangement in the Writing Center. This course does not fulfill degree requirements. After registering for this course, the student should contact the Writing Center.

ENGL 112
Research Skills (1 CR)
Research Skills is a review of the various aspects of the research process, beginning with limiting the subject and moving to revising the finished product. Emphasis is on the gathering of resource materials, synthesizing the information
and developing an essay in which the resource information is used to support a thesis and is documented in an approved academic form. This course meets by arrangement in the Writing Center. This course does not fulfill degree requirements. After registering for this course, the student should contact the Writing Center.

ENGL 115
Revision Skills (1 CR)
Revision Skills is designed to instruct the practicing writer in skills needed to revise all writing, including business, college and personal writing. Students will use computer programs and self-paced materials. Revision Skills is intended to complement courses in which writing is assigned. Students will be encouraged to bring in business communication or college assignments to apply the learned skills. Course meets by arrangement in the Writing Center. This course does not fulfill degree requirements. After registering for this course, the student should contact the Writing Center.

ENGL 120
Writing in the Disciplines (1 CR)
This course is designed to complement and/or support classes in which writing is intrinsic to the curriculum and provide students with a process that can be applied to the variety of written assignments typically assigned in classes other than composition. Students will practice writing a variety of short papers using a prescribed process for each assignment. The course is individualized. Students enrolled in this class must come to the Writing Center, LIB 308, to make arrangements for their class schedule, to pick up a syllabus and other materials, and to be assigned an instructor. The course is a combination of written material and software. All completed work will be kept in a folder in the Writing Center. Students should anticipate approximately 20 hours of work to complete the course. This course does not fulfill degree requirements.

ENGL 121
Composition I (3 CR)
Prerequisite: ENGL 106 or appropriate placement test score or EAP 113 and EAP 117
Composition I focuses on writing nonfiction prose suitable in its expression and content to both its occasion and its audience. Students will have an opportunity to improve in all phases of the writing process: discovering ideas, gathering information, planning and organizing, drafting, revising and editing. Each essay written in the course should clearly communicate a central idea or thesis, contain sufficient detail to be lively and convincing, reflect the voice of the writer and use carefully edited standard written English. 3 hrs./wk. Students must take the JCCC writing assessment test or submit an ACT score of 19 or higher before enrolling. For more information, see a JCCC counselor. This course may be offered as a Learning Communities (LCOM) section, see current credit schedule for LCOM details.

ENGL 122
Composition II (3 CR)
Prerequisite: ENGL 121
Because so much writing required in college and in the workplace demands the ability to synthesize information gathered from various sources, Composition II will focus on skills essential to gathering, comprehending, analyzing, evaluating and synthesizing information. Composition II also emphasizes organizing and polishing steps important in composing expository, evaluative and persuasive prose. 3 hrs./wk. This course may be offered as a Learning Communities (LCOM) section, see current credit schedule for LCOM details.
ENGL 123
Technical Writing I (3 CR)
Prerequisite: ENGL 121
This course provides a basic knowledge of technical writing. Students will learn the writing process (prewriting, writing and rewriting) to follow when constructing correspondence, including memos, letters, e-mail, reports, instructional manuals and Web pages. Students also will learn seven key traits of effective technical writing: clarity, conciseness, document design, organization, audience recognition, audience involvement and accuracy. Accuracy specifically entails the need for students to adhere to rules of grammar and mechanics. Students will learn how to create computer-generated graphics and learn word processing skills. Finally, the students will learn how to work in teams, modeling Total Quality Management skills. 3 hrs./wk.

ENGL 130
Introduction to Literature (3 CR)
Prerequisite: ENGL 121
Students will read, discuss and analyze works from three literary genres: the short story, the poem and the play. Students will learn and apply the technical vocabulary used in the criticism of these literary forms. Students will be introduced to representative works from various literary traditions and cultures, including numerous works from contemporary writers. 3 hrs./wk. This course may be offered as a Learning Communities (LCOM) section, see current credit schedule for LCOM details.

ENGL 140
Writing for Interactive Media (3 CR)
Prerequisite: ENGL 121
This course teaches students to apply the writing process as well as fundamental rhetorical and composition skills to various interactive media including Web pages, CD-ROMs/DVD, e-mail, kiosks, computer program packages and other electronic media. The instruction will focus on skills essential to selecting, evaluating and synthesizing information from primary and secondary sources; in addition, it will emphasize the different approaches to organization that these media require as well as the variety of discourse styles used in informative, instructional, persuasive and entertainment media texts. 3 hrs. lecture/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

ENGL 150
Digital Narratives (3 CR)
Prerequisite: ENGL 121
Games, particularly Role-Playing Games (RPGs) and other participatory narratives, share many properties with traditional narratives, yet differ significantly from their linear counterparts. This course focuses on the elements of narrative as well as the principles that drive virtual or alternative possible worlds (both fictive and reality-based), and it will provide students with practice writing and designing artifacts that demonstrate an understanding of plot, character, setting and the impact of structure and purpose in game development. 3 hrs. lecture/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $20 to 30.

ENGL 210
Technical Writing II (3 CR)
Prerequisite: ENGL 123
This course provides an advanced knowledge of technical writing. Students will learn the writing process (prewriting, writing and rewriting) to follow when constructing correspondence. Types of technical writing covered in this course
include memos, letters, e-mail, short reports, long reports, instructional manuals, Web pages, PowerPoint presentations, brochures, newsletters, journal articles, resumes and online resumes. Students also will learn seven key traits of effective technical writing: clarity, conciseness, document design, organization, audience recognition, audience involvement and accuracy. Accuracy specifically entails the need for students to adhere to rules of grammar and mechanics. Students will learn how to create computer-generated graphics and learn word-processing skills. Finally, the students will learn how to work in teams, modeling Total Quality Management skills. 3 hrs./wk.

ENGL 222
Advanced Composition (3 CR)
Prerequisite: ENGL 122
This course offers challenging insights into the act of writing. We will move beyond Composition I and Composition II, focusing on writing persuasively to a select audience; working together to anticipate and defuse objections; supply convincing evidence; synthesize the ideas of others to support our ends; look critically at all sources; and perfect a mature, polished style that is suitable to audience and occasion. 3 hrs./wk.

ENGL 223
Creative Writing (3 CR)
Prerequisite: ENGL 122
Students will study and practice writing in two or three of the major literary modes of writing: poetry, fiction, and possibly drama. The reading assignments are based on the premise that, to be a good writer, students must have knowledge of literary techniques and be perceptive readers and critics. Students will examine techniques of two or possibly three of the literary genres and then apply their knowledge to write in each genre. In addition, they will read other students’ work and provide useful feedback on that work. 3 hrs./wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

ENGL 224
Creative Writing Workshop (3 CR)
Prerequisite: ENGL 223
In this class, students will build upon the knowledge and skills learned in ENGL 223. In addition to studying writing techniques, they will produce a body of written work in one or more literary genres of their choice: poetry, fiction, and/or drama. They will also read other students’ work and provide useful feedback on that work. 3 hrs./wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $15 to 25.

ENGL 227
Introduction to Poetry (3 CR)
Prerequisite: ENGL 122
This course emphasizes close reading and analysis of poetry by writers from different time periods, countries, and ethnic backgrounds. Students will study terms, patterns, and forms that are useful for an understanding and appreciation of poetic verse. The course will cover major literary, historical, and cultural movements as they relate to poetry. Students will be introduced to major classical and contemporary American and English poets, along with contemporary foreign-language poetry in translation. 3 hrs. lecture/wk.

ENGL 230
Introduction to Fiction (3 CR)
Prerequisite: ENGL 122
This course features significant opportunities to write about the literature and the reader's response to it. Students will learn the historical fictional precedents of the short story; the similarities and differences between the short story and other narrative forms, such as the novel; the differences between the short story and its historical precedents, between short stories and film adaptations of them, and between commercial and literary short stories. Students will discover the place of short stories in major literary movements, the key elements of short stories and interpretive approaches to short stories. 3 hrs./wk.

ENGL 231
American Prose (3 CR)
Prerequisite: ENGL 122
American Prose presents a series of literary works by American writers that reflects the attitudes and identity of our national literature and culture. By grappling with the ideas and characterizations presented in each literary work, the student develops meaningful insights into the attitudes and human conditions that influence America's national literary identity. 3 hrs./wk.

ENGL 232
Children's Literature (3 CR)
Prerequisite: ENGL 122
Children's Literature is meant for all students interested in bringing children and books together but is especially suited for who are students with English or education majors; teachers already in the elementary school classroom; parents; those working with children in preschools, day-care centers and libraries; and grandparents and prospective parents. The course would also benefit those exploring the field of writing and illustrating for children. Students will identify children's needs and interests, list the criteria for choosing books for children, and demonstrate the means by which we can bring children and books together. Students will read, examine and critique a variety of children's literature selected by author, genre and historical time period. 3 hrs./wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $20 to 50.

ENGL 235
Drama as Literature (3 CR)
Prerequisite: ENGL 122
This course introduces students to the analysis of plays as literature. Beginning with the Greek dramatists and ending with the contemporary scene, students will read full-length plays and the comments of playwrights, directors, actors and critics. They will analyze drama from psychological, historical, philosophical, structural and dramafic perspectives. Students will write essays demonstrating their understanding of the works studied. 3 hrs./wk.

ENGL 241
British Writers (3 CR)
Prerequisite: ENGL 122
This course emphasizes reading and discussion of works by selected major British writers and includes related writing projects. Students will identify important biographical details; explore the historical, cultural and artistic context of major writers and their works; and identify and evaluate the use of significant literary devices. The course emphasizes the relationships among influential writers, their lives and times and their works important to our cultural heritage. 3 hrs./wk.

ENGL 243
Literature of Science Fiction (3 CR)
Prerequisite or corequisite: ENGL 122
This course examines the literature of science fiction, especially from 1960 through the present. Students explore the unifying concepts of science and technology, depicted through imaginative narratives of the past, present and future. Students read short stories and/or novels, view science fiction films and discuss key science fiction concepts. 3 hrs. lecture/wk. This course may be offered as a Learning Communities (LCOM) section, see current credit schedule for LCOM details.

ENGL 245
Writing Literature for Children (3 CR)
Prerequisite: ENGL 232
Writing Literature for Children is a continuation of Introduction to Children's Literature aimed primarily at those students interested in writing and publishing literature for children. The students will review children's needs and interests, research topics and collect data for possible books. Then students will write and assemble a variety of children's literature. Students will critique their own work and that of their peers and revise their work accordingly. Finally, students will compose all correspondence typically required by publishers. 3 hrs./wk.

ENGL 250
World Masterpieces (3 CR)
Prerequisite: ENGL 122
World Masterpieces introduces students to literary study using major literary works composed from the times of Homer to Shakespeare that have been influential in shaping and expressing values of Western culture. Students will read selections representative of the epic, tragic, comic and lyric traditions primarily to gain knowledge of the works assigned. In addition, students will analyze the assigned texts as literary works and as cultural artifacts and influences. Finally, students will compare and contrast contemporary understandings of the individual and society with those expressed in the works studied. In completing the course objectives, students will learn the conventions of writing about literature and become familiar with general reference materials useful in studying literature. 3 hrs./wk.

ENGL 254
Masterpieces of the Cinema (3 CR)
Prerequisite: ENGL 122
This course examines the development of cinema from the early experiments in the late 1800s up to the present day, presenting the history and art of both American and international cinema. Students read the textbook, view short and full-length films, and discuss important cinematic techniques and concepts. Students verify their judgments by summarizing and analyzing these important concepts, using discussions, and writing effective, well-organized essays in response to cinematic presentations and explanations. 3 hrs./wk.

ENGL 256
American Poetry (3 CR)
Prerequisite: ENGL 122
American Poetry presents a planned reading schedule and directed discussion of poems that reflect the attitudes of American poets and American culture. By grappling with the ideas and characterizations presented in these poems, students can develop meaningful insights into the attitudes and human conditions that have influenced America's national literary identity. 3 hrs./wk.
EAP 091
Reading/Vocabulary I and Writing/Grammar I (6 CR)
Prerequisite: Appropriate assessment test score
This course, which pairs three-credit hours of reading/vocabulary with three-credit hours of writing/grammar, provides students who are English Learners (ELL) with an integrated communicative experience on the beginning college level. Students who successfully complete EAP 091 will be awarded three hours of credit for EAP 101 Writing and Grammar I and three hours of credit for EAP 120 Reading and Vocabulary I. The teaching of this course will be shared by two instructors. This course does not fulfill degree requirements.

EAP 092
Reading/Vocabulary II and Writing/Grammar II (6 CR)
Prerequisite: Appropriate score on an assessment test or (EAP 091 and EAP 105) or (EAP 101 and EAP 120 and EAP 105)
This course, which pairs three-credit hours of reading/vocabulary with three-credit hours of writing/grammar, provides students who are English Learners (ELL) with an integrated communicative experience on the beginning college level. Students who successfully complete EAP 092 will be awarded three hours of credit for EAP 103 Writing and Grammar II and three hours of credit for EAP 121 Reading and Vocabulary II. The teaching of this course will be shared by two instructors. This course does not fulfill degree requirements.

EAP 093
Reading/Vocabulary III and Writing/Grammar III (6 CR)
Prerequisites: Appropriate COMPASS ESL score or (EAP 092 and EAP 107) or (EAP 103 and EAP 121 and EAP 107)
This course, which pairs three-credit hours of reading/vocabulary study with three-credit hours of writing/grammar, provides students who are English Language Learners (ELL) with an integrated communicative experience on the high intermediate level. Students will further develop their skills in reading and writing fluency comprehension, vocabulary and grammar. Writing activities will focus on paragraph and multi-paragraph writing.

EAP 101
Writing and Grammar I (3 CR)
Prerequisite: Appropriate COMPASS ESL score and Corequisite: EAP 120
This course, which is paired with EAP Reading and Vocabulary I, provides English as a Second Language students an integrated communicative experience at the beginning college level. As part of a Learning Community, students will learn effective writing techniques for using American English at the sentence and basic paragraph level. The course will also focus on basic study and learning strategies to aid writing. This course is the first writing and grammar course in the sequence of courses for English for Academic Purposes. 3 hrs lecture/wk. This course does not fulfill degree requirements.

EAP 103
Writing and Grammar II (3 CR)
Prerequisite: (EAP 091 and EAP 105) or (EAP 101 and EAP 120 and EAP 105) or appropriate text score and Corequisite: EAP 121
This course, which is paired with EAP Reading and Vocabulary II, provides English as a Second Language students an integrated communicative experience. As part of a Learning Community, students will focus on using
American English in writing at the paragraph level. The course will also focus on learning and study strategies to enhance writing. This course is the second writing and grammar course in the sequence of courses for English for Academic Purposes. 3 hrs. lecture/wk. This course does not fulfill degree requirements.

**EAP 105**  
**Speaking and Pronunciation I (3 CR)**  
*Prerequisite: Appropriate score on an assessment test.*  
This course provides English as Second Language students the opportunity to develop their speaking and pronunciation skills. Focus will be on effective techniques for using American English in academic, career and personal settings. 3 hrs. lecture/wk. This course does not fulfill degree requirements.

**EAP 107**  
**Speaking and Pronunciation II (3 CR)**  
*Prerequisite: (EAP 101 and EAP 120 and EAP 105) or (EAP 091 and EAP 105) or appropriate test score*  
This course provides English as Second Language students the opportunity to expand fluency in speaking and pronunciation. The course covers techniques for listening with accuracy and speaking with the stress, rhythm and intonation of American English. Personal communications and group interactions in academic, career and community settings are included. The course concludes with applications to individual life goals. 3 hrs lecture/wk. This course does not fulfill degree requirements.

**EAP 111**  
**Writing and Grammar III (3 CR)**  
*Prerequisite: Either (EAP 092 and EAP 107) or EAP 103 and EAP 121 and EAP 107) or appropriate COMPASS ESL score and Corequisite: EAP 122*  
This course, which is paired with EAP Reading and Vocabulary III, provides English as a Second Language students an integrated communicative experience at the intermediate level. As part of a Learning Community, students will focus on developing fluency in writing using American English at the paragraph and multi-paragraph level. The course includes study strategies and writing assignments related to the reading Learning Community component. This course is the third writing and grammar course in the sequence of courses for English for Academic Purposes. 3 hrs. lecture/wk.

**EAP 113**  
**Writing and Grammar IV (3 CR)**  
*Prerequisite: Either (EAP 111 and EAP 122 and EAP 115) or (EAP 093 and EAP 115) or appropriate COMPASS ESL score*  
This course provides English as a Second Language students the opportunity to improve fluency in American English in writing at the high intermediate to advanced level. Students will engage in writing tasks that relate to the academic disciplines. The course includes reading activities from the academic disciplines and study strategies appropriate for academic tasks. This course is the fourth writing and grammar course in the sequence of courses for English for Academic Purposes. 3 hrs. lecture/wk.

**EAP 115**  
**Speaking and Pronunciation III (3 CR)**  
*Prerequisite: Either (EAP 092 and EAP 107) or (EAP 103 and EAP 121 and EAP 107) or appropriate COMPASS ESL score*
This course provides English as a Second Language students the opportunity to enhance fluency in speaking, pronunciation, and listening at the upper intermediate level. Students apply standard American communication patterns to understand lectures, speak in academic settings, and communicate in group interactions. Informal and formal projects include oral reports in specific fields of study and academic debates. The course concludes with analysis of individual goals and assessments to enhance academic success. 3 hrs. lecture/wk.

**EAP 117**  
**Speaking and Pronunciation IV (3 CR)**  
*Prerequisite: Either (EAP 111 and EAP 122 and EAP 115) or (EAP 093 and EAP 115) or appropriate COMPASS ESL score*  
This course offers English as a Second Language students the opportunity to master speaking, pronunciation, and listening at an advanced level. Pronunciation performance will be enhanced for accent reduction and communication of precise meanings of standard American English. Students apply advanced strategies to process knowledge from specific fields of study and give presentations with idiomatic vocabulary from classical literature, media, and other research sources. The course concludes with expansion of sociolinguistic and cultural competencies for group interactions and large audiences. Pre- and post-assessments measure progress in exit competencies. 3 hrs. lecture/wk.

**EAP 120**  
**Reading/Vocabulary I (3 CR)**  
*Prerequisite: Appropriate COMPASS ESL score and Corequisite: EAP 101*  
This course (EAP 120/RDG 120), which is paired with EAP 101 Writing and Grammar I, provides English as a Second Language students an integrated communication experience on the beginning college level. As part of a Learning Community, students will learn effective techniques for reading, studying and using American English in an academic setting. This is the first reading course in the English for Academic purposes series. This course does not fulfill degree requirements.

**EAP 121**  
**Reading/Vocabulary II (3 CR)**  
*Prerequisite: Either (EAP 091 and EAP 105) or (EAP 101 and EAP 120 and EAP 105) or appropriate COMPASS ESL score and Corequisite: EAP 103*  
This course (EAP 121/RDG 121), which is paired with EAP Writing and Grammar II, provides English as a Second Language students the opportunity to develop reading fluency, comprehension and vocabulary in a Learning Community setting. Reading, writing, speaking and listening will be integrated, and students will learn effective techniques for studying and using American English in an academic setting. This is the second reading course in the English for Academic Purposes series. 3 hrs. lecture/wk. This course does not fulfill degree requirements. EAP 121 and RDG 121 are the same course; do not enroll in both.

**EAP 122**  
**Reading and Vocabulary III (3 CR)**  
*Prerequisite: Either (EAP 092 and EAP 107) or (EAP 103 and EAP 121 and EAP 107) or appropriate COMPASS ESL score and Corequisite: EAP 111*  
This course (EAP 122/RDG 122), which is paired with EAP Writing and Grammar III, provides English as Second Language students an integrated communicative experience at the intermediate level. Students will develop reading fluency, comprehension, and vocabulary in a Learning Community setting. Reading, writing, speaking, and listening will be integrated, and students will learn effective techniques for using American English to read and study in an academic setting. This course is the third reading course in the English for Academic Purposes series. 3 hrs. lecture/wk.
ENTR 120
Introduction to Entrepreneurship (2 CR)
The student will understand the role of entrepreneurial businesses in the United States and the impact on our national and global economy. The student will evaluate the skills and commitment necessary to successfully operate an entrepreneurial venture. Additionally, the student will review the challenges and rewards of entrepreneurship as a career choice as well as entrance strategies to accomplish such a choice. 2 hrs. lecture/wk.

ENTR 131
Financial Management for Small Business (2 CR)
Prerequisite: ACCT 111 or ACCT 121
Upon successful completion of this course, the student should be able to identify and evaluate the various sources available for funding a small business; demonstrate an understanding of financial terminology; read, prepare and analyze a financial statement; and write a loan proposal. In addition, the student should be able to explain the importance of working capital and cash management. The student should also be able to identify financing needs, establish credit policies, and prepare sales forecasts. This course is required for a vocational certificate and associate of applied science degree in business entrepreneurship. 2 hrs./wk.

ENTR 142
Fast Trac Business Plan (3 CR)
Upon successful completion of this course, the student will be able to evaluate a business concept and write a sound business plan. In the process of doing so, students will be able to assess the strengths and weaknesses of a business concept; collect and organize market research data into a marketing plan; and prepare the financial projects for their business concept. In addition, students will be able to identify and evaluate various resources available for funding small businesses. The course is required for the business plan certificate, the vocational certificate in business entrepreneurship and the associate of applied science degree in business entrepreneurship. 3 hrs. lecture/wk.

ENTR 160
Legal Issues for Small Business (2 CR)
Upon successful completion of this course, the student should be able to identify the forms of business ownership and the legal and tax implications for each. In addition, the student should be able to explain laws covering issues such as personnel, contracts and protection of intellectual property. The student should also be able to explain the reporting requirements for local, state and federal agencies. This course is required for the associate of applied science degree and the vocational certificate in business. 2 hrs./wk.

ENTR 180
Opportunity Analysis (2 CR)
Upon successful completion of this course, the student should be able to assess the current economic, social and political climate for small businesses. In addition, the student should be able to explain how demographic, technological and social changes create opportunities for small business ventures. This course is required for the associate of applied science degree in business entrepreneurship. 2 hrs./wk.
ENTR 190
Small Business Analysis (2 CR)
Prerequisite: BUSE 131 or ENTR 131 and BUSE 160 or ENTR 160 and BUS 230 or assistant dean's approval

Upon successful completion of this capstone course, the student should be able to identify problems that frequently arise in small business and use problem-solving skills to formulate solutions. In addition, the student should be able to apply the knowledge of business concepts and techniques in the analysis of cases and actual business situations. This course is required for an associate of applied science degree and a vocational certificate in business entrepreneurship. 2 hrs./wk.

ENTR 195
Franchising (3 CR)
Prerequisite: BUS 230

In this course, the student should be able to research the franchising method of doing business from the perspective of both the franchisor and the franchisee. The student will analyze independent management efforts necessary for a successful franchise business venture as well as understand the interdependent contractual obligations that are legally binding between the franchisor-franchisee. 3 hrs. lecture/wk.

ENTR 210
Entrepreneurship Internship I (1 CR)
Prerequisite: Career program facilitator or assistant dean approval

Upon the successful completion of this course, the student should be able to apply classroom knowledge to an actual work situation. This course consists of supervised work experience in an approved training situation. A minimum of 240 hours of on-the-job training is required. This course is required for an associate of science degree in business entrepreneurship. Either ENTR 210 or BUSE 210, Entrepreneurship Internship I, or ENTR 215 or BUSE 215, Entrepreneurship Internship II, is required for a vocational certificate in business entrepreneurship.

ENTR 215
Entrepreneurship Internship II (1 CR)
Prerequisite: ENTR 210 and Assistant Dean's Approval

Upon the successful completion of this course, the student should be able to apply classroom knowledge to an actual work situation. A minimum of 240 hours of on-the-job training is required. This course is required for an associate of applied science degree in business entrepreneurship. Either BUSE 210 or ENTR 210, Entrepreneurship Internship I, or BUSE 215 or ENTR 215, Entrepreneurship Internship II is required for a vocational certificate in business entrepreneurship.

ENTR 220
Entrepreneurial Marketing (2 CR)
Prerequisite: BUS 230

In this course, the student will gain insights essential for marketing an entrepreneurial venture utilizing innovative and financially responsible marketing strategies. The student will analyze marketing philosophies implemented by key successful entrepreneurs. Additionally, the student will prepare a marketing plan to launch the entrepreneurial venture and a marketing plan to implement during the first two years of business operation. 2 hrs. lecture/wk.

ENTR 225
Family Business (3 CR)
Upon successful completion of this course, the student will gain the knowledge and skills needed for the successful management and leadership of a family enterprise by exploring a diverse set of family firms, examining the interrelationships among the owners, the family, and the management team. The student will analyze the management and family practices that ensure success while recognizing the advantages and challenges facing family enterprises. Emphasis is placed on positioning the family enterprise for sustained growth and continuity through generations. 3 hrs. lecture/wk.

ENTR 240
Funding Acquisition for Entrepreneurs (2 CR)
Prerequisite: ENTR 142
Upon successful completion of this course, the student will understand the importance and impact of funding sources for their entrepreneurial venture. This will be accomplished by reviewing the impact of venture capital in every phase of the business venture from idea to exit including planning, teambuilding, protecting intellectual capital, identifying funding sources, raising money, writing funding agreements, and managing through to an IPO or merger and acquisition. Additionally, the student will develop and present a funding proposal. 2 hrs. lecture/wk.

FASH 121
Fashion Fundamentals (3 CR)
Upon successful completion of this course, the student should be able to define appropriate fashion terminology and explain the structure of the industry, including the design process and marketing of the fashion product. 3 hrs./wk.

FASH 123
Apparel Construction I (4 CR)
Upon successful completion of this course, the student should be able to apply clothing construction principles, techniques and skills in apparel construction. The class will use lecture, demonstration and hands-on experience to teach the skills needed to plan and construct four garments during this class. 2 hrs. lecture, 4 hrs. lab/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $100 to 300.

FASH 124
Apparel Construction II (4 CR)
Prerequisite: FASH 123 or two years of high school apparel construction training or division administrator approval
Upon successful completion of this course, the student should be able to apply intermediate apparel construction principles, techniques and skills in the production of various garments. This continuation of FASH 123 will focus on the planning and construction of an ensemble of intermediate complexity made from muslin fitting samples, with emphasis on precise fitting alteration. This course is a suggested elective for the Fashion Merchandising program. 2 hrs. lecture, 4 hrs. lab/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $100 to 300.
FASH 125
Visual Merchandising (3 CR)
Upon successful completion of this course, the student should be able to explain and apply the principles of design in visual merchandising. In addition, the student should be able to identify and explain the use of mannequins and other forms, display fixtures and lighting systems; apply color theory; and present merchandise effectively in visual displays. The student should also be able to demonstrate the use of appropriate types of displays for in-store promotions. This course is required for the Fashion Merchandising program. 3 hrs./wk.

FASH 127
CAD: Pattern Design I (4 CR)
Prerequisite: FASH 123
Upon successful completion of this course, the student should be able to apply the use of flat pattern methods in developing patterns for original apparel designs. Basic slopers and the CAD (computer-assisted design) Pattern Design System will be used to develop and manipulate patterns. The class will use lecture, demonstration and hands-on experience to teach skills needed in manual and computer-assisted pattern design. The student will plan and create patterns in this class. 2 hrs. lecture, 4 hrs. lab/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $80.

FASH 128
CAD: Pattern Design II (4 CR)
Prerequisite: FASH 127
Upon successful completion of this course, the student should be able to apply advanced methods of flat pattern design in developing patterns. This class is a continuation of FASH 127, CAD: Pattern Design I. Lecture, demonstration and hands-on experience will be used to teach techniques needed in computer-assisted and manual advanced pattern design. Industry standards will be used for sloper manipulation. Each student will create advanced flat patterns in this class. This is a suggested elective for the Fashion Merchandising program. 2 hrs. lecture, 4 hrs. lab/wk.

FASH 130
Fashion Illustration I (3 CR)
Upon completion of this course, students should be able to create fashion illustrations for their portfolios. In addition, the student should be able to apply color, mood, detail and form using various media. 3 hrs./wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 50.

FASH 132
Marketing Communications (3 CR)
Upon successful completion of this course, the student should be able to explain advertising and promotion from an integrated marketing communications perspective that combines theory with planning, management and strategy. In addition, the student will be able to explain advertising, sales promotion, direct marketing and publicity/public relations and the need for integration of these promotional mix elements in an overall marketing communications program. 3 hrs./wk. This course is typically taught in the fall semester.

FASH 135
Image Management (1 CR)
Upon successful completion of this course, the student should be able to conduct an extensive wardrobe inventory. In addition, the student should be able to apply
principles of personal grooming, elements of design and fabric, and accessory knowledge to the development of an individual professional wardrobe plan based on individual budget constraints. 1 hr./wk.

FASH 140
Garment Design I (3 CR)
Prerequisite: FASH 123
Upon successful completion of this course, students should be able to produce a first pattern and prepare it for production. This includes translating garment ideas from color sketches (croquis); continuing the design process through fabric selection and pattern drafting; figuring yardage, notions and wholesale cost; and constructing a finished garment. 6 hrs. lecture, lab/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $100 to 300.

FASH 143
Tailoring (4 CR)
Prerequisite: FASH 124
Upon successful completion of this course, the student should be able to apply advanced construction principles, techniques and skills in the production of tailored garments. This course is a continuation of FASH 124, Apparel Construction II. The class will use lecture, demonstration and hands-on experience as the student completes a trial muslin for a jacket or coat plus a finished three-piece ensemble of advanced complexity during this class. 2 hrs. lecture, 4 hrs. lab/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $100 to 300.

FASH 150
Textiles (3 CR)
Upon successful completion of this course, the student should be able to differentiate fibers and fabrics according to their specific characteristics and to select fibers and fabrics for specific applications. In addition, the student should be able to identify properties and characteristics of natural and man-made fibers, the properties and characteristics of yarns, fabric construction methods including weaving and knitting and various finishing processes including printing and dyeing. 3 hrs./wk.

FASH 220
CAD Apparel Design (3 CR)
Upon successful completion of this course, the student should be able to apply the elements and principles of design in evaluating and designing women's, men's and children's apparel. A project of designing a line will apply the student's aesthetic knowledge, the relationship of apparel design to the current socioeconomic conditions and apparel production knowledge. Projects use computer-aided design software. 3 hrs./wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $25 to 30.

FASH 224
History of Costume (3 CR)
Upon successful completion of this course, the student should be able to identify the political, economic, technological and sociological factors that have influenced Western costume worn by women, men and children from ancient Egyptian times to the present. 3 hrs./wk.
FASH 225  
Store Planning (3 CR)  
*Prerequisite: FASH 125*  
Upon successful completion of this course, the student should be able to demonstrate the skills needed to plan and execute the display methods and store planning concepts for promoting merchandise within a large or small store interior. These plans will use the student’s understanding of design, fixtures, traffic patterns, floor sets, graphics/signage and materials. This course is a requirement for the visual merchandising certificate. 3 hrs. lecture/wk. This course is typically taught in the spring semester.

FASH 230  
Fashion Illustration II (3 CR)  
*Prerequisite: FASH 130*  
Upon successful completion of this course, the student should be able to produce refined fashion illustrations to enhance the portfolio. Fashion Illustration II is a continuation of Fashion Illustration I. Greater emphasis is placed on development of a personal illustration style and presentation of a professionally executed portfolio. 3 hrs./wk.  
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 50.

FASH 231  
Merchandising Planning and Control (3 CR)  
*Prerequisite: MATH 120*  
Upon successful completion of this course, the student should be able to describe the management structure of retail merchandising operations, contrast merchandising functions among various types of retail operations, explain the buying process, explain the financial operations of retail merchandising and apply these principles in computer-simulated case situations. 3 hrs./wk. This course is typically taught in the spring semester.

FASH 242  
Consumer Product Evaluation (3 CR)  
Upon successful completion of this course, the student should be able to evaluate a wide range of textile and nontextile products, from lingerie to china, on the basis of specialized product knowledge. In addition, the student should be able to prepare research projects on selected products. 3 hrs./wk. This course is typically taught in the spring semester.

FASH 268  
Field Study: The Market Center (3 CR)  
*Prerequisite: FASH 121*  
Upon successful completion of this course, the student should be able to identify and distinguish between national, regional and local retail market centers. In addition, the student should be able to explain the importance of market centers, analyze the marketing mix of selected retailers and describe uses of fashion auxiliary services. This is a suggested course for the Fashion Merchandising program. 3 hrs./wk. This course is typically taught in the spring semester.  
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $900.

FASH 277  
Fashion Seminar: Career Options (2 CR)  
Upon successful completion of this course, the student should be able to define individual career goals after a thorough examination of five career areas within the...
fashion industry. In addition, the student should be able to explain strategies for success in the workplace. 2 hrs./wk.

FASH 279
Fashion Portfolio Development (2 CR)
Prerequisite: FASH 121 and FASH 124 and FASH 127 and FASH 130 and FASH 150 and FASH 220 Prerequisite or corequisite: FASH 280 and FASH 140

Students will compile, select and create new material for their portfolio as well as evaluate their own competencies and strengths. In addition, students will create a resume and perform a mock interview to be reviewed by faculty and peers. 2 hrs. lecture/wk. This course is typically taught in the spring semester.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $25 to 80.

FASH 280
Capstone: Industry Topics (3 CR)
Prerequisites: FASH 283 and FASH 284 Corequisite: FASH 231

Upon successful completion of this course, the student should be able to exhibit knowledge and work-based skill inherent to fashion retailing, wholesaling and manufacturing. The student will have opportunities to apply knowledge gained in prior courses analyzing industry topics. This capstone course will review and evaluate competencies that are essential for employment in the fashion industry. This course is required for the Fashion Merchandising program. 3 hrs. lecture/wk. This course is typically taught in the spring semester.

FASH 283
Fashion Internship I (1 CR)

Upon successful completion of this course, the student should be able to apply classroom knowledge to an actual work situation. This course offers work experience under instructional supervision in an approved training situation designed to provide practical experience in the fashion industry. A minimum of 15 hours on-the-job training/wk.

FASH 284
Fashion Internship II (1 CR)

Upon successful completion of this course, the student should be able to apply classroom knowledge to an actual work situation. The student will receive 225 hours of work experience in an approved training situation designed to provide practical experience in the fashion industry. An average of 15 hours on-the-job training/wk.

FASH 285
Fashion Internship III (1 CR)

Upon successful completion of this course, the student should be able to demonstrate the skills required to advance to an entry-level management position. The student will receive 225 hours of work experience in an approved training situation designed to provide practical experience in the fashion industry. An average of 15 hours on-the-job training is required/wk.

FASH 286
Fashion Internship IV (1 CR)
Prerequisites: FASH 283 and FASH 284 and FASH 285 and 45 hours toward degree in Fashion Merchandising
Upon successful completion of this course, the student will have received 225 hours of work experience in an approved training environment. The student should be able to demonstrate the skills required in an entry level management position. An average of 15 hours on the job training/wk. is required.

FASH 298
European Fashion Emphasis (3 CR)
Upon successful completion of this course, the student will be able to compare American and European retail merchandising, advertising and visual presentation. This travel-for-credit course includes visits to selected European cities.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $3000.

Fire Services Administration (FIRE)

FIRE 110
Essentials of Fire Fighting (9 CR)
Prerequisite or corequisite: HPER 240 and Program Facilitator Approval
This course provides cognitive, psychomotor and affective instruction for those students seeking certification as a fire fighter in the state of Kansas. The class covers hazardous materials (first responder; operations level), fire department communications, fire ground operations, rescue operations and prevention, preparedness and maintenance. Upon successful completion of the cognitive examinations and all psychomotor skills evaluations, students will be allowed to sit for the Kansas Fire Fighter II state certification examination, which is administered by the University of Kansas, Fire and Rescue Training Institute. 5 hrs. lecture 7 hrs. lab/wk. This course is typically taught in the fall and spring semesters only.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $200.

FIRE 130
Fire Investigation (1 CR)
Prerequisite: FIRE 110 or FIRE 175
This course provides instruction in basic fire investigation. Students will learn basic cause and origin determination, scene and evidence security techniques, and report-writing skills. This course meets the job performance requirements pertaining to fire investigation identified in NFPA 1021, Fire Office Professional Qualifications. 1 hr./wk. This course is typically taught in the spring semester only.

FIRE 135
Building and Fire Codes (3 CR)
Prerequisite: FIRE 110 or FIRE 175
This course entails application and interpretation of codes and ordinances, especially the Life Safety Codes used extensively in fire prevention. 3 hrs./wk. This course is typically taught in the spring semester only.

FIRE 162
Fire Tactics and Strategy (3 CR)
Prerequisite: FIRE 110 or FIRE 175
Fire control through manpower, equipment and extinguishing agents will be explored, including theoretical models and practical applications. 3 hrs./wk. This course is typically taught in the fall semester only.
FIRE 220
Fire Administration (3 CR)
Prerequisite: FIRE 110 or FIRE 175
Techniques and methods used in managing fire departments are explored, including budgeting processes, administrative functions and types of political systems that affect a fire department. 3 hrs./wk. This course is typically taught in the fall semester only.

FIRE 222
Fire Science Law (3 CR)
Prerequisite: FIRE 110 or FIRE 175
The law as it pertains to the fire service will be explained, along with tort law and business law. 3 hrs./wk. This course is typically taught in the fall semester only.

FIRE 224
Incident Command Systems (3 CR)
Prerequisite: FIRE 110 or FIRE 175
This is a course in basic incident command. Disaster control, disaster management, communications for disaster management and types of disasters are presented. 3 hrs./wk. This course is typically taught in the spring semester only.

FIRE 250
Fire Service Science Instructional Methodology (3 CR)
Prerequisite: FIRE 110 or FIRE 175
This course is designed to provide the instructional skills and knowledge necessary to develop, conduct and evaluate formal training programs in in-service and classroom formats. This course meets NFPA 1041 standards for fire service instruction. This course is typically taught in the spring semester only.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $100.

Foreign Language (FL)

FL 116
Elementary Latin I (3 CR)
Students will have the opportunity to learn the basic vocabulary and structural patterns, or grammar, of Latin. Emphasis will be on fundamental grammar concepts, extensive word study for English vocabulary growth and the lasting contributions Roman society made to Western civilization. 3 hrs./wk. This course is not offered in the spring semester.

FL 117
Elementary Latin II (3 CR)
Prerequisite: FL 116 or one year of high school Latin
This course will complete the presentation of basic Latin vocabulary and grammar. Fundamental grammar concepts, extensive word study for English vocabulary growth and the lasting contributions of Roman society to Western civilization will be emphasized. 3 hrs./wk. This course is taught in the spring semester.
FL 120  
**Elementary German I (5 CR)**  
This course presents the sounds, vocabulary and basic structural patterns of German, focusing on the development of listening comprehension, speaking, reading and writing skills. Cultural material will be integrated into the course. 5 hrs./wk.

FL 121  
**Elementary German II (5 CR)**  
*Prerequisite: FL 120 or one year of high school German*  
This course will continue the presentation of the vocabulary and basic structural patterns begun in Elementary German I with continued emphasis on the development of listening comprehension, speaking, reading and writing skills. 5 hrs./wk.

FL 130  
**Elementary Spanish I (5 CR)**  
In this basic course, students will study Spanish grammar conversation, composition and the culture of Spanish- speaking countries. 5 hrs./wk.

FL 131  
**Elementary Spanish II (5 CR)**  
*Prerequisite: FL 130 or one year of high school Spanish*  
This course will continue the presentation of the material introduced in Elementary Spanish I. Graded reading selections will be added as a basis for conversation and composition in discussion periods. 5 hrs./wk.

FL 133  
**Basic Spanish for Hospitality Management (2 CR)**  
In this basic course, students will be introduced to terminology related to the hospitality industry, basic Spanish grammar and phrases related to work. 2 hrs./wk.  
**Associated Costs:** In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 40.

FL 140  
**Elementary French I (5 CR)**  
Areas covered in this basic course include vocabulary building, grammar study, conversation and an introduction to French culture and civilization. The emphasis is on conversation. 5 hrs./wk.

FL 141  
**Elementary French II (5 CR)**  
*Prerequisite: FL 140 or one year of high school French*  
This course continues the presentation of the material introduced in Elementary French I. Graded reading selections will be used as the basis for conversation. 5 hrs./wk.

FL 145  
**Field Study in Russian Language & Culture (2 CR)**
This field study course is open to students with any level of Russian language proficiency – from beginning to advanced. The course combines orientation sessions in Russian language and culture at JCCC with two weeks of study in Russia. During their stay in Russia, students will attend a Russian university, take classes in Russian language and culture and participate in excursions to sites of historical and cultural significance. Students will be placed in Russian language classes that are commensurate with their proficiency level in the Russian language. 10 hrs. lecture & 80 hrs. field study in Russia. FEES: Students are responsible for all expenses incurred during this field study, including costs for travel documents, insurance and all travel expenses. Students should contact instructor for cost estimate.

**FL 150**  
**Elementary Russian I** (5 CR)  
In this course, students will learn the basic sounds, vocabulary and structural patterns of Russian. Emphasis will be on listening comprehension, speaking, reading and writing skills. Cultural material will be included. 5 hrs./wk.

**FL 151**  
**Elementary Russian II** (5 CR)  
*Prerequisite: FL 150 or one year of high school Russian*  
This course completes the presentation begun in Elementary Russian I. Students will gain listening comprehension, speaking, reading and writing skills appropriate to a second-level course. 5 hrs./wk.

**FL 160**  
**Elementary Italian I** (5 CR)  
Students will be introduced to the sounds, vocabulary and basic structural patterns of Italian, with primary focus on the development of listening comprehension, speaking, reading and writing skills. Integrated throughout the course will be an introduction to the culture of Italy. 5 hrs./wk.  
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $8 to 20.

**FL 161**  
**Elementary Italian II** (5 CR)  
*Prerequisite: FL 160 or one year of high school Italian*  
A continuation of the presentation of the vocabulary and basic structural patterns of Italian, this course will emphasize the development of listening comprehension, speaking, reading and writing skills. Cultural material also will be integrated into the course. 5 hrs./wk.  
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $8 to 20.

**FL 165**  
**Elementary Chinese I** (5 CR)  
This course will introduce students to the basic sounds, vocabulary, grammar and usage, characters and reading of the Chinese language. The emphasis will be on developing basic conversational skills. Students will develop an understanding and appreciation of Chinese culture. 5 hrs./wk.

**FL 166**  
**Elementary Chinese II** (5 CR)  
*Prerequisite: FL 165 or equivalent college-level course with a grade of "D" or better or one year of high school Chinese with a grade of "D" or better*
This course offers a continuation of Elementary Chinese I, emphasizing the sounds, vocabulary, grammar, usage, characters and reading of the Chinese language. Students will develop more advanced conversational skills and cultural understanding. 5 hrs./wk.

**FL 170**  
**Elementary Japanese I** (5 CR)  
This course is an introduction to the sounds, vocabulary, grammar, usage and readings of the Japanese language. The emphasis will be on developing basic conversational skills. Cultural materials will be included. This course is typically taught in the fall semester. 5 hrs./wk.

**FL 171**  
**Elementary Japanese II** (5 CR)  
*Prerequisite: FL 170 or one year of high school Japanese*  
A continuation of Elementary Japanese I, this course will emphasize the sounds, vocabulary, grammar, usage and reading of the Japanese language. The emphasis is on developing more advanced conversational skills and cultural understanding. This course is typically taught in the spring semester. 5 hrs./wk.

**FL 175**  
**Elementary Brazilian Portuguese I** (5 CR)  
In this basic course, students will study Portuguese grammar, conversation, composition and the culture of Brazil. 5 hrs./wk.

**FL 176**  
**Elementary Brazilian Portuguese II** (5 CR)  
*Prerequisite: FL 175*  
This course will continue the presentation of the material introduced in Elementary Brazilian Portuguese I. Graded reading selections are added as a basis for conversation and composition in discussion periods. 5 hrs. lecture/wk.

**FL 178**  
**Intermediate Russian I** (3 CR)  
*Prerequisite: FL 151 or two years of high school Russian*  
This course will emphasize vocabulary development and more advanced study of Russian grammar. Students will practice reading, listening comprehension, speaking and writing at the intermediate level. 3 hrs./wk.

**FL 179**  
**Intermediate Russian II** (3 CR)  
*Prerequisite: FL 178 or three years of high school Russian*  
Students will study Russian language and culture that would prepare them to travel in a Russian-speaking country and engage in simple conversation with the citizens. 3 hrs./wk.

**FL 180**  
**Elementary American Sign Language I** (3 CR)  
This class will focus on the development of beginning American Sign Language
FL 181
Elementary American Sign Language II (3 CR)
Prerequisite: FL 180 or INTR 120
This course will focus on continued development of elementary American Sign Language skills beyond those taught in Elementary ASL I. Students will work on developing communication competencies, concentrating on comprehension and production skills. Information about the linguistic and cultural features will be included in the context of language learning experiences. 6 hrs. integrated lecture-lab/wk. FL 181 and INTR 121 are the same course. Do not enroll in both.

FL 190
Intermediate Japanese I (3 CR)
Prerequisite: FL 171 or two years of high school Japanese
This course is a continuation of the study of Japanese language and culture, emphasizing the sounds, vocabulary, grammar, usage and readings of the Japanese language. Emphasis will be on developing further advanced conversational skills by increasing vocabulary and variety of sentence patterns. Cultural understanding will also be stressed. This course is typically taught in the fall semester. 3 hrs/wk.

FL 191
Intermediate Japanese II (3 CR)
Prerequisite: FL 190 or three years of high school Japanese
This course is a continuation of the study of Japanese language and culture, emphasizing the sounds, vocabulary, grammar, usage and readings of the Japanese language. Emphasis will be on developing further advanced conversational skills by increasing vocabulary and variety of sentence patterns. Cultural understanding will also be stressed. This course is typically taught in the spring semester. 3 hrs. lecture/wk.

FL 192
Intermediate Chinese I (3 CR)
Prerequisite: FL 166 or equivalent
This course is a continuation of study of the Chinese language and culture, emphasizing the sounds, vocabulary, grammar, usage and readings of the Chinese language. Focus will be on developing more advanced conversational skills by increasing vocabulary and variety of sentence patterns. Cultural understanding will also be stressed. 3 hrs./wk.

FL 193
Intermediate Chinese II (3 CR)
Prerequisites: FL 192 or equivalent
This course is a continuation of study of the intermediate Chinese language and culture, emphasizing the sounds, vocabulary, grammar, usage and readings of the Chinese language. Focus will be on developing more advanced conversational skills by increasing vocabulary and variety of sentence patterns. Cultural understanding will also be stressed. 3 hrs. lecture/wk.
FL 205
Conversational Japanese (2 CR)
*Prerequisite: FL 171 or two years of high school Japanese*
This course is designed to enhance the ability of students to express themselves orally in Japanese through vocabulary building and reiteration of essential grammatical structures. The vocabulary will stress everyday situations and current events. 2 hrs. lecture/wk.

FL 220
Intermediate German I (3 CR)
*Prerequisite: FL 121 or two years of high school German*
This class will emphasize vocabulary building and grammar review primarily through extensive reading of German texts. There will be additional practice in listening comprehension, speaking and writing. 3 hrs./wk.

FL 221
Intermediate German II (3 CR)
*Prerequisite: FL 220 or three years of high school German*
This class will further expand the mastery of German vocabulary and structure through extensive reading of more advanced texts with additional practice in listening comprehension, speaking and writing. 3 hrs./wk.

FL 223
Conversational German (2 CR)
*Prerequisite: FL 121 or two years of high school German*
By applying vocabulary and structures presented in the text and handouts and by applying knowledge gained in a systematic review of German, the successful student will be able to communicate in German in situations that typically arise while traveling in a German-speaking country. 2 hrs./wk.

FL 230
Intermediate Spanish I (3 CR)
*Prerequisite: FL 131 or two years of high school Spanish*
This is a reading course designed to build vocabulary, increase understanding of Hispanic culture and increase speaking fluency. The course will include composition and conversation. 3 hrs./wk.

FL 231
Intermediate Spanish II (3 CR)
*Prerequisite: FL 230 or three years of high school Spanish*
Extensive study of Hispanic literature will be included in this class, along with advanced reading and grammar review. 3 hrs./wk.

FL 234
Conversational Spanish (2 CR)
*Prerequisite: FL 131 or two years of high school Spanish*
This course is designed to enhance students' ability to express themselves orally in Spanish through vocabulary building and reiteration of essential grammatical structures. The vocabulary will stress everyday life situations and current events. 2 hrs./wk.
FL 240
Intermediate French I (3 CR)
Prerequisite: FL 141 or two years of high school French
In this course, students begin a more in-depth study of French grammar and vocabulary as they improve their mastery of the four communicative skills (listening, speaking, reading and writing). Reading assignments (from literary, journalistic and Internet sources) will be more advanced and writing assignments will be more extensive at the Intermediate level. 3 hrs./wk.

FL 241
Intermediate French II (3 CR)
Prerequisite: FL 240 or three years of high school French
In this class, students continue their in-depth study of French grammar and improvement of vocabulary. All four communication skills (listening, speaking, reading, and writing) continue to be emphasized as reading assignments, compositions, listening comprehension exercises and class discussion become more complex. 3 hrs./wk.

FL 243
Conversational French (2 CR)
Prerequisite: FL 141 or two years of high school French
This course is designed to build spontaneous speaking ability. Everyday situations and current events will be discussed in class. 2 hrs./wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $1 to 3.

FL 246
Conversational Russian (2 CR)
Prerequisite: FL 151 or two years of high school Russian
This course is designed to enhance students' ability to express themselves orally in Russian through vocabulary building and reiteration of essential grammatical structures. The vocabulary will stress everyday situations and current events. 2 hrs./wk.

FL 270
Intermediate American Sign Language I (3 CR)
Prerequisite: FL 181 or INTR 121
This course will focus on the development of intermediate American Sign Language communication skills. Emphasis will be on teaching in context comprehension skills and linguistic features of the language. 6 hrs. lecture-lab/wk. FL 270 and INTR 122 are the same course; do not enroll in both.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 40.

FL 271
Intermediate American Sign Language II (3 CR)
Prerequisite: FL 270 or INTR 122
The study of intermediate American Sign Language will continue in this course. It is designed to further intermediate communication skills in American Sign Language. Information about the linguistic and cultural features will be included in the context of language learning experiences. 6 hrs. lecture/wk. FL 271 and INTR 123 are the same course; do not enroll in both.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 40.
FL 298
French Culture and Civilization (3 CR)
In this travel-for-credit course, students will visit selected sites in France, where they will compare the French and U.S. languages, values, culture and institutions. Summer.

Game Development (GAME)

GAME 101
Computer Game Creation (4 CR)
This course is designed to present the skills and to provide the hands-on experience required to create computer games utilizing game development tools that require no programming. Typical game creation topics to be covered include 2D graphics, 3D modeling, music and sound effects. Typical tasks will include setting up a game development studio, manipulating graphic images, obtaining or creating sounds and music, installing and using various game development tools and working with pictures and animation. 3 hrs. lecture, 1.5 hrs. lab/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $20 to 50.

GAME 102
The Business of Games (3 CR)
In this course, students are introduced to the business and process of game development, from the concept document to publishing. Students will learn the stages of game development within the context of the often complex relationship between developer, publisher and retailer. The course uses a participatory format emphasizing analytical thinking and problem solving, both key skills for persons seeking a career in the game development industry. 3 hrs lecture/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $20 to 50.

GAME 110
Flash Gaming (4 CR)
This course is designed to present the skills and to provide the hands-on experience required to create computer games utilizing Flash MX 2004. Typical topics to be covered include 2D coordinate systems, basic game physics, game trigonometry, motion techniques, collision detection, collision reaction, conservation of momentum and energy, and tile based worlds. Typical tasks include creation of angle conversion functions; projection functions; controlling speed, velocity, and acceleration; applying Newton’s three laws of motion, affecting gravity and friction; and creation of grid management systems. 3 hrs. lecture and 1.5 hrs. lab/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $20 to 50.

GAME 140
Game Programming I - 2D (4 CR)
Prerequisite: CS 200
This course is designed to present skills and provide hands-on experience required to create two-dimensional games utilizing C++. Typical game topics will include programming in a GUI (graphical user interface) environment, game libraries, sound, music and working with graphics. Typical tasks will include setting up the environment, creating several games, using music and sound in a game, and exercises that will highlight important game programming concepts. 3 hrs. lecture, 1.5 hrs. lab/wk.

GAME 150
Game Programming II - 2D (4 CR)
Prerequisite: GAME 140 and either CIS 235 or CS 250
This course is designed to present the skills and provide the hands-on experience required to create more complex two-dimensional games utilizing C++ and the Windows environment. Typical game topics will include algorithms, multithreading, artificial intelligence (AI) and physics modeling. Typical tasks will include creating several games, using advanced data structures and AI and exercises that will highlight important game programming concepts. 3 hrs. lecture, 1.5 hrs. lab/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $20 to 50.

GAME 180
Artificial Intelligence for Games (3 CR)
Prerequisite: CS 200
Upon successful completion of this course, students should be able to deconstruct simple computer programs illustrating introductory concepts in artificial intelligence as applied to computer games. They will define terms and application areas in the field, and describe game representation and implementation techniques used in artificial intelligence for games. 3 hrs lecture/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $20 to 50.

GAME 200
Game Design (3 CR)
Students will refer to the history of video games to describe the progression of development up to the modern forms of games available today. Students will critically analyze video games and identify and understand the thematic, visual, systematic, and geographical elements that contribute to making a fun user experience. Abstract systems will be introduced at the beginning of the course, and students will be invited to give their own examples. Models will be shown early as references for students when investigating specific video game structures later in the course. Students will develop a common lattice of "game design patterns" creating a common vocabulary and database. Creative habits and professional attitudes will be discussed. 3 hrs. lecture/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $20 to 50.

GAME 230
Game Programming III - 3D (4 CR)
Prerequisite or corequisite: GAME 150
This course will provide an opportunity for students to obtain the knowledge and skills necessary to create 3D multiplayer games. Topics include 3D models of players, vehicles, items, and structures; audio and music; graphical user interfaces and menus; UV wrapped textures and skins; environmental effects; and outdoor terrain. 3 hrs. lecture, 2 hrs. lab/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $20 to 50.

GAME 250
Game Programming IV - Capstone (4 CR)
Prerequisite: GAME 200 and GAME 150 and GAME 230 and CIM 145 and ENGL 150 and Prerequisite or corequisite: GAME 180
This course is designed for students to apply the foundations of game design and game programming to a significant original game. Students should work within a team to analyze a problem, develop and present a proposed game design document, build a demonstrable prototype of the game and develop a significant portion of the finished product. Students should also develop a project schedule and present progress information to the class. Students should also develop job search skills and both written and oral communication skills. 3 hrs. lecture, 2 hrs. lab by arrangement/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this
course has additional expense considerations that are estimated to be $20 to 50.

GAME 255
Mobile Game Programming (4 CR)
Prerequisite: GAME 150 and GAME 200
This course is designed for students who want to learn mobile device game programming. The students will learn the various limitations on mobile devices and the options available for programming them. They will create a 2D game for mobile devices. 3 hrs lecture, 2 hrs lab per week.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $20 to 50.

Geographic Information Systems (KEOG)

KEOG 120
Introduction to Geographic Information Systems (3 CR)
Fundamental concepts of geographic information systems (GIS), elements of GIS, analysis of spatial information, real-world applications, map creation and analysis. Primary objective is to investigate interactive GIS applications rather than develop expert users. Course taught at MCC-Longview Community College, 500 SW Longview Road, Lee's Summit, Missouri 64081, 816-672-2549, and MCC-Maple Woods Community College, 2601 NE Barry Road, Kansas City, Missouri 64156, 816-437-3355.

KEOG 220
GIS Database and Design (3 CR)
Concepts of Geo-database design and management in geographic information systems (GIS), SQL statements, geographic data types and functions, data entry, techniques of geographic information structure and indexing, querying techniques, searches, and spatial analysis, creation and use of metadata real-world applications. Course taught at MCC-Longview Community College, 500 SW Longview Road, Lee's Summit, Missouri 64081, 816-672-2549, and MCC-Maple Woods Community College, 2601 NE Barry Road, Kansas City, Missouri 64156, 816-437-3355.

KEOG 224
Applications in Geographic Information Systems (3 CR)
Data collection, incorporation of local and global data, and analysis of spatial information that can be used to investigate major application areas, national GIS policy. This course is taught at MCC-Longview Community College, 500 SW Longview Road, Lee's Summit, Missouri 64081, 816-627-2549, and MCC-Maple Woods Community College, 2601 NE Barry Road, Kansas City, Missouri 64156, 816-437-3355.

KEOG 228
Administrative Issues in GIS (1 CR)
Prerequisite: KEOG 120
Addresses issues unique to GIS operation such as implementation issues, decision making procedures, strategies for success, legal issues, involvement of management, NCGIA Guidelines, marking within an organization, strategic planning and industry outlook. 3 hrs. lecture/wk. 1-3 credit hour course. A three credit hour internship is required for a student with no GIS experience and 1 hour for someone already employed in the GIS field. This course is taught at MCC-Longview Community College, 500 SW Longview Road, Lee’s Summit, Missouri 64081, 816-672-2549, and MCC-Maple Woods Community College, 2601 NE Barry Road, Kansas City, Missouri 64156, 816-437-3355.

KEOG 230
Geographic Information Systems Internship A-C (1 CR)
Prerequisites: KEOG 120 and KEOG 220
Internship in a Geographic Information System facility. Experience real-workplace requirements, complete assigned tasks by hosting facility such as GIS data entry, data retrieval, GPS field work, documentation, or general GIS facility duties. Arranged meetings with instructor includes work ethics, expectations, challenges, evaluation. 225-675 hours. This course is taught at MCC-Longview Community College, 500 SW Longview Road, Lee's Summit, Missouri 64018, 816-672-2549, and MCC-Maple Woods Community College, 2601 NE Barry Road, Kansas City, Missouri 64156, 816-437-3355.

Geoscience (GEOS)

GEOS 130
General Geology (5 CR)
In this introductory course the students will survey the geologic processes that form and shape the earth over geologic time using the models of the rock cycle, the hydrologic cycle and the tectonic cycle. In the laboratory they will conduct hands-on activities designed to enhance and reinforce the geologic concepts they have studied. 4 hrs. lecture, 3 hrs. lab/wk.

GEOS 140
Physical Geography (3 CR)
This course is a survey of the physical and environmental topics of geography, including the methods used to study them. The Earth as a system and the subsystems of the atmosphere, hydrosphere, lithosphere and biosphere constitute the major units of study. Students will acquire basic terminology that they will use to explain the earth, the atmosphere, the landscape, and the processes that occur on earth to change the landscape. Topics may include mapping with topographic maps and remote sensing; development and structure of the atmosphere; weather; water resources; climate; rock formation; mountain building; chemical and physical weathering; mass movement; soil formation; erosion, transportation and deposition by running water, wind, ice, currents, waves and tides; and the foundation that these processes build for the biosphere on earth. 3 hrs./wk.

GEOS 141
Physical Geography Lab (2 CR)
Prerequisite or Corequisite: GEOS 140 or the equivalent
Students in this course will practice their knowledge of physical geography through the collection and analysis of atmospheric data and the identification and interpretation of landforms and biological patterns as depicted on topographic maps and remotely sensed imagery. 4 hrs. lab/wk.

GEOS 145
World Regional Geography (3 CR)
In this introductory course, the student will first review the basic theories of the discipline of geography, the relationship of world population and resources and the factors affecting development. Next, the student will survey the major regions of the world to identify each region’s distinguishing geographic characteristics, summarize its past development and explain the key issues affecting the region’s future development. 3 hrs. lecture/wk.

Graphic Design (GDES)
GDES 120
Introduction to Graphic Design (3 CR)
This course is designed to acquaint the student with the various aspects of the graphic design field. Topics include the ways in which visual messages are used in society, the skills needed by a graphic designer and the potential areas of specialization and employment. This class will have guest speakers from the field of graphic design. Emphasis will be on assisting the student to make an informed decision about graphic design as a career. 3 hrs. lecture/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $40 to 50.

GDES 130
Drawing and Media Methods 1 (3 CR)
Prerequisite: ART 124 and GDES 120 or CD 120
This course will provide instruction in perceptual techniques, perspective theory and drawing process methods that relate to the visual analysis of the three-dimensional forms drawn from life. Focus will be on the application of theory, processes and techniques to attain structural accuracy and the illusion of three-dimensional form on a two-dimensional surface. 6 hrs. lecture and studio/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $200 to 400.

GDES 131
Drawing and Media Methods 2 (3 CR)
Prerequisite: GDES 130 or CD 130
This course is a continuation of Drawing and Media Methods I, with emphasis on the creative application of perspective theory, perceptual skill and drawing methods. Drawing methods and rendering techniques will be applied to visual problem-solving processes and the communication of design concepts. 6 hrs. lecture studio/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $200 to 400.

GDES 132
Typography (3 CR)
Prerequisite: ART 124 and either GDES 120 or CD 120
This course will provide instruction in the basic principles of contemporary typographic design. Information concerning typography, from traditional letterpress through digital type design and typesetting, will be included. The course content will emphasize effective methods of communicating to a mass audience through the printed letter, word, line and page. Working knowledge of QuarkXpress and Adobe InDesign required. 6 hrs. lecture and studio/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $200 to 400.

GDES 134
Layout Design (3 CR)
Prerequisite: GDES 132 or CD 132
This course will provide a basic study of layout elements. Students will acquire the skills necessary to produce layouts. These skills include photographic indication techniques, comp lettering, advertising and editorial grid systems and electronic page design. This course is typically offered in the spring semester only. 6 hrs. lecture and studio/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $200 to 400.
GDES 140
Technical Processes (3 CR)
Prerequisite: PHOT 121
This course covers digital prepress applications, scanning, image manipulation and color output devices. The transition from conventional to digital production will be covered. Proper usage of peripheral equipment will be emphasized. 6 hrs. lecture and studio/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $200 to 400.

GDES 230
Drawing and Media Methods 3 (3 CR)
Prerequisite: GDES 131 or CD 131 and GDES 132 or CD 132 and GDES 134 or CD 134
This course will provide an understanding of the application of illustration to graphic design. Visual problem-solving processes will be further developed through problems in image composition emphasizing expressive communication. Techniques in traditional and digital media are explored. This course is typically taught in the fall semester only. 6 hrs. lecture and studio/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $200 to 400.

GDES 231
Advanced Typography (3 CR)
Prerequisite: GDES 134 or CD 134
This course is a continuation of Layout Design. Emphasis will be on typographic solutions that explore verbal/visual messages. Projects include designs for publication, such as posters, brochures, packaging and graphic campaigns. Typography as a functional and experimental medium will be stressed. Design problem-solving for a diverse range of specifications, including audience, client needs and budget constraints, are included. Traditional and digital tools will be incorporated to produce comprehensives. This course is typically offered in the fall semester only. Working knowledge of Macromedia Dreamweaver is required. 6 hrs. lecture and studio/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $200 to 400.

GDES 235
Production Methods (3 CR)
Prerequisites: GDES 134 or CD 134 and GDES 140 or CD 140
This course will provide the fundamentals of preparing art for reproduction. Traditional camera-ready art techniques and digital prepress production methods will be emphasized. This course is typically offered in the fall semester only. 6 hrs. lecture and studio/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $200 to 400.

GDES 236
Electronic Production (3 CR)
Prerequisites: GDES 230 or CD 230 and GDES 231 or CD 231 and GDES 235 or CD 235 and either PHOT 123 or CIM 135
This course is a continuation of the Production Methods course, providing experience in digital prepress and electronic production techniques. The student will apply production skills to problems of professional scope and complexity, including specialty processes, trapping and color separation. Preparation of graphic files for screen presentation and for the Web will be explored. This course
Communication Systems (3 CR)
Prerequisites: GDES 230 or CD 230, GDES 231 or CD 231, and GDES 235 or CD 235 and either CIM 135 or PHOT 123

This course will explore the scope and potential of graphic design as a vehicle for visual communication in contemporary society. Signs and symbols, as well as communicative power of typographic, hand graphic and photographic modes, will be studied. Traditional and electronic methods will be used to develop projects.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $200 to 400.

Advanced Design Practice (3 CR)
Prerequisites: GDES 230 or CD 230, and GDES 231 or CD 231, and GDES 235 or CD 235, and either CIM 135 or PHOT 123

This course will focus on the use of the student's total design capability and technical knowledge in solving graphic design problems of professional scope and complexity. Students will have the opportunity to work with three art directors and produce three professional projects for potential inclusion in their portfolios. This course is typically offered in the spring semester only. 6 hrs. lecture and studio/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $200 to 400.

Professional Preparation (3 CR)
Prerequisites: GDES 231 or CD 231, and GDES 235 or CD 235, and GDES 230 or CD 230, and PHOT 123 or CIM 135

Prerequisite: The student must have completed all required studio courses in the graphic design program prior to the semester for which he or she is enrolling in this course or be co-enrolled in all fourth-semester studio courses.

This course will provide graphic design majors instruction in the organization and presentation of his or her work in a portfolio format of professional quality. A portfolio, digital portfolio archive, self promo, resume and business ensemble will be produced. Instruction in interviewing techniques and employment searches will also be provided. 6 hrs. lecture and studio/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $200 to 400.

Graphic Design Internship (1 CR)
Prerequisite: Graphic design faculty review committee approval

Students will work in an approved training situation under instructional supervision. The internship is designed to give the student the opportunity to use the skills learned in the graphic design program. Student interns will complete a minimum of 180 hours on the job and will be compensated with at least the minimum hourly wage.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $50 to 100.
HC 101
Introduction to Health Care Delivery (3 CR)
This course is an introduction to the health care delivery system with an overview of health careers and the roles and responsibilities of members of the health care team. Emphasis will be on how to work within a health care team, effective communication skills, professional safety and workplace skills, and legal and ethical rights and responsibilities of patients and health care workers. 3 hrs. lecture/wk.

HC 125
International Awareness Field Study (2 CR)
This is a service-learning course. While partnering with a not-for-profit agency, teams of students will deliver service to a community in a developing country that suffers from extreme poverty. The service provided will vary depending on the identified needs of the community. While serving in the developing country, students will gain an understanding of the culture, language and health status of the people. Students will be exposed to the social, political and economic aspects of life that shape the community. Prior to travel, students are required to attend preparation meetings, fund raise and participate in a local service project. 16 hrs. lecture, 40 hrs. field study
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $0 to 450.

Health Care Interpreting (HCI)

HCI 110
Introduction to Interpreting (3 CR)
Prerequisite: Interview and permission of the facilitator. Potential indicators of proficiency may be required.
This course provides a practical and theoretical introduction to the field of bilingual interpreting. Students will study interpreter roles and skills, modes of interpreting and translating, ethical issues, professional standards of practices, cultural competence and applied linguistics. Upon completion, students should have a strong foundation of knowledge regarding the profession of interpreting and should be ready for specific skills training. This course is taught in English. 3 hrs. lecture/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

HCI 120
Interpreting Skills I (3 CR)
Prerequisite or corequisite: HCI 110 with a grade of "C" or higher
This course develops students’ skills in sight translation and consecutive interpreting. Listening and memory skills, communication strategies and intervention techniques also are emphasized. Upon completion, students should be able to sight translate short written texts and consecutively interpret non-technical, interactive messages between Spanish and English. This course is taught in English with some Spanish terminology and practice. 2 hrs. lecture and 2.5 hrs lab/wk.

HCI 130
Interpreting Skills II (3 CR)
Prerequisite: HCI 110 with a grade of "C" or higher and HCI 120 with a grade of "C" or higher
This course develops students' skills in simultaneous interpreting and written translation. In addition, through classroom, lab and field experiences, students practice the three interpretation modes they have learned in the program and improve all aspects of their interpreting while forming good professional habits. Self-assessment, professional growth and development of a personal philosophy of interpreting are stressed. This course is taught in English with some Spanish terminology and practice. 2 hrs lecture and 2.5 hrs lab/wk.

HCI 140
Spanish Medical Interpreting (3 CR)
Prerequisite: HCI 120 with a grade of "C" or higher and Prerequisite or corequisite: HCI 130 with a grade of "C" or higher and AAC 130 with a grade of "C" or higher
This course develops the knowledge, techniques, and practices needed to function as a bilingual interpreter in a medical environment. Students will be introduced to basic medical conditions, procedures, courses of treatment and equipment, with vocabulary and terminology in both English and Spanish. Upon completion, students should be able to apply medical interpreting and translating techniques in a variety of health care settings. This course is taught in English with some Spanish terminology. 3 hrs. lecture/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

HCI 180
Medical Interpreting Practicum (2 CR)
Prerequisite: HCI 130 with a grade of "C" or higher and HCI 140 with a grade of "C" or higher and Prerequisite or corequisite: HC 101 with a grade of "C" or higher
Students will observe and interpret at assigned medical facilities, participate in organized class discussions about their interpreting experiences and develop a personal philosophy of interpreting. Both classroom meetings and fieldwork are required for this class. 1 hr. lecture, 3 hrs. practicum/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

Health Information Technology (KMRT)

KMRT 101
Introduction to the Health Information Technology Profession (2 CR)
Orientation to the health information management profession and the supporting professional organization. History and evolution of health care delivery, facilities, and practitioners. Supervisory functions of the medical record department. 2 hrs. lecture/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of health information technology about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KMRT 102
Health Records Systems, Analysis and Control (3.5 CR)
Content, storage, retrieval, control, and retention of medical records, especially hospital records. Forms design and control, microfilming, and computer applications for medical record departments. 2.5 hrs. lecture, 2 hrs. lab/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of health information technology about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KMRT 103
Medical Terminology for Health Records (3 CR)
Professional language of medicine. Analysis of medical terms by roots and
combining forms. Disease processes, diagnostic and operative procedures for each system of the body. Selected medical specialties. 3 hrs. lecture/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of health information technology about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KMRT 106
Health Care Statistics (3 CR)
Prerequisite: KMRT 102 or approval of instructor.
Vital health statistics, their uses and values. Abstracting and analysis of data from medical records, collection of data from other sources, and methods of presenting the information. 2.5 hrs. lecture, 1 hr. lab/ wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of health information technology about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KMRT 108
Legal Aspects of the Health Information Technology Profession (2 CR)
Prerequisite: KMRT 102 or approval of the instructor
Legal principles applied to the health care professions. Confidentiality of the medical record, informed consent, the medical record as a legal document, release of clinical information, response to subpoena, and testimony. 2 hrs. lecture/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KMRT 109
Directed Practice I (2.5 CR)
Prerequisite: BIOL 144 and KMRT 102
Supervised on-the-job training in a medical records department. Supervised discussion of clinical experiences. 2 hrs. lab, 3 hrs. field studies/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of health information technology about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KMRT 110
Pharmacology (1.5 CR)
Prerequisites: BIOL 144 and KMRT 103
Introduction to basic pharmacology with a body systems approach to disease. 1 hr. lecture, 1 hr. lab/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of health information technology about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KMRT 200
Introduction to Classification Systems (1 CR)
Classification systems used to organize clinical data in health care. The ICD-9-CM classification system will be introduced. 1 hr. lecture/wk. Course taught at Penn Valley Community College. Students should contact the MCC-Penn Valley coordinator of health information technology about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KMRT 201
Quality Management (3 CR)
Prerequisite: KMRT 108 or approval of instructor
Methods of assessing and improving quality in a health care setting. Concept of
continuous quality improvement. Compliance with guidelines of regulatory and accrediting agencies. 2.5 hrs. lecture, 1 hr. lab/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of health information technology about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KMRT 202

Class. Systms/Nomenclatures/Indexes & Registers I (4 CR)
Prerequisite: KMRT 200
Nomenclatures and classification systems for coding and indexing diagnoses and procedures with special emphasis on ICD-9-CM. 2.5 hrs. lecture, 3 hrs. lab/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of health information technology about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KMRT 203

Directed Practice II (2 CR)
Prerequisite: BIOL 144 and KMRT 202 and KMRT 210 or BIOL 144 and concurrent enrollment in KMRT 202 and KMRT 210
Supervised learning experience in a medical records department under the direction of a credentialed professional involving a variety of procedures including coding and abstracting health information, medical transcription, and release of information. Supervised discussion of clinical experiences. 1 hr. lab, 3 hrs. field studies/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of health information technology about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KMRT 206

Specialized Health Records Systems (2 CR)
Overview of specialized health care systems with an emphasis on record maintenance, requirements of accrediting and regulating agencies and specialized health information registers. 2 hrs. lecture /wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of health information technology about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KMRT 207

Class. System/Nomenclature/Index & Register II (3 CR)
Prerequisite: BIOL 144 and KMRT 202
Nomenclatures and classification system for coding and indexing diagnoses and procedures with emphasis on specialized health care record systems. Impact of DRGs on the coding function. 2 hrs. lecture, 2 hrs. lab/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of health information technology about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KMRT 208

Directed Practice III (2 CR)
Prerequisite: KMRT 203
Supervised on-the-job instruction about health record systems in specialized health care facilities. Supervised discussion of directed practice experiences. 2 hrs. lab, 2 hrs. field studies. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of health information technology about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.
KMRT 210

Classif Systems & Nomenclatures/Ambulatory Care (3 CR)

Prerequisites: KMRT 200 and BIOL 108/PVCC or concurrent enrollment in BIOL 108/PVCC

Outpatient coding, classification, and payment systems. Assignment of CPT-4 codes to procedures and services. Common outpatient procedures. Role of the health information technologist in ambulatory coding & billing. 2 hrs. lecture, 2 hrs. lab/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of health information technology about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KMRT 211

Organization & Administration in Health Informat (3 CR)

Prerequisite: KMRT 201, 202, and 203

General principles of management and organization as applied to health information settings. Budget development and control, personnel recruitment and retention, performance appraisal, and progressive discipline. Office design, productivity monitoring, work simplification, job analysis and job descriptions, and quality management. 2.5 hrs. lecture, 1 hr. lab/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of health information technology about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KMRT 212

Intro to Medical Insurance & Office Procedures (1 CR)

An overview of medical office systems and administrative procedures, with emphasis on insurance billing, compliance with regulatory agencies, and technology tools, including medical transcription. 1 hr. lecture, 1 hr. lab/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of health information technology about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

Health Occupations (AVHO)

AVHO 102
Certified Nurse Aide

Prerequisite: ENGL 121 with a grade of "C" or better or Appropriate Compass reading test score. Documentation of current TB test and current CPR for Health Care Providers and a Social Security Card.

This course provides classroom and clinical instruction for the primary care of clients in long-term and acute-care facilities. Students learn skills for daily hygiene, bedside care, vital sign measurement, positioning and safe transfer of clients. The class prepares and schedules the student to take the Kansas CNA examination. In-state tuition and fees $228 total. Out-of-state tuition and fees $823 total. 96 contact hrs. For additional information go to the jccc.edu web page: click on classes; click on credit class search; click the semester; course prefix is AVHO Health Occupations. Click on CRN number for information. The credit reflected in this course is for transcript reporting, recording and transfer only. For more information, go to http://www.jccc.net/home/depts/5104/site/newstudent/types/adm_avs/CNA_Information-Requirements

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $20 to 50.

AVHO 103
Certified Nurse Aide Refresher Course
Prerequisite: Kansas CNA Certification

This 21-hour CNA refresher course provides classroom and laboratory experience to update the inactive CNA. The student will discuss the nurse aide's responsibility in the current health care system and the importance of resident rights. The student will demonstrate safety measures, infection control procedures, personal care skills, measurement of vital signs and transfers, positioning and turning. 21 contact hours. In-state tuition and fees $48 total. Out-of-state tuition and fees $178 total. For additional information go to the jccc.edu web page: click on classes; click on credit class search; click the semester; course prefix is AVHO Health Occupations. Click on CRN number for information. The credit reflected in this course is for transcript reporting, recording and transfer only. For more information, go to http://www.jccc.net/home/depts/5104/site/newstudent/types/adm_avs/CMA_Update_Info-Requirements

AVHO 104
Certified Medication Aide

Prerequisite: Appropriate Compass reading test score, and proof of Kansas CNA certification or having completed the state CNA examination and awaiting results. If CNA examination results are not satisfactory, the student must withdraw from the CMA course. Documentation of current TB skin test - negative results within the last year. Current CPR for Health Care Providers and Social Security card.

This course includes the development of knowledge related to many commonly prescribed medications. Students will learn the classification, side effects and techniques of administration, including preparation and accurate distribution of medications. Safe administration of oral medications is discussed and demonstrated. Students will be scheduled to take the Kansas CMA examination. In-state tuition and fees $199 total. Out-of-state tuition and fees $695 total. 80 contact hrs. For additional information go to the jccc.edu web page: click on classes; click on credit class search; click the semester; course prefix is AVHO Health Occupations. Click on CRN number for information. The credit reflected in this course is for transcript reporting, recording and transfer only. For more information, go to http://www.jccc.net/home/depts/5104/site/newstudent/types/adm_avs/CMA_Information-Requirements

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $20 to 50.

AVHO 106
Home Health Aide

Prerequisites: Proof of Kansas CNA certification and appropriate Compass reading test score Requirements - copy of current TB test, current CPR for Health Care Providers card, social security card

This course provides the student with information necessary for nutritional meal planning, task modification, emotional support and personal service to clients and families needing health care assistance at home. Students will be scheduled to take the Kansas HHA certification examination. In-state tuition and fees $93 total. Out-of-state tuition and fees $223 total. 21 contact hrs. For additional information go to the jccc.net web page: click on classes; click on credit class search; click the semester; course prefix is AVHO Health Occupations. Click on CRN number for information. The credit reflected in this course is for transcript reporting, recording and transfer only. For more information, go to http://www.jccc.net/home/depts/5104/site/newstudent/types/adm_avs/HHA_Information-Requirements

AVHO 108
Certified Medication Aide Update

Prerequisite: Proof of Kansas CMA certification and Proof of Kansas CNA Certification

This course meets the continuing education requirements for licensed Certified Medication Aides. The course includes review of commonly used drugs and their
interactions with foods and other drugs. Also included are discussions of legal implications and regulations related to administration and record keeping, biological effects of medications on the elderly and a review of basic safety principles. 15 contact hours. In-state tuition and fees $37 total. Out-of-state tuition and fees $130 total. For additional information go to the jccc.edu web page: click on classes; click on credit class search; click the semester; course prefix is AVHO Health Occupations. Click on CRN number for information. The credit reflected in this course is for transcript reporting, recording and transfer only. For more information, go to http://www.jccc.net/home/depts/5104/site/newstudent/types/adm_avs/CMA_Update_Info-Requirements

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $20.

AVHO 112
Rehabilitative Aide

Prerequisite: Proof of current Kansas CNA certification

This course includes both classroom and laboratory instruction for the aging process as well as the role of the rehabilitative aide as a member of the health care team. Students learn the skills required to enhance the mobility of elderly residents in long-term care as well as the skills required to care for residents with special needs. A certificate from the college will be issued. In-state tuition and fees $83 total. Out-of-state tuition and fees $281 total. 32 contact hrs. For additional information go to the jccc.edu web page: click on classes; click on credit class search; click the semester; course prefix is AVHO Health Occupations. Click on CRN number for information. The credit reflected in this course is for transcript reporting, recording and transfer only. For more information, go to http://www.jccc.net/home/depts/5104/site/newstudent/types/adm_avs/RA_Information__Requirements

AVHO 115
I V Therapy For LPNs

Prerequisite: Proof of Kansas LPN licensure. Present evidence of personal liability insurance at the time of application for admission to the program and maintain it throughout the clinical practicum. Maintenance of current CPR certification for the duration of the course. Evidence of negative TB test or chest X-ray within the past year.

This course provides review of basic physiology of the circulatory system and instruction in principles of site selection for veins appropriate for I.V. therapy. This course meets the Kansas requirements for LPNs seeking certification in I.V. therapy. In-state tuition and fees $196 total. Out-of-state tuition and fees $494 total. 48 contact hrs. For additional information go to the jccc.edu web page: click on classes; click on credit class search; click the semester; course prefix is AVHO Health Occupations. Click on CRN number for information. The credit reflected in this course is for transcript reporting, recording and transfer only. For more information, go to http://www.jccc.net/home/depts/5104/site/newstudent/types/adm_avs/IV_Therapy_Info-Requirements

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $50 to 100.

Heating, Vent., Air Conditioning (HVAC)

HVAC 121
Basic Principles of HVAC (4 CR)

Prerequisite or corequisite: HVAC 123

This is a beginning course in heating, ventilation and air conditioning technology that is appropriate for HVAC majors and other interested students. Upon successful completion of this course, the student should be able to identify the function of the basic components of an air-conditioning system. Topics will include heat laws, refrigerants, oils and refrigeration cycles of residential and light
HVAC 123
Electromechanical Systems (4 CR)
This is a beginning course in electrical theory that is required for HVAC, electrical and power plant technology, but is appropriate for all interested students. Common components found in the HVAC industry are used to develop these skills. Upon successful completion of this course, the student should be able to identify electrical components and their relationships to the various repair and troubleshooting techniques. The materials in this course will prove useful to service technicians whose background in electricity is limited. The course includes material from basic electrical theory to troubleshooting complex electrical circuits. This course will provide practice in application of electrical theory as well as in the interconnection of components of heating and cooling systems. The student will be required to provide ANSI Z87 safety glasses and may be expected to provide other basic hand tools and/or equipment. 3 hrs. lecture, 3 hrs. lab/wk.

HVAC 124
Equipment Selection and Duct Design (4 CR)
Prerequisites: HVAC 121 and HVAC 123
Upon successful completion of this course, the student should be able to identify techniques and procedures used in the residential construction industry to determine proper sizing of HVAC equipment and ducts to meet the requirements for a high-quality, comfortable climate in terms of heating, cooling, humidifying, dehumidifying, ventilation and air cleaning or filtering. The student will be required to provide ANSI Z87 safety glasses and may be expected to provide other basic hand tools and/or equipment. 3 hrs. lecture, 3 hrs. lab/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $5 to 10.

HVAC 125
Energy Alternatives (2 CR)
Upon successful completion of this course, the student should be able to identify diverse methods of alternate energy production. Some of the technologies that will be discussed are wind energy, photovoltaic energy, nuclear energy, hydroelectric energy, biomass and alternate fuel vehicles. Students will understand the advantages of using various alternate energy technologies, the effects or by-products of each and the problems that might be encountered. Some student research will be included in the context of the course. Emphasis will be on the most promising or effective alternate energy technologies available. 2 hrs. lecture/wk.

HVAC 127
Residential Systems: Heating (4 CR)
Prerequisites: HVAC 121 and HVAC 123
Upon successful completion of this course, the student should be able to identify all the components and accessories and their relation to the functions of residential heating systems. Topics covered will be natural gas, propane, oil, forced air and hydronic-types of equipment. Emphasis will be on the electrical diagrams and mechanical principles of operation of these systems. Practical instruction in service diagnosis procedures and techniques for efficient operation, maintenance, troubleshooting and repair of these systems make up the lab portion of the course. The student will be required to provide ANSI Z87 safety glasses and may be expected to provide other basic hand tools and/or equipment.
HVAC 137  
Residential Systems: Air Conditioning (4 CR)  
Prerequisite: HVAC 121 and HVAC 123  
Upon successful completion of this course, the student should be able to identify all the components and accessories and their relation to the functions of residential air conditioning systems. Topics covered will include electric and natural gas air conditioner condensing units, metering devices, evaporation coils, and refrigerants. Electrical diagrams, psychrometric charts and techniques for efficient operation, maintenance, troubleshooting and repair of these systems make up the laboratory portion of the course. The student will be required to provide ANSI Z87 safety glasses and may be expected to provide other basic hand tools and/or equipment. 3 hrs. lecture, 3 hrs. lab/wk.  
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $30 to 150.

HVAC 143  
Reading Blueprints and Ladder Diagrams (2 CR)  
Upon successful completion of this course, the student should be able to identify all types of industrial plant blueprints. Included will be a discussion of machine parts and drawings as well as hydraulic, pneumatic, piping and plumbing, electrical, air conditioning and refrigeration drawings. Sketching used in industrial plants will be covered. A portion of the course will cover the types and use of ladder logic and various components such as input, output and diagrams. The structure, symbols and terminology of ladder logic diagrams will be introduced. Logic and decision-making functions are presented, along with practice in creating ladder logic diagrams. 2 hrs. lecture/wk.

HVAC 146  
Plumbing Systems Applications (3 CR)  
Upon successful completion of this course, the student should be able to demonstrate familiarity with many aspects of fuel gas piping, gas appliance venting, water heater installations, combustion air requirements and proper piping techniques. Classroom lectures center on methods for proper sizing of both fuel gas piping and vent sizing with emphasis on interpretation of both the Uniform Plumbing Code and the National Fuel Gas Code. There will be an emphasis on combustion air requirements. Laboratory competencies will include identification of materials and proper installation methods of fuel gas lines, vent piping systems and copper water line connections. The student will be required to provide ANSI Z87 safety glasses and may be expected to provide other basic hand tools and/or equipment. 2 hrs. lecture, 3 hrs. lab/wk.

HVAC 148  
HVAC Installation and Start-up Procedures (3 CR)  
Prerequisites: HVAC 121 and HVAC 123  
Upon successful completion of this course, the student should be able to identify techniques and procedures to install new systems, retrofit systems and do an initial start-up, check-out furnaces and air conditioners. Topics will include electrical requirements, flue appliance location, permit and inspections, combustion air, sheet metal ducts, and mechanical standards. The student will be required to provide ANSI Z87 safety glasses and may be expected to provide other basic hand tools and/or equipment. 2 hrs. lecture, 3 hrs. lab/wk.

HVAC 150  
Refrigerant Management and Certification (1 CR)
Upon successful completion of this course, the student should have knowledge and confidence necessary to pass the EPA Refrigerant Certification exam and properly, efficiently and responsibly handle refrigerants as set forth in the Clean Air Act of 1990. 1 hr. lecture/wk.

HVAC 155
Workplace Skills (1 CR)
Upon successful completion of this course, the student should be able to identify the job skills necessary to have a successful career in the field of their choice. Topics included listening skills, oral communication, human relations, decision making/problem solving, how to work as a team, time and resource management, work ethics, career planning and resume building. 1 hr. lecture/wk.

HVAC 167
Sheet Metal Layout and Fabrication (3 CR)
Upon successful completion of this course, the student should be able to identify the components, equipment and operation for sheet metal layout and fabrication. Practice problems are included at the end of each unit in order to provide the student with an opportunity to apply the methods attained by sheet metal layout. Shop facilities are available. The patterns will be fabricated and joined into a line of fittings. This gives the most complete test of pattern accuracy and also provides the experience needed by a competent layout person. The student will be required to provide ANSI Z87 safety glasses and may be expected to provide other basic hand tools and/or equipment. 2 hrs. lecture, 3 hrs. lab/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $30 to 150.

HVAC 221
Commercial Systems: Air Conditioning (4 CR)
Prerequisites: HVAC 121 and HVAC 123
Upon successful completion of this course, the student should be able to identify cooling systems used in commercial, institutional and industrial applications. Types of equipment include reciprocating and centrifugal chillers, absorption systems, cooling towers, fans and air handlers. Topics also include psychometrics, pressure-enthalpy diagrams and commercial load calculations, evacuation and charging. 3 hrs. lecture, 3 hrs. lab/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $30 to 150.

HVAC 223
Commercial Systems: Heating (4 CR)
Prerequisite: HVAC 123
Upon successful completion of this course, the student should be able to identify large heating systems used in commercial, institutional and industrial applications. Types of equipment include hot water, low-pressure and high-pressure steam boilers; auxiliary, safety and flame safeguard controls; steam traps; condensate return; and water treatment systems. The student will be required to provide ANSI Z87 safety glasses and may be expected to provide other basic hand tools. 3 hrs. lecture, 3 hrs. lab/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $30 to 150.

HVAC 229
Advanced Control Systems (4 CR)
Prerequisite: HVAC 123 and HVAC 121
Upon successful completion of this course, the student should be able to identify the components and theory in electronic, pneumatic and direct digital control systems as they apply to HVAC systems. This course will reinforce and build on
those competencies learned in HVAC 123 and HVAC 121. Classroom lectures will center on components, wiring diagrams, calibration and sequences of operation, system components, theory of operation, wiring diagrams and installation methods. Laboratory competencies include identification, calibration, maintenance and problem diagnosis of pneumatic, electronic and DDC systems, thermostat controllers and their related sensors/transmitters. Students will program a complete building energy management system. Interactive instructional media will be used in this course. 3 hrs. lecture, 3 hrs. lab/wk

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $30 to 150.

**HVAC 231**
**HVAC Rooftop Units (3 CR)**

*Prerequisites: HVAC 121 and HVAC 123*

Topics will include electrical controls and economizers of various rooftop units, roof curbs, installation, service, diagnosis, evacuation and charging of typical light commercial rooftop units. The student will be required to provide ANSI Z87 safety glasses and may be expected to provide other basic hand tools and/or equipment. 2 hrs. lecture, 3 hrs. lab/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $30 to 150.

**HVAC 235**

*Prerequisites: HVAC 121 and HVAC 123*

Upon successful completion of this course, the student should be able to identify the function of all components and accessories of all electric and dual heat pump systems. Topics will include electric heat and heat pump fundamentals, principles and applications; refrigerant flow controls; defrost cycle controls; heat pump thermostats; indoor air distribution; dual fuel controls; and change-over stats. Emphasis will be on the electrical diagrams and mechanical principles of operation. These systems, as well as practical instruction in service and diagram procedures and techniques for the efficient operation, maintenance, troubleshooting and repair of these systems, will make up the lab portion of the course. The student will required to provide ANSI Z87 safety glasses and may be expected to provide other basic hand tools and/or equipment. 3 hrs. lecture, 3 hrs. lab/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $30 to 150.

**HVAC 271**
**HVAC Internship (3 CR)**

*Prerequisite: Program facilitator approval*

Upon successful completion of this course, the student should be able to apply classroom knowledge to an actual work situation. The internship will provide advanced students with on-the-job experience under the supervision of professionals in the industry. The work will be developed cooperatively with area employers, college staff and each student to provide a variety of actual job experiences directly related to the student’s career goals. 1 hr. lecture, minimum 15 hrs. on-the-job training/wk.

**History (HIST)**

**HIST 120**
**Local and Kansas History (3 CR)**

This course introduces students to the history of Kansas from the beginning of the Late Ceramic Period (1500) to the present. Emphasis will be on the examination of the living patterns of the various peoples who have inhabited the region during this time frame. This course will also analyze the social and economic factors and
political objectives that transformed the central plains from the domain of the bison-hunting Plains Indian to a society based in a market-agricultural economy. 3 hrs./wk.

HIST 125
Western Civilization: Readings and Discussion I (3 CR)
The course explores the major developments, ideas and personalities that have shaped Western civilization. Organized around a readings and discussion format, students engage some of the world's most provocative and influential literature. Western Civilization I begins with the ancient cultures of the Middle East, Greece and Rome and follows the development of Western thought from the medieval period to the Renaissance and Reformation. 3 hrs. lecture/wk. It is not necessary to take HIST 125 before HIST 126.

HIST 126
Western Civilization: Readings and Discussion II (3 CR)
The course explores the major developments, ideas and personalities that, for the past 500 years, have shaped Western civilization. Organized around a readings and discussion format, the course allows students to engage some of the world's most provocative and influential literature. Western Civilization II begins with the three revolutions that define modernity: Scientific, French, and Industrial. The course also highlights the new ideologies of the 19th century and more recent themes of modernization and the cultural crisis of the 20th century. 3 hrs. lecture/wk. It is not necessary to take HIST 125 before HIST 126. This course may be offered as a Learning Communities (LCOM) section, see current credit schedule for LCOM details.

HIST 128
Medieval History (3 CR)
Medieval History is a detailed survey of the period from late Roman Antiquity to the early Renaissance. Primary and secondary texts and visual resources will be used to illuminate the period that saw first the decline into relative stagnation caused by barbarian onslaughts, and then gradual reemergence of a powerful civilization that revitalized itself by renewing the insights of ancient times. 3 hrs. lecture/wk.

HIST 129
Early Modern Europe 1500-1789 (3 CR)
This course is an introduction to early modern European history, with emphasis on the economic, social and political developments that have shaped the modern world: the Renaissance; the Catholic and Protestant Reformations; the rise of nation-states; the new inter-cultural contact between Europe and the world; the Commercial Revolution and the Enlightenment. 3 hrs. lecture/wk.

HIST 130
European History Since 1789 (3 CR)
This course covers the major political, intellectual, and economic and social developments in Europe from the end of the 18th century to the present, including modern political ideologies, major wars, the growth of strong governments, the effect of modern science on social and political thought, the Industrial Revolution, the creation of large middle classes, and the effect of modern technology. 3 hrs./wk.

HIST 132
History of Africa (3 CR)
This course introduces students to the history of Africa until the present. It emphasizes the fundamental characteristics and long-term developments in the evolution of African political and socioeconomic institutions. 3 hrs./wk.

HIST 135
Eastern Civilization (3 CR)
This course is an introduction to the societies and cultures of Asia. Through lectures, readings and discussions, the course will focus on aspects of the history, politics, art, literature and economics of China, Japan and India. The major traditional themes and concepts of these civilizations will be stressed. 3 hrs./wk.

HIST 137
African American Studies (3 CR)
This course surveys the major themes and developments in African-American culture and history from the colonial period to the present. The course is divided into three five-week segments. Each segment relates to a historical period: slave, post-emancipation and contemporary. Each segment also permits a flexible, interdisciplinary approach that will include literature, fine arts and the social sciences. 3 hrs. lecture/wk.

HIST 140
U.S. History to 1877 (3 CR)
This survey course in U.S. history will emphasize developments and trends in American society from the early period of discovery and settlement through Reconstruction. Topics will include the Colonial era, the Revolutionary period, the Federalist era, the expansion of the Republic during the mid-19th century, and the Civil War and Reconstruction. The emphasis will be on analysis and interpretation of these developments. 3 hrs./wk. This course may be offered as a Learning Communities (LCOM) section, see current credit schedule for LCOM details.

HIST 141
U.S. History Since 1877 (3 CR)
This survey course will emphasize developments and trends in American society from the 1870s to the late twentieth century. Topics will include the Reconstruction era, industrialization, immigration, reform movements, World Wars I and II, social and cultural trends, and foreign policy. Emphasis will be on analysis and interpretation of these developments. 3 hrs./wk. This course may be offered as a Learning Communities (LCOM) section, see current credit schedule for LCOM details.

HIST 151
World History I: Traditional World (3 CR)
This course provides students an introduction to the history of the major world civilizations up to approximately 1500. Upon successful completion of the course, students will be able to identify the major political, social, economic and technical developments in the histories of Egypt, Mesopotamia, other Near Eastern civilizations, Rome, Greece, India, China, sub-Saharan Africa, pre-Columbian America and medieval Europe. Students will be able to define the concept of a traditional, as opposed to a modern, society. They will be able to compare these societies with each another and with the modern society of the contemporary United States. 3 hrs. lecture/wk.

HIST 152
World History II: Modern World (3 CR)
This course provides students an introduction to the history of the world since approximately 1500. Upon successful completion, students will be able to describe and analyze the development of modernism, which occurred first in the West, including the scientific revolution, secularism, industrialism and the rise of new political ideologies. They will be able to trace the expansion of modernization in both the Western and non-Western worlds and the response to modernism in non-Western countries. 3 hrs. lecture/wk.

HIST 160
Modern Russian History (3 CR)
This course examines three centuries of the social, political, economic and cultural forces shaping Russian history, beginning with a survey of the events that place Russia outside the Western historical tradition. 3 hrs./wk. or online. Usually this course is offered in the fall semester.

HIST 162
Modern Latin America (3 CR)
This course is an examination of the economic, social, political and cultural history of Latin America since independence. Regional identities, such as Central America, and independent national states, such as Cuba and Mexico, are explored. Literary and intellectual trends together with contemporary popular culture are featured in the course. 3 hrs./wk.

HIST 164
Japan: Changing Tradition (3 CR)
Prerequisite: Assistant Dean Approval
This self-paced course explores Japanese history, politics and economics from the early days of the Tokugawa regime from 1500 to the present. The thrust of the course is geared to exploring the themes that permeate the Japanese experience over the past two centuries.

Home Economics (HMEC)

HMEC 151
Nutrition and Meal Planning (3 CR)
This course covers the basic food groups, their use in meal planning, their functions and their nutritional values. In addition to the current trends in eating, this course covers diets and exercise, as well as fad diets, life-cycle nutritional needs, and the effects of nutrient intake on growth and development. This is a required course for the food and beverage program and the chef apprenticeship program. 3 hrs./wk.

Honors Program (HON)

HON 250
Honors Forum: In Search of Solutions (3 CR)
This course will focus on two topics during the semester and how those topics affect the local, national and global communities. The course complements other courses in the curriculum by applying the dual emphases of specific content and skill development to the areas of interaction, analysis, synthesis and conflict resolution. Students will study each issue in a historical and contemporary
context, develop a greater understanding of the issues, and take a position on the issues. This position will be subjected to further challenge and dialogue. In this course, the process of reflecting, researching, analyzing and evaluating are as important as content. As points of view concerning the issue are developed, the students must articulate and defend these viewpoints as they are challenged by others and make judgments among alternative options. The first topic is selected by the faculty members, then midway through the semester, the students will select the second topic. This course will require students to use many forms of research, including the Internet and electronic databases. In addition, students will be expected to use e-mail for sharing information with classmates and instructors.

**Horticulture (HORT)**

**HORT 115**  
Home Horticulture (2 CR)  
This course provides basic knowledge for the design and management of home lawns, flower and vegetable gardens, and landscape trees and shrubs. Students will learn basic plant anatomy and physiology concepts; how to recognize some common plant deficiency symptoms; the use of fertilizers and pesticides; identification of some common trees, shrubs and garden plants; and the major considerations of good landscape design. 1 hr. lecture, 2 hrs. lab/wk.

**HORT 120**  
Introduction to Urban Agribusiness (3 CR)  
This is a general survey course for students who wish to learn more about the broad field of agribusiness. Particular emphasis is on the many facets of landscape and grounds management. Career areas that will be covered are interior landscaping, greenhouse management, the position of pesticide applicators’ position and golf course management. 3 hrs. lecture/wk.

**HORT 135**  
Landscape Design (3 CR)  
The course is designed to familiarize students with aspects of landscape design. Students will analyze the site and preferences of the client and complete a landscape design following basic design principles. Students will learn to make a hand drawing to scale as well as being introduced to computer-aided design. Note: Plant material courses (HORT 214, HORT 215, HORT 220) could be helpful for this course but are not required. 2 hrs. lecture, 2 hrs. lab/wk.  
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10.

**HORT 140**  
Turfgrass (3 CR)  
The basics of turfgrass identification, selection, use and care will be covered. The emphasis will be on efficient management of soil and turf on large or small grounds. Upon successful completion of this course, students should be able to demonstrate their ability to properly identify the major categories of turfgrass; establish and maintain turfgrass; identify turfgrass pests; and develop a pest control fertilizer program. Irrigation systems, their maintenance and repair will also be discussed. 2 hrs. lecture, 2 hrs. lab/wk.

**HORT 150**  
Fruits, Vegetables and Herb Crops (2 CR)  
This course is designed to familiarize garden center employees with the plant materials and production of crops many homeowners use and grow. This course will help the employee answer many homeowner questions about production,
varieties and potential crop problems. Home hobbyists may also wish to enroll in this course. 1 hr. lecture, 2 hrs. lab/wk.

HORT 160
Garden Center Operations (3 CR)
This course is designed for garden center employees and provides background on the elements necessary for success in a competitive retail environment. The business organization is emphasized, including environmental monitoring, selling, inventory issues, merchandising, advertising, cost effectiveness, labor/team relationships and customer service. In addition, safety and legal issues are examined. 3 hrs. lecture/wk.

HORT 201
Introduction to Horticultural Science (4 CR)
This is an introduction to the principles and practices of horticultural plant systems. Plant structure and function will be discussed, along with the effects of environmental factors on plant growth. General cultural practices will be described, including pest control, mineral nutrition and plant propagation. 3 hrs. lecture, 2 hrs. lab/wk.

HORT 205
Plant Propagation (3 CR)
Prerequisite: HORT 201
This course provides basic knowledge of the art and science of sexual and asexual methods of propagating plants. Students study the processes of seed development, seed dormancy, germination, root initiation and grafting. Students will learn basic seed sowing, cutting and grafting skills. The students will be able to demonstrate the selection of appropriate propagation methods and choose the proper environmental conditions necessary to achieve successful propagation of seeds or cuttings. 2 hrs. lecture, 2 hrs. lab/wk.

HORT 210
Concepts of Floral Design (3 CR)
This is an introductory course for students to learn the design basics of flower arranging. The course will help the students develop an eye for color combinations, flow of lines, balance, geometric shapes and textures in materials used, mechanics of design, customer perspectives and the post-harvest care of floral materials. 2 hrs. lecture, 3 hrs. lab/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $100 to 150.

HORT 214
Woody Plants I, Deciduous (3 CR)
This course will assist the grounds maintenance employee, landscaper, garden center employee and home hobbyist in identifying plant materials used in the landscape. This class places emphasis on deciduous trees sold in garden centers and used in climatic zones 5 and 6. Plant uses, specific characteristics, cultivation, seasonal effects and influences that affect plant choices will be taught. 2 hrs. lecture, 3 hrs. lab/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10.

HORT 215
Woody Plants II, Evergreens (3 CR)
This course will assist the grounds maintenance employee, landscaper, garden center employee and home hobbyist in identifying evergreen trees and shrubs and flowering shrubs sold in garden centers used in climatic zones 5 and 6. The plant uses, specific characteristics, plant cultivation, seasonal effects, influences that affect plant choices and customer service attributes will be taught. 2 hrs. lecture, 3 hrs. lab/wk.

**Associated Costs:** In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10.

**HORT 220**

**Herbaceous Plants (3 CR)**

This course will focus on the identification and uses of perennials, annuals, bulbs, ground covers and vines. The course will assist the grounds maintenance employee, landscaper, garden center employee and home hobbyist in identifying and selecting herbaceous plant materials used in the landscape. Culture and care will be covered, with additional emphasis on uses and maintenance. The student will also cover the more creative aspects of landscape enhancement and uses of herbaceous plants in garden design. 2 hrs. lecture, 3 hrs. lab/wk.

**Associated Costs:** In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10.

**HORT 225**

**Plant Problems (3 CR)**

*Prerequisites: HORT 214 and HORT 220 or permission of assistant dean*

This course is a broad-spectrum overview of plant insects, diseases and nutrition. Students will look at plants to identify the common characteristics found when diagnosing plant problems. Identification, treatment and treatment alternatives will be considered to help customers make diagnostic decisions for the use of chemicals and integrated pest management techniques (IPM). 2 hrs. lecture, 3 hrs. lab/wk.

**HORT 235**

**Landscape Maintenance and Techniques (3 CR)**

This course is designed to familiarize students with the principles and techniques involved in landscape maintenance including pruning techniques, fertilization, irrigation, spray schedules and weed control. Installation and maintenance of annual and perennial plant material is examined. In addition, the student will learn to design preventive strategies and identify and examine disease and insect damage. The students will learn how to maintain good customer relations. 2 hrs. lecture, 2 hrs. lab/wk.

**Associated Costs:** In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $30.

**HORT 240**

**Turfgrass Management II (3 CR)**

*Prerequisite: HORT 140*

More specific information is provided on turfgrass management. Topics include green construction, top dressing, sprayer calibration, management programs (e.g., setting up a lawn care program) and the influence environment has on turfgrass growth. 3 hrs. lecture/wk.

**HORT 255**

**Landscape Pest Control (3 CR)**

This course will explore the general concepts of turf and ornamental maintenance and pest control in the local area. The student will become familiar with federal and state regulations pertaining to horticulture chemical application. Upon completion of this course, the student should be prepared to take the Kansas or Missouri licensing examination to become a certified applicator of restricted horticultural pesticides and herbicides. 3 hrs. lecture/wk.
HORT 260  
Horticulture Soils (3 CR)  
This course covers soil components as well as the physical, chemical and biological properties of soils that affect plant growth. Emphasis will be placed on horticultural substrates and urban soils and their applications. 2 hrs. lecture, 2 hrs. lab/wk.

HORT 265  
Landscape Construction (3 CR)  
This course will cover the theories, principles and practices used in the interpretation and implementation of landscape construction. It will include site planning and preparation, safety principles, tool use and identification, landscape and construction materials, job bid development and project management. Construction projects in the class will vary by semester. 2 hrs. lecture, 2 hrs. lab/wk.  
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $100 to 235.

Hospitality Management (HMGT)

HMGT 120  
Food Service Sanitation (1 CR)  
This course covers the basic principles of providing and serving safe food. It also provides the student with safe food-handling procedures necessary to manage a sanitary and safe food service operation in compliance with the National Food code and the National Restaurant Association. The successful completion of the Serv Safe Sanitation exam will result in a national sanitation certification. 1 hr. lecture/wk.

HMGT 121  
Perspectives of Hospitality Management (3 CR)  
This introductory course is designed to provide students with current information on topics relevant to career exploration, employment and operational specifics of the various segments of the hospitality industry. The course includes exploration of the tourism, lodging, food and beverage and related industries, along with the operational characteristics unique to each and the critical concepts of service management. The identification of current events and trends will be included along with the evaluation of impact on the hospitality industry. This course also identifies and explores career opportunities and includes the professional profiles and job search materials directly related to the hospitality industry. 3 hrs. lecture/wk.  
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $25 to 50.

HMGT 123  
Professional Cooking I (3 CR)  
Prerequisite or corequisite: HMGT 120  
This is the first of two courses in professional cooking methods for students enrolled in hospitality management programs. Upon completion of this course, the student should be able to demonstrate skills in basic cooking methods, recipe conversion, and professional food preparation and handling. Additionally, the student should be able to safely operate common food service equipment used in commercial kitchens. 1 hr. lecture, 2.5 hrs. lab/wk.  
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $50 to 200.
HMGT 126
Food Management (4 CR)
Prerequisites: HMGT 123 and HGMT 230 and HMGT 277 and admission to the hospitality management program
This course offers an overview of restaurant management practices used in the hospitality industry. Emphasis will be on demonstrating the components of menu planning and the styles of food service used for various occasions -- buffet service and French, Russian and American service. The student will participate in the operation of the campus restaurant, including food preparation, service, sales promotion, purchasing and costing. 7 hrs./wk.

HMGT 128
Supervisory Management (3 CR)
This course contains the basic supervisory management skills, management styles, motivation with emphasis on human relations, delegation, training, evaluation and communication. In addition, the hiring and firing functions within FLSA guidelines will be covered. 3 hrs./wk.

HMGT 130
Hospitality Law (3 CR)
This course offers an overview of product and dram shop liability as well as of the various areas of federal and state legislation that regulate the hospitality industry. Emphasis will be on familiarizing the hospitality manager with ways to avoid costly and time-consuming lawsuits. A manager’s or owner’s legal rights and responsibilities also will be discussed. Upon successful completion of this course, the student should be able to recognize potential legal problems. 3 hrs./wk.

HMGT 132
Seminar in Housekeeping Operations (3 CR)
This course presents a systematic approach to managing housekeeping operations in the hospitality industry. The course will also include related health department and OSHA regulations. While enrolled in this class, a student must work a minimum of 15 hours a week in a lodging operation. The work experience is concurrent but does not necessarily concentrate on the subject being taught in the course. This course is typically offered in the fall semester. 2 hrs./wk.

HMGT 145
Food Production Specialties (3 CR)
Prerequisite: HMGT 123
This course covers the fundamentals of convenience baking, hors d’oeuvre and cold kitchen preparation. It provides knowledge of and basic skills in the pastry kitchen, where the student can handle convenience products from the frozen or dried state and produce finished pies, cakes and dessert items. It provides further knowledge of and skill in the garde-manger kitchen, specifically making salads, cocktail hors d’oeuvres and cocktail sandwiches, as well as making economic purchases for gourmet food items. In addition, the student will learn how to make intermezzo ices, identify different types of cheese, and design and make a general plan for a buffet. 1 1/2 hrs. lecture, 2 hrs. lab/wk.

HMGT 150
Seminar: Food Service Sales and Marketing (3 CR)
This course includes detailed information in distinguishing the difference between marketing, sales, promotion, advertising and merchandising. In addition, development and quantifying the cost of a marketing plan by analyzing markets and developing a primary target market will be discussed. This course is a
seminar course, and students are required to be employed 15 hours per week in a job related to the hospitality industry. 3 hrs. lecture, 15 hrs. internship/wk.

HMGT 203
Hotel Sales and Marketing (3 CR)
Prerequisites: HMGT 121 and admission to the hospitality management program
This course will focus on practical sales and marketing techniques for the hotel industry. It will cover a marketing plan and advertising campaign for a hotel, including identifying target markets, prospecting for sales leads and using sales techniques. This course is typically offered in the fall semester. 3 hrs. lecture/wk.

HMGT 207
Hospitality Human Resource Management (3 CR)
Prerequisite: HMGT 128
This course will examine hospitality human resources management from the global perspective as the rise of multinational hospitality corporations and a multicultural society place new requirements on managers with human resource responsibilities. Special emphasis will be placed on both the "soft skills" involved in counseling, interpersonal relations and different management theories, as well as the "hard skills" involved in the legislative aspects of managing people. This course will concentrate on how to manage managers. 3 hrs. lecture/wk.

HMGT 220
American Regional Cuisine (3 CR)
Prerequisite: HMGT 230
This course introduces the student to regional American cooking from nine regional culinary traditions and two specialty traditions within American cuisine. Students will study the cuisine of New England; the Mid-Atlantic states; the Deep South; Florida and the Caribbean; Cajun and Creole; the Central Plains and Rocky Mountain states; Tex-Mex and the American Southwest; California and Hawaii; the Pacific Northwest, as well as vegetarian cuisine and kosher dietary laws. Upon completion of this course, the student should be able to demonstrate skills in cooking and presenting classic American dishes in their traditional forms within a restaurant setting. 1 hr. lecture, 2.5 hrs. lab/wk.

HMGT 221
Design and Facilities Management (3 CR)
Prerequisites: HMGT 123 and HMGT 271
This course includes detailed information about food service design that covers layout, design and equipment specifications. In addition, facilities operations will be discussed regarding electrical, water and transportation systems; refrigeration; waste disposal; energy management; and HVAC. Preventive maintenance will be emphasized. 3 hrs./wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $25 to 100.

HMGT 223
Fundamentals of Baking (3 CR)
This course covers bakeshop production as it relates to the basic principles of ingredients, measurements, mixing, proofing, baking and final presentation. In addition, the student will be able to identify the various types of baking equipment used in the preparation of bakeshop products. The class includes lecture and participation. 1 hr. lecture, 2.5 hrs. lab/wk.
HMGT 226
Garde Manger (3 CR)
Prerequisite: HMGT 230
This course is designed for the student to learn cold food production and charcuterie. The course will allow the student to develop fundamental principles of the cold kitchen and modernize traditional methods of salad preparation. 1 hr. lecture, 2.5 hrs. lab/wk.

HMGT 228
Advanced Hospitality Management (3 CR)
Prerequisite: Assistant Dean's Approval
This course includes detailed information about various components of menu planning, food service, supervision, design and beverage control. In addition, an understanding of the external factors affecting the hotel-restaurant industry will be discussed. Skills necessary to secure a position in management within the hospitality industry will be emphasized, and case studies and computer simulation (HOTS) will be used for critical thinking analysis. Business plans will be developed as part of the course project. 3 hrs./wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $25 to 50.

HMGT 230
Professional Cooking II (3 CR)
Prerequisites: HMGT 120 and HMGT 123
This is the second of two courses in professional cooking methods for students enrolled in hospitality management programs. This course is designed to help the student continue to develop professional cooking skills in the savory kitchen, the pastry shop and the cold kitchen. Upon successful completion of this course, the student should be able to demonstrate the skills necessary to prepare standard menu items, to prepare basic convenience baked products, and to prepare basic garde manger items. The class will include menu planning for plated and buffet meals. In addition, the student will learn how to make frozen desserts and intermezzo ices, identify different cheeses and other specialty items. This course consists of lecture, demonstration and participation in food preparation. 1 hr. lecture, 2.5 hrs. lab/wk.

HMGT 231
Advanced Food Preparation (4 CR)
Prerequisites: HMGT 230 and assistant dean's approval
This course is designed to develop a student's advanced culinary skills in preparation of international cuisine commonly served in today's operations in Latin America, Europe, Asia, the Middle East, the Far East and the Pacific area. 4 hrs. lecture/wk.

HMGT 235
Seminar: Risk Management and Loss Prevention (3 CR)
This course explains the issues surrounding the need for individualized security programs, examines a wide variety of security and safety equipment and procedures, discusses guest protection and internal security for asset protection. It explores risk management and loss prevention issues and outlines OSHA regulations that apply to lodging properties. While enrolled in this class, a student must work a minimum of 15 hours a week in a lodging operation. The work experience is concurrent but does not necessarily concentrate on the subject being taught in the course. This course is typically offered in the spring semester. 2 hrs lecture, 15 hrs. work/wk.
HMGT 240
Advanced Baking (4 CR)
Prerequisites: HMGT 123 and HMGT 223
This course covers the principles needed to enter the baking and pastry industry. The course provides knowledge of specialty ingredients and techniques needed to make tortes, finished desserts and a wedding cake. The student will be instructed in the making of these items through lecture and will prepare a variety of such items in lab. 4 hrs. lecture, lab/wk.

HMGT 248
Confectionery Arts (3 CR)
This course covers the design and production of artistic centerpieces made from confections. It provides knowledge of and basic skills in making decorative dining table centerpieces using food products such as cooled and pulled sugar syrup, isomalt, pastillage, marzipan and chocolate. The student will be instructed in the preparation of these ingredients and will construct center and showpieces after viewing demonstrations. 4.5 hrs. lecture, lab/wk.

HMGT 250
Introduction to Catering (3 CR)
This course includes detailed information about the different types of catered events within the hospitality industry. Topics covered include the importance of marketing, contract writing, food production, room arrangements and required personnel relative to specific catered events. 3 hrs. lecture/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $5 to 25.

HMGT 256
Casino Management (3 CR)
This course is designed to familiarize students with the unique conditions and management challenges associated with a casino property. An overview of game operation and rules will serve as a foundation. Management controls will be emphasized including how to compute statistical data to assist management in operations. The course is not intended to be a training exercise. Casino marketing and ways to develop effective player rating systems will be analyzed. The history of the casino industry and regulatory environment will also be examined. The course is not intended to be a training exercise for those interested in learning to deal games. 3 hrs. lecture/wk.

HMGT 265
Front Office Management (3 CR)
This course provides a full understanding of the flow of business from the front office, beginning with the reservations process to checkout and settlement. It also includes the night audit and statistical analysis of rates and revenue management. This course is typically offered in the spring semester. 3 hrs./wk.

HMGT 268
Hospitality Managerial Accounting (3 CR)
Prerequisites: MATH 120 and HMGT 121 and HMGT 273
This course introduces the student to basic managerial accounting. This includes accounting concepts, processing data, and the flow of financial information within a hospitality operation. The course provides a working knowledge of an income statement, balance sheet, statement of owner's equity, and cash flows. 3 hrs. lecture/wk.
HMGT 271
Seminar in Hospitality Management: Purchasing (3 CR)
This course offers an overview of purchasing techniques and specification writing for commodities used in the hospitality industry. Emphasis will be on decision-making skills in the areas of quality, quantity, specifications and general value analysis. Two hours in class and a minimum of 15 hours a week are required in a supervised work situation in an approved area of the hospitality industry. Work experience is concurrent but does not necessarily concentrate on the subject being taught in the course.

HMGT 273
Hospitality Cost Accounting (3 CR)
Prerequisites: MATH 120 or higher and HMGT 121
This course includes detailed information on how to prepare operation statements for a food service operator, including inventory and control systems. Areas of concentration will be food cost controls, labor cost controls, purchasing controls and profit production. The practice set will be used to reinforce control systems. 2 hrs./wk.

HMGT 275
Seminar in Hospitality Management: Internship (3 CR)
Prerequisite: Admission to the hospitality management program
This course provides industry experience for students in cooperating businesses, agencies and organizations. While enrolled in this course, a student must work a minimum of 320 hours in an approved position in the hospitality industry. By arrangement.

HMGT 277
Seminar in Hospitality Management: Menu Planning (3 CR)
Prerequisite: HMGT 123
This course provides the basic knowledge of menu design and planning. Students will learn the components of menu design and planning for each concept category. The course will cover the topics of menu layout, selection and development, price structures and the theory of menu design. A minimum of 15 hours a week is required in a supervised work situation in an approved area of the hospitality industry. Work experience is concurrent but does not necessarily concentrate on the subject being taught in the course. 2 hrs. lecture/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $5 to 25.

HMGT 279
Beverage Control (3 CR)
This course covers the history of wines and their use and storage procedures. The students should gain an understanding of beverage control and how it is used in all types of operations. The course will also cover in-depth study of spirits, internal control systems and local/state alcoholic beverage control laws. 3 hrs./wk.

HMGT 281
Culinary Arts Practicum I (2 CR)
Prerequisite: Acceptance into the American Culinary Federation Chef Apprenticeship training program and hospitality management assistant dean's approval
A qualified chef who is a member of the American Culinary Federation will supervise this on-the-job apprentice training. Upon successful completion of this course, the student should be able to apply food preparation and presentation...
techniques and gain experience in all phases of food service operation. 

**Associated Costs:** In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $100 to 300.

**HMGT 282**  
**Culinary Arts Practicum II (2 CR)**  
**Prerequisite:** HMGT 281  
A qualified chef who is a member of the American Culinary Federation will supervise this on-the-job apprentice training. Upon successful completion of this course, the student should be able to apply food preparation and presentation techniques and gain experience in all phases of food service operation. This course is a continuation of Culinary Arts Practicum I.

**HMGT 285**  
**Culinary Arts Practicum III (2 CR)**  
**Prerequisite:** HMGT 282  
A qualified chef who is a member of the American Culinary Federation will supervise this on-the-job apprentice training. Upon successful completion of this course, the student should be able to apply food preparation and presentation techniques and gain experience in all phases of food service operation. This course is a continuation of Culinary Arts Practicum II.

**HMGT 286**  
**Culinary Arts Practicum IV (2 CR)**  
**Prerequisite:** HMGT 285  
A qualified chef who is a member of the American Culinary Federation will supervise this on-the-job apprentice training. Upon successful completion of this course, the student should be able to apply food preparation and presentation techniques and gain experience in all phases of food service operation. This course is a continuation of Culinary Arts Practicum III.

**HMGT 287**  
**Culinary Arts Practicum V (2 CR)**  
**Prerequisite:** HMGT 286  
A qualified chef who is a member of the American Culinary Federation will supervise this on-the-job apprentice training. Upon successful completion of this course, the student should be able to apply food preparation and presentation techniques and gain experience in all phases of food service operation. This course is a continuation of Culinary Arts Practicum IV.

**HMGT 288**  
**Culinary Arts Practicum VI (2 CR)**  
**Prerequisite:** HMGT 287 and Assistant Dean’s Approval and approval of hospitality management assistant dean  
A qualified chef who is a member of the American Culinary Federation will supervise this on-the-job apprentice training. Upon successful completion of this course, the student should be able to apply food preparation and presentation techniques and gain experience in all phases of food service operation. This course is a continuation of Culinary Arts Practicum V.

**Hospitality Mgt Pastry Baking (HMPB)**
HMPB 155  
Pastry Shop Production I (4 CR)  
Prerequisite: HMGT 120 and HMGT 123 and Corequisite: HMPB 160 and HMPB 233 and HMPB 252  
This course will provide hands-on instruction of techniques used to make basic pastry shop staples used in the production of items intended for retail sales in a professional pastry shop. This course is typically offered in the fall semester. 1 hr. lecture & 4 hrs. lab/wk.

HMPB 160  
Pastry Shop Principles I (4 CR)  
Prerequisite: HMGT 120 and HMGT 123 and Corequisite: HMPB 155 and HMPB 233 and HMPB 252  
This course will examine the fundamental baking concepts including sanitation, ingredient identification and usage, weights and measures, inventory and product ordering needed as it pertains to a professional pastry shop. Students will be operating a working bake shop. This course is typically offered in the fall semester. 1 hr. lecture 3 hrs. lab/wk.

HMPB 233  
Patisserie (4 CR)  
Prerequisite: HMGT 120 and HMGT 123 and Corequisite: HMPB 155 and HMPB 160 and HMPB 252  
This course will provide hands-on instruction of techniques to make finished pastry items such as tortes, tarts, pastries, cookies, candies and breads as well as how to present items in a professional manner. This course is typically offered in the fall semester. 1 hr. lecture 3 hrs. lab/wk.

HMPB 252  
Pastry Shop Business Basics I (3 CR)  
Prerequisite: HMGT 120 and HMGT 123 Corequisite: HMPB 155 and HMPB 160 and HMPB 233  
This course will provide basic hands-on techniques used to market finished pastry items, customer service, setting up, restocking and maintaining a display case, as well as taking pastry orders. This course is typically offered in the fall semester. 1 hr. lecture 3 hrs. lab/wk.

HMPB 255  
Pastry Shop Production II (4 CR)  
Prerequisite: HMPB 155 and HMPB 160 and HMPB 233 and HMPB 252 and Corequisite: HMPB 260 and HMPB 257 and HMPB 252  
This course will provide hand-on instruction of advanced techniques used to make advanced staples used in the production of advanced pastries, cakes, tarts, and tortes intended for retail sales in a professional pastry shop. This course is typically offered in the spring semester. 1 hr lect. 3 hrs lab./wk.

HMPB 257  
Sugar Basics (4 CR)  
Prerequisite: HMPB 155 and HMPB 160 and HMPB 233 and HMPB 252 and Corequisite: HMPB 255 and HMPB 260 and HMPB 262  
This course will provide hands-on instruction of pulled and brown sugar techniques used for garnishing advanced pastry items. The student will learn how to cook, pull, blow and store sugar pieces used in a professional pastry shop. This
course is typically offered in the spring semester. 3 hrs. lab and 1 hr. lab/wk.

HMPB 260  
**Pastry Shop Principles II** (4 CR)  
*Prerequisite: HMPB 155 and HMPB 160 and HMPB 233 and HMPB 252 and Corequisite: HMPB 255 and HMPB 257 and HMPB 262*  
This course will examine the advanced baking concepts including high dollar ingredient identification and usage, storage, advanced inventory control, costing and product sources and product availability as it pertains to a professional pastry shop. This course is typically offered in the spring semester. 1 hr. lecture, 3 hrs. lab/wk.

HMPB 262  
**Pastry Shop Business Basics II** (3 CR)  
*Prerequisite: HMPB 155 and HMPB 160 and HMPB 233 and HMPB 252 and Corequisite: HMPB 255 and HMPB 260 and HMPB 257*  
This course will provide advanced hands-on techniques used to market finished pastry items, execute excellent customer service, establishing operational guidelines, inventory and restocking, product ordering, product research, maintaining a display case, as well as taking pastry orders. This course is typically offered in the spring semester. 1 hr. lecture 2 hrs. lab/wk.

**Humanities (HUM)**

HUM 122  
**Introduction to Humanities** (3 CR)  
This interdisciplinary study begins with a look at artistic and technical elements of several art forms, including painting, sculpture, architecture, music, theater, film, dance and literature. Major themes expressed in the works and their reflection of the values of their culture are also examined.

HUM 137  
**Introduction to Russian Culture** (3 CR)  
This course is a survey of the cultural history of Russia from the ninth century to the present. The approach is interdisciplinary, examining representative examples of Russian art, architecture, music, theater, dance, literature and philosophy in their historical context. In addition to developing the students' appreciation of Russia's contribution to world culture, the course aims to enhance students' understanding of the contemporary world. 3 hrs. lecture/wk. When paired with Introduction to Literature, Russian emphasis, it includes an online component. Usually this course is offered in the spring semester. This course may be offered as a Learning Communities (LCOM) section, see current credit schedule for LCOM details.

HUM 138  
**Introduction to Russian Culture, Field Study** (1 CR)  
*Prerequisite: HUM 137 or approval of instructor*  
This course is the field study portion of the HUM 137, Introduction to Russia, course. Students study, on site, selected works of art, architecture, music, literature, theater and film for the various historical periods from the perspective of Russian experts in these fields. In addition, students enhance their knowledge of Russian history by visiting the sites of many of the major events that have shaped the development of Russia's culture. 2 hrs. lab/wk.
HUM 145
Introduction to World Humanities I (3 CR)
This course will acquaint students with the arts and ideas of the world's major civilizations, from antiquity through the Renaissance. The approach will be interdisciplinary, covering the artistic values embodied in painting, sculpture, architecture, literature, theater, music and dance as they have emerged out of their historical contexts. In addition to providing the fundamental principles, methodologies and theories used in the study of the humanities, the course aims to enhance students' understanding of the contemporary world. 3 hrs. lecture/wk.

HUM 146
Introduction to World Humanities II (3 CR)
This course will acquaint students with the arts and ideas of the world's major civilizations, from the Renaissance to the present. The approach will be both interdisciplinary and chronological, covering the artistic values embodied in painting, sculpture, architecture, literature, theater, music and dance as they have emerged out of their historical contexts. In addition to providing the fundamental principles, methodologies and theories used in the study of the humanities, the course aims to enhance students' understanding of the contemporary world. 3 hrs. lecture/wk.

HUM 155
Classical Mythology (3 CR)
This course provides a systematic study of the myths and epic cycles of the Greeks and Romans in both literature and art and investigates their survival and metamorphosis in the literature and visual arts of Western Europe. In addition, this course provides several methodological frameworks with which to analyze several types of tales and their relation to history, religion, rituals and art.

HUM 164
Civilization (3 CR)
This course covers the major ideas and events of Western civilization communicated through the arts. The course begins after the fall of the Roman Empire and includes material to the 20th century.

Industrial Technology (INDT)

INDT 125
Industrial Safety (3 CR)
Upon successful completion of this course, the student should be able to identify various industrial safety and health considerations, list basic safety rules and regulations, identify the proper personal protective equipment needed for common industrial tasks and recognize the need for an ongoing safety program. 3 hr. lecture/wk.

INDT 140
Quality Improvement Using SPC (2 CR)
Upon successful completion of this course, the student should be able to describe and apply basic concepts of quality improvement. This course will examine the application of the "Transformation of America" concept to American businesses. Statistical process control will be introduced as a tool to improve quality. W. Edwards Deming's 14 points and the management changes required to implement quality improvement also will be covered. 2 hrs. lecture/wk.
INDT 155
Workplace Skills (1 CR)
Upon successful completion of this course, the student should be able to identify the job skills necessary to have a successful career in the field of his or her choosing. Topics include listening skills, oral communication, human relations, decision making/problem solving, how to work as a team, time and resource management, work ethics and career planning. 1 hr. lecture/wk.

Information Technology (IT)

IT 200
Networking Technologies (3 CR)
This course is designed to provide students with the fundamentals of networking technology. Concepts covered include network terminology and protocols, network standards, LANs and WANs, the layers of the OSI reference model, cabling practices, network topologies, and IP addressing.

IT 203
Voice over IP Fundamentals (4 CR)
Prerequisite: IT 200
This course is designed to provide students with the fundamentals of Voice over IP (VoIP) networking technology. Concepts covered include an explanation of the national voice and data network, telephony terminology, VoIP protocol analysis and telephony survey techniques. 3 hrs. lecture, 2 hrs. lab/wk.

IT 205
Implementing Windows Client (3 CR)
Prerequisite: IT 200
The focus of this course is the use of Microsoft Windows as an operating system in a business environment. Planning a simple network system, installation and configuration of the software and hardware, resource management, connectivity, running application software under Windows, monitoring and optimizing system hardware, and troubleshooting all lead the student to a deeper understanding of local area network use and administration. 2 hrs. lecture, 3 hrs. lab/wk.

IT 210
Netware Administration (3 CR)
Prerequisites: IT 200 and ELEC 126 and IT 205
This course is designed to provide students with the necessary knowledge and skills to perform competently in the role of a NetWare network administrator. Students completing this course will be able to accomplish basic network management tasks. Topics covered include managing user accounts; planning and managing the network file system; managing NetWare Directory Services (NDS); implementing login, file system and NDS security; and implementing network printing. 2 hrs. lecture, 3 hrs. lab/wk.

IT 221
Windows Server (3 CR)
Prerequisites: IT 200 and ELEC 126 and IT 205
This course is designed to provide students with the knowledge and skills to perform competently in the role of a network administrator utilizing the Windows network operating system. Students completing this course will be able to
accomplish basic fundamental network management tasks, including planning server roles and subsequent requirements, planning the network file system, implementing user accounts and file system security, implementing network printing, and managing the network servers. 2 hrs. lecture, 3 hrs. lab/wk.

**IT 225**  
**Windows Active Directory Services** (3 CR)  
*Prerequisite: IT 221*  
The focus of this course is using Microsoft Windows Server or Advanced Server software to install, configure and troubleshoot Active Directory components, Domain Name Space (DNS) for Active Directory and Active Directory security solutions. The course also emphasizes the skills required to manage, monitor and optimize the desktop environment using Group Policy. 2 hrs. lecture, 3 hrs. lab/wk.

**IT 227**  
**SQL Server Administration** (3 CR)  
*Prerequisite: IT 221*  
Upon successful completion of this course, the student should be able to administer an SQL server installation. Topics covered include installing, upgrading and configuring SQL servers using SQL utilities; working with databases and users; backing up and restoring databases and log files; automating maintenance tasks; managing, copying and moving data; replicating; tuning; and troubleshooting. 2 hrs. lecture, 3 hrs. lab/wk.

**IT 228**  
**Exchange Server** (3 CR)  
*Prerequisite: IT 225*  
This course is designed to provide network administrators with information that enhances their ability to manage an Exchange server network. Included are topics related to server and client mail management and server performance, e-mail concepts and advanced Internet networking. 3 hrs. lecture, 2 hrs. lab/wk.

**IT 230**  
**UNIX Fundamentals** (3 CR)  
*Prerequisites: IT 200 and ELEC 126*  
This course is designed to provide students with a fundamental understanding of the UNIX operating system environment. Students successfully completing this course will be able to plan server roles and subsequent requirements; execute common Unix commands and utilities; and accomplish basic system tasks such as navigating the file system, applying file system security, managing user accounts, installing and configuring user software, using the printing environment, and managing the resources of a basic Unix system. 2 hrs. lecture, 3 hrs. lab/wk.

**IT 231**  
**UNIX Administration** (3 CR)  
*Prerequisite: IT 230*  
This course is designed to provide students with the necessary knowledge and skills to perform competently as a Unix system administrator. Students successfully completing this course should be able to perform basic system administration tasks including installing, configuring and troubleshooting a basic Unix system, managing devices, implementing the printing environment, creating and maintaining file systems, installing packages, and configuring the graphical user interface. 2 hrs. lecture, 3 hrs. lab/wk.
IT 232  
**UNIX Networking and Security** (4 CR)  
**Prerequisite:** IT 231  
This course is designed to provide network administrators with information that enhances their ability to manage a Unix network in the enterprise. Included are topics that are related to Unix management of DNS, DHCP, NFS, advanced routing services and Samba. 3 hrs. lecture, 2 hr. lab/wk.

IT 245  
**Network Infrastructure** (3 CR)  
**Prerequisite:** IT 221  
This course is designed to provide an in-depth understanding of the ability to install, manage, monitor, configure and troubleshoot DNS, DHCP, Remote Access, Network Protocols, IP, Routing and WINS in a Windows 2000 network infrastructure. In addition, it will provide an in-depth understanding of the ability to manage, monitor and troubleshoot Network Address Translation and Certificate Services. Laboratory exercises will accompany the lectures. 2 hrs. lecture, 3 hrs. lab/wk.

IT 246  
**Introduction to Routers** (3 CR)  
**Prerequisite:** IT 200  
This course is designed to provide students a fundamental understanding of network routing and the operation of routers. Topics include installing and configuring routers, OSPF and Link State routing protocols, working with metrics and route selection, and TCP/IP configuration. Programming and setup using Cisco routers will be conducted. Laboratory exercises will accompany lectures. 2 hrs. lecture, 3 hrs. lab/wk.

IT 247  
**Introduction to Wide-Area Networks** (3 CR)  
**Prerequisite:** IT 246  
This course is designed to provide students a fundamental understanding of internetworking. Topics include local area network segmentation using switches and routers. Wide area network physical technologies will be studied. Configuring WAN protocols using PPP, ISDN and Frame Relay will be presented. Securing the network with standard and extended access lists will be performed. IP and IPX routing will be covered. Programming and configuration will be conducted using Cisco routers and switches. Laboratory exercises will accompany lectures. 2 hrs. lecture, 3 hrs. lab/wk.

IT 249  
**Advanced Routing** (3 CR)  
**Prerequisite:** IT 247  
This course provides advanced instruction of Cisco routers found in medium to large networks. It is intended for students preparing for advanced Cisco certification. Upon completion of this course, the student will be able to select and implement the appropriate Cisco services required to build a scalable router network. Topics covered include extending IP addressing, implementing OSPF for a single area and multiple areas, configuring EIGRP, and implementing BGP. This course will follow semester five in the Cisco Networking Academy curriculum.

IT 250  
**Networking Seminar** (3 CR)
This course is designed to teach advanced concepts in information technology. Topics covered are section specific and include e-mail servers, Web servers, database servers, routing, switching and advanced LAN design concepts. Prerequisites are posted for each section. Students may use this course as a capstone for applying concepts and procedures developed in previous courses using realistic business scenarios. 2 hrs. lecture, 3 hrs. lab/wk.

**IT 251**  
**Network Security Fundamentals (4 CR)**  
*Prerequisites: IT 230 and IT 221 and IT 247*

This course is designed to provide students with a fundamental understanding of network security principles and implementation. Topics covered include authentication, the types of attacks and malicious code that may be used against computer networks, the threats and countermeasures for e-mail, Web applications, remote access, and file and print services. A variety of security topologies will be discussed as well as technologies and concepts used for providing secure communication channels, secure internetworking devices, intrusion detection systems, and firewalls. Hands-on exercises will be used to reinforce the concepts. 3 hrs. lecture, 2 hrs. lab/wk.

**IT 252**  
**Firewall Security (5 CR)**  
*Prerequisite: IT 247*

This course is designed to teach students how to protect local area networks (LANs) using firewall security devices. It focuses on the overall security process based on a security policy with an emphasis on hands-on skills. It covers the basic functionality of the Cisco Private Internet Exchange (PIX) product family. Students will learn specific PIX configurations and settings designed to maximize security. This course is also intended to prepare students to pass the Cisco Secure PIX Firewall Certification exam. 3 hrs. lecture, 2 hrs. lab/wk.

**IT 253**  
**Advanced Switching (3 CR)**  
*Prerequisite: IT 247*

This course provides advanced instruction of Cisco switches found in medium to large networks. It introduces students to the deployment of the state-of-the art campus Local Area Networks (LAN). The course focuses on the selection and implementation of the appropriate Cisco Internetworking Operating System (IOS) services to build reliable scalable multilayer-switches LANs. Students will develop skills with Virtual LANs (VLAN), Virtual Trunking Protocol (VTP), Spanning Tree Protocol (STP), inter-VLAN routing, redundancy, Quality of Service (QoS) issues, campus LAN security, and transparent LAN services.

**IT 254**  
**Remote Access Networks (3 CR)**  
*Prerequisite: IT 247*

This is an advanced course that covers the techniques and features for enabling or enhancing Wide Area Network (WAN) and remote access solutions. It focuses on using one or more of the available WAN dialup or permanent connection technologies for remote access between enterprise sites. This course includes asynchronous modem connections, Point-to-Point Protocol (PPP) features, and network security using Virtual Private Networks (VPNs). Students will apply common remote access solutions including ISDN Basic Rate Interface and Primary Rate Interface (BRI and PRI), Dial-On-Demand Routing (DDR), Frame Relay, dial backup, Quality of Service (QOS), and Authentication Authorization Accounting (AAA). 3 hrs. lecture, 2 hrs. lab/wk.
**IT 255**  
**Wireless Security** (4 CR)  
*Prerequisite: IT 247*  
This course is designed to teach the student how to build, maintain and configure security on a Wireless Local Area Network (WLAN). It provides the student with hands-on projects to reinforce WLAN concepts from LAN cabling and other information technology and electronics courses. Upon completion of this course, students should be able to design, document and troubleshoot the security plan and operation of a WLAN. This course is also intended to prepare the student to pass the Cisco Wireless LAN Certification exam. 3 hrs. lecture, 2 hrs. lab/wk.

**IT 271**  
**Information Technology Internship I** (3 CR)  
*Prerequisites: IT 210 or IT 221 or IT 230 and assistant dean's approval*  
This course affords the student the opportunity to apply classroom knowledge to an actual work environment. It will provide advanced information technology students with appropriate on-the-job experience with area employers, under instructional oversight, which will promote the student’s career goals. Student will work a total of 300 hours a semester at an approved job site.

**IT 272**  
**Information Technology Internship II** (3 CR)  
*Prerequisites: IT 271 and Assistant Dean’s Approval and approval of the program assistant dean*  
This course is a continuation of IT 271, Internship I. It provides the student additional opportunity to apply classroom knowledge to an actual work environment. Students will work a total of 300 hours per semester at an approved job site.

**Interactive Media (CIM)**

**CIM 130**  
**Interactive Media Concepts** (2 CR)  
This survey course introduces students to the interactive media field. Topics to be covered include the definition of interactive media, the basic stages of interactive media creation and project management fundamentals. Current and future trends in interactive media will also be covered. 2 hrs. lecture/wk.

**CIM 133**  
**Screen Design** (4 CR)  
*Prerequisites: CDTP 135*  
This course will cover fundamental visual principles and the creation of graphic elements, as well as the layout of those visual elements, for the computer screen. Visual perception, composition, color and typographic principles will be covered as applicable to presentation graphics, Web graphics, CD-ROM and kiosk graphics. Cross-platform issues will be addressed. This course is intended to provide nondesigners with fundamental visual literacy. 3 hrs. lecture, 2 hrs. lab/wk.

**CIM 135**  
**Digital Imaging and Video** (3 CR)  
*Prerequisite: CDTP 135 Recommended: PHOT 121*
This course provides an introduction to electronically mediated photography, including digital video. The course covers basic concepts of photographic communication and design. The course covers basic techniques of electronic photography, including operation of input devices, two-dimensional and time-based computer imaging and digital video production software programs and output devices. Recommended prior courses are Fundamentals of Photography and Introduction to Photoshop. 6 hrs. integrated lecture, lab/wk.

**CIM 140**  
**Interactive Media Assets** (4 CR)  
*Prerequisites: CDTP 135 and CDTP 145 and CWEB 105 and CWEB 130  
Prerequisite or corequisite: CIM 130*  
This course explores the creation, acquisition and management of assets for use in the development of interactive media. Assets to be covered include digital graphics, digital sound, digital video and computer-based animation. 3 hrs. lecture, 2 hrs. lab/wk.

**CIM 154**  
**Interactive Authoring I: Director** (4 CR)  
*Prerequisite: CIM 130 and Prerequisite or corequisite: CIM 140*  
This course will provide a hands-on approach to authoring/programming. Upon completion of this course, the student should be able to produce a Director interactive media or Internet presentation that includes text, graphics, sound, movies and animation. The student should have the skills needed to create both a linear presentation and an interactive presentation. Navigational strategies for CD-ROM and Internet will be discussed. 3 hrs. lecture, 2 hrs. lab/wk.

**CIM 156**  
**Interactive Authoring I: Web** (4 CR)  
*Prerequisite: CIM 130 Prerequisite or corequisite: CIM 140*  
This course will focus on the front-end aspects of Web design, HTML, authoring, graphics production and media development. The course will introduce concepts about the way the World Wide Web works, which will orient students to the peculiarities of the Web and introduce them to new technologies that are destined to have an important effect on the Web's future but are currently in various stages of development. Students will examine specifications for each project, carefully analyze individual sites and, as a class, establish a set of criteria that define what works, what doesn't and why. 3 hrs. lecture, 2 hrs. lab/wk.

**CIM 200**  
**Interactive Communication Form** (3 CR)  
*Prerequisite or corequisite: CIM 130*  
This course will focus on concepts and forms of human communication historically, currently and in the future of our culture. Immediated and mediated forms of communication, such as lecture, telephony, television, print and computer interaction, will be explored. Particular attention will be given to how communication forms affect content. Emphasis will be on the integration of communication forms as demonstrated by interactive media applications. 3 hrs. lecture/wk.

**CIM 230**  
**Interactive Media Development** (4 CR)  
*Prerequisite: CIM 154 or CIM 156 and Corequisite: CIM 250*  
The course will provide a conceptual as well as a hands-on exploration of the
development process for interactive media. Information design, interaction design 
and presentation design will be equally emphasized. Students produce a series 
of projects starting with the use of text and graphics and building toward more 
complex projects employing animation and video. 3 hrs. lecture, 2 hrs. lab/wk.

CIM 235
Advanced Digital Video (3 CR)
Prerequisite: CIM 135
This course provides advanced instruction in the production and applications of 
digital video. The course covers advanced concepts and techniques in video 
design and production, from the initial preproduction scripts and storyboards 
through actual shooting to nonlinear editing, mastering and output. The emphasis 
is on in-depth, advanced, practical experience in producing professional-level 
video products for a variety of applications, including education, corporate, 
documentary and entertainment. 3 hrs. lecture, 2 hrs. lab/wk.

CIM 250
Interface Design (4 CR)
Prerequisite: CIM 154 or CIM 156 Corequisite: CIM 230
This course will specifically focus on the issues and complexity of interface design 
for interactive media applications. Students are provided an in-depth study of the 
use of the building blocks of interface design: backgrounds, windows and panels, 
buttons and controls, text, images, sound, video and animation. Through 
readings, critiques, exercises and discussions, students will explore what makes 
the interface of an interactive media application successful. 3 hrs. lecture, 2 hrs. 
lab/wk.

CIM 254
Interactive Authoring II: Director (4 CR)
Prerequisite: CIM 154
At completion of this course, the student should be able to create Director 
applications using Director’s scripting language and the Internet capabilities of 
Macromedia Director. The primary emphasis of the course is hands-on 
experience with the Lingo, Behaviors, Shockwave and scripts of Director. During 
the course, students will be involved in learning advanced Lingo. 3 hrs. lecture, 2 
hrs. lab/wk.

CIM 270
Interactive Media Project (4 CR)
Prerequisites or corequisites: CIM 200 and CIM 230 and CIM 250
This project-oriented course will require students to actively participate in a group 
interactive media project, which will require each student to analyze the problem; 
write a project proposal; design, produce and gather assets for the project; 
prototype and create a project; and test and evaluate the final project. 3 hrs. 
lecture, 2 hrs. lab/wk.

CIM 272
Interactive Media Internship (1 CR)
Prerequisite: Program facilitator approval required
Students will work in an approved training situation under instructional 
supervision. The internship is designed to give the student the opportunity to use 
the skills learned in the interactive media program. Student interns will be 
required to complete a minimum of 180 hours of on-the-job training. ANI 272 and 
CIM 272 are the same course; do not enroll in both.
CIM 273
Career Preparation (4 CR)
Prerequisite: CIM 230 and CIM 250 and Prerequisite or corequisite: CIM 270
This course will provide interactive media majors instruction in the presentation of his or her work in a digital portfolio format of professional quality. A printed and written resume will be produced. Self-promotion, networking, job searches and interview skills will also be covered. 3 hrs. lecture, 2 hrs. lab/wk. CIM 273 is the same course as ANI 273; do not enroll in both.

Interior Design (ITMD)

ITMD 121
Interior Design (3 CR)
This course provides basic, introductory knowledge about interior design. Upon successful completion of this course, the student should understand the significance of interior design, complete projects using the elements and principles of design and color theory in interior spaces, use space planning skills to arrange furniture on a floor plan, and present the floor plan and its decorative scheme. 3 hrs./wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $75 to 100.

ITMD 123
Space Planning (3 CR)
Prerequisites: ITMD 121 with "C" or higher and DRAF 164 with a grade of "C" or higher or DRAF 261 with "C" or higher
This is an advanced course focusing on space planning. Upon successful completion of this course, the student should be able to demonstrate an advanced level of furniture arrangement on a floor plan. 4 hrs. integrated lecture and lab/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $50.

ITMD 125
Interior Textiles (3 CR)
This course is a comprehensive study of textiles used in interior design. Upon successful completion of this course, the student should be able to differentiate fibers and textiles according to their specific characteristics and to select fibers and interior textiles for specific applications. Specific course content includes properties and characteristics of natural and man-made fibers; construction methods; and various finishing processes, such as weaving, knitting, felting, printing and dyeing. The course will concentrate on textiles designed for interior applications. 2 hrs. lecture, 2 hrs. lab/wk.

ITMD 127
Elements of Floral Design (1 CR)
This course provides in-depth knowledge and hands-on application of floral design. Upon successful completion of this course, the student should be able to use the principles of floral design, develop a proficiency in the techniques of line and mass arrangements, possess a greater appreciation for flowers and other plant material, apply the mechanics and design considerations involved in working with silk and dried materials, and design and create silk and dried floral arrangements. 1.5 hrs. integrated lecture, lab/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $100 to 150.

ITMD 129
Design Presentation (3 CR)
Prerequisites: ITMD 121 with a grade of "C" or higher and DRAF 164 with a grade of "C" or higher or DRAF 261 with a grade of "C" or higher

This is an intermediate course focusing on interior design presentation skills. Upon successful completion of this course, the student should be able to demonstrate visual communication skills including isometric, axonometric, oblique and perspective drawings as well as the use of rendering techniques and color to enhance drawings. Additionally the student should be able to organize, mount and verbally present storyboards to communicate the design concept. 2 hrs. lecture, 2 hrs. lab/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $75 to 100.

ITMD 132
Materials and Resources (3 CR)
This course provides in-depth knowledge about materials used in interior spaces. Upon successful completion of this course, the student should be able to evaluate the quality of interior materials; demonstrate the ability to use catalogs and other product information resources; identify manufacturing and/or construction techniques used in products; use correct terminology to describe the various types of interior materials; and compare the design, use, durability and cost of materials. 3 hrs./wk. This course may be offered as a Learning Communities (LCOM) section, see current credit schedule for LCOM details.

ITMD 133
Furniture & Ornamentation/Antiquity to Renaissance (3 CR)
This course provides in-depth knowledge in the study of Western furniture and ornament. Upon successful completion of this course, the student should be able to analyze and compare the furniture, ornamentation, design motifs and textiles of historical periods from antiquity to the Renaissance. Additionally, the student should be able to define the religious, political and social influences on the ornamentation and furnishings of each period. The student should also be able to identify the craftsmanship and materials used in the furniture of each historical period and correctly use vocabulary related to each era. 3hrs./wk.

ITMD 140
Window Treatments (1 CR)
Prerequisites: ITMD 121 and ITMD 125 both with a grade of "C" or higher and Prerequisite or Corequisite: ITMD 271 or ITMD 275 both with a grade of "C" or higher

This course provides comprehensive knowledge about draperies and window treatments and their construction. Upon successful completion of this course, the student should be able to explain the use of correct vocabulary relating to drapery and window treatments, explain the equipment used in the drapery industry, distinguish appropriate textiles and hardware for specific window treatments, measure for window treatments, and describe and select the proper suspension system for specific window treatments. The student will measure, select and present the proper style, fabric and suspension system for a specific window treatment. 1 hr./wk.

ITMD 143
Accessory Fundamentals (1 CR)
Prerequisite: ITMD 121 with a grade of "C" or higher

This course provides in-depth knowledge about accessories and accessory placement. Upon successful completion of this course, the student should be able to identify the various principles and elements of design as they relate to accessories. Students should be able to identify and explain the difference between functional and decorative accessories. Additionally, the student should demonstrate an understanding of the quality of different types
accessories, how to identify the client's personal style, and how to successfully place different types of accessories. 1 hr. lecture/wk.

ITMD 145
Upholstered Furniture (1 CR)
Prerequisites: ITMD 121 and ITMD 125 both with a grade of "C" or higher and
Prerequisite or corequisite: ITMD 271 or ITMD 275 both with a grade of "C" or higher
This course provides comprehensive knowledge about upholstery construction. Upon successful completion of this course, the student should be able to demonstrate the use of correct vocabulary relating to upholstery construction, explain the equipment used in the upholstery industry, identify appropriate textiles and materials for upholstery use, and describe the various suspension systems used in bench-constructed and mass-produced furniture. 1 hr./wk.

ITMD 147
Lighting Basics (1 CR)
Prerequisite: ITMD 121 with a grade of "C" or higher or FASH 125
This course provides general knowledge about lighting design and planning. Upon successful completion of this course, the student should be able to define and use vocabulary relating to lighting design and planning. The student should be able to recognize and explain lighting application and technology used in the lighting industry. 1 hr. lecture/wk.

ITMD 148
History of Asian Furniture and Design (2 CR)
This course provides in-depth knowledge in the study of Asian furniture and ornament. Upon successful completion of this course, the student will be able to analyze and compare furniture, ornamentation, design motifs and textiles of the Near East and Far East during historical periods from antiquity to modern times. The student should be able to identify the religious, political and social influences on the ornamentation and furnishings of each period. In addition, the student should be able to identify the craftsmanship and materials used in the furniture of each historical period and to demonstrate the use of correct vocabulary related to each era. 2 hrs./wk.

ITMD 149
Casegoods (1 CR)
Prerequisite: ITMD 121 with a grade of "C" or higher
Upon successful completion of this course the student should be able to understand various construction techniques, describe different wood species and their properties, and explain the best functional and decorative uses for each wood species. The student will apply principles and elements of design when selecting casegoods, describe care and repair of casegoods, and understand current trends in the casegood industry. 1 hr. lecture/wk.

ITMD 150
Asian Rugs and Carpets (1 CR)
This course provides in-depth knowledge in the study of Asian carpets and rugs. Upon successful completion of this course, the students will be able to analyze and compare materials, ornamentation, design motifs and textiles of the Near East and Far East during historical periods from antiquity to modern times. The student should be able to identify the religious, political and social influences on the ornamentation and furnishings. In addition, the student should be able to demonstrate the use of correct vocabulary. 1 hr./wk.
ITMD 175  
**Advanced Floral Design (1 CR)**  
*Prerequisite: ITMD 127*  
This course is a continuation of Elements of Floral Design and provides the student with a more comprehensive application of floral design for home interiors. Upon successful completion of this course, the student will be able to determine the appropriate floral design for an existing home, design a variety of florals for specific placement, work with other students on a specific project and learn how to buy and price interior floral designs. 1 hr. lecture, 1.5 hrs. lab/wk.

ITMD 180  
**Leadership in Design (1 CR)**  
*Prerequisite: ITMD 123 with a grade of "C" or higher*  
Upon successful completion of this course, the student should be able to identify leadership skills necessary to have successful involvement in the field of interior design and professional organizations. Topics include group communication methods, time management, team-building skills, and organizing and facilitating meetings. Students desiring leadership opportunities in professional organizations are encouraged to enroll. 1 hr. lecture/wk.

ITMD 189  
**Sustaining Design (1 CR)**  
Upon successful completion of this course, the student should be able to understand and explain the concepts, terminology and global issues of the various ecological approaches to design and of the impact of design on the environment. The student will have an understanding of the cradle-to-cradle paradigm. Students will learn to identify the impact their selections will have on the environment and to consider ecological options when specifying products. 1 hr. lecture/wk.

ITMD 213  
**Lighting Design and Planning (3 CR)**  
*Prerequisite: ITMD 121 with grade of "C" or higher or FASH 125*  
This course provides in-depth knowledge about lighting design and planning giving the student the ability to not only understand but to manipulate and create the lighting plan. Upon successful completion of this course, the student should be able to define and use vocabulary relating to lighting design and planning and to recognize and explain lighting application and technology used in the lighting industry. Additionally, the student should be able to identify and describe proper fixtures and equipment for lighting applications and demonstrate skills in selecting proper lighting designs for specific applications. 3 hrs. lecture/wk.

ITMD 219  
**Issues in Interior Design (3 CR)**  
*Prerequisite: ITMD 221 with a grade of "C" or higher*  
This course is designed to educate the student on the current issues that affect the interior design profession such as environmental design, green/sustainable design and Universal Design. These topics may vary based on current industry concerns. Upon successful completion of this course, the student should be able to identify, explain and analyze ramifications to the industry that arise from the economy, politics and social culture. 3 hrs. lecture/wk.

ITMD 221  
**Residential Design (3 CR)**  
*Prerequisites: DRAF 264 with a grade of "C" or higher and ITMD 123 with a grade
of "C" or higher and ITMD 129 with a grade of "C" or higher or ITMD 122 with a grade of "C" or higher.

This is an advanced course focusing on residential design. Upon successful completion of this course, the student should be able to demonstrate an advanced level of space planning and furniture arrangement on a floor plan. In addition, the student will develop color schemes that will solve specific assigned interior design problems and demonstrate the ability to coordinate fabrics, colors, texture, patterns and finishes in a complete floor plan for a residential unit. The student will produce floor plans and additional views enhanced by color and shadow. 2 hrs. lecture, 3 hrs. lab/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $50.

ITMD 223
Commercial Design (3 CR)
Prerequisites: DRAF 264 with a grade of "C" or higher

This is an advanced course focusing on contract design. Upon successful completion of this course, the student will be able to define and use vocabulary related to contract design, identify and use proper architectural symbols common to contract floor plans and elevations, and explain the differences between residential and contract design. Additionally, the student should be able to demonstrate the skills necessary to convert, redesign and create contract design space; explain the concept of open office planning; and compare and analyze the costs and benefits of open planning versus closed planning. 2 hr. lecture, 3 hrs. lab/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $50.

ITMD 225
Interior Textiles II (3 CR)
Prerequisite: ITMD 125 with a grade of "C" or higher

This course is an advanced study of textiles used in interior design. Upon successful completion of this course, the student should be able to differentiate fibers and textiles according to their specific characteristics and to select fibers and interior textiles for specific applications. The course concentrates on textiles designed for residential and contract applications. 2 hrs. lecture 2 hrs. lab/wk.

ITMD 231
Furniture & Ornamentation Renaissance to 20th Century (3 CR)

This course provides in-depth knowledge in the study of Western furniture and ornament. Upon successful completion of this course, the student should be able to analyze and compare furniture, ornamentation, design motifs and textiles of historical periods from the Renaissance to the 20th century. Additionally, the student should be able to define the social, religious and political influences on the ornamentation and furnishings of each period. The student should also be able to identify the craftsmanship and materials used in the furniture of each historical period and correctly use vocabulary related to each era. 3 hrs./wk. This course may be offered as a Learning Communities (LCOM) section, see current credit schedule for LCOM details.

ITMD 234
Kitchen and Bath: Planning and Design (3 CR)
Prerequisites: DRAF 264 with a grade of "C" or higher and either ITMD 122 with a grade of "C" or higher or ITMD 123 with a grade of "C" or higher

This is a comprehensive course in kitchen and bath design and planning. Upon successful completion of this course, the student should be able to define and use proper vocabulary related to kitchen and bath design and construction, identify and use proper architectural symbols common to kitchen and bath plans and elevations, state the space relationships required for proper kitchen and bath usage, convert to metric measurements, and draw a kitchen and bath floor plan.
and elevation. 2 hrs. lecture, 1 hr. lab/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $50 to 75.

**ITMD 237**
**Capstone: Merchandising and Entrepreneurship (2 CR)**

*Prerequisite: Approval of program facilitator*

This course is designed as a capstone for the Interior Merchandising and Interior Entrepreneurship programs. It should be taken in conjunction with or after completion of the final interiors studio course or in the graduating semester. Upon successful completion of this course, the student should be able to select and rework portfolio materials for maximum visual potential and appeal. In addition, the student will prepare a resume, conduct a job search, and present written and oral presentations based on resource and product files from other classes. 2 hrs. lecture/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $75 to 100.

**ITMD 239**
**Capstone: Interior Design (2 CR)**

*Prerequisite: Approval of program facilitator*

This course is designed as a capstone for the Interior Design Program. It should be taken in conjunction with or after completion of the final interior studio course or in the graduating semester. Upon successful completion of this course, the student should be able to select and rework portfolio materials for maximum visual potential and appeal. In addition, the student will prepare a resume, conduct a job search, and present written and oral presentations based on resource and product files from other classes. 2 hrs. lecture/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $75 to 100.

**ITMD 250**
**20th Century Designers (1 CR)**

This course provides in-depth knowledge in the study of the 20th-century designers. Upon successful completion of course, the student should be able to analyze and compare furniture, ornamentation, design motifs and textiles of various 20th-century designers. Recognition of periods and individual styles is stressed. The student will have an opportunity to study a specific designer in depth. 1 hr lecture /wk.

**ITMD 271**
**Budgeting and Estimating (3 CR)**

*Prerequisite: ITMD 121 with a grade of "C" or higher and ITMD 125 with a grade of "C" or higher and MATH 120 or higher with a grade of "C" or higher*

Upon successful completion of this course, the student should be able to demonstrate a business-like approach toward job and work, explain and list methods of pricing interior design/merchandising materials and services, measure accurately for materials, utilize business math in interior design/merchandising applications, and accurately compute cost in cases. 3 hrs. lecture/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $20.

**ITMD 273**
**Interiors Seminar: Practices and Procedures (2 CR)**

*Prerequisite: ITMD 122 with a grade of "C" or higher or ITMD 123 with a grade of "C" or higher*

Upon successful completion of this course, the student should be able to demonstrate the use of proper interior design industry terminology, appropriate business forms and contracts, define the types of business legal structure, and
solve business organizational and ethical problems through use of case studies. 2 hrs./wk.

ITMD 282
Interiors Internship I (1 CR)
Prerequisite: ITMD 121 with a grade of C or higher
Upon successful completion of this course, the student should be able to apply classroom knowledge to an actual work situation. This course consists of supervised work experience in an approved training situation. It is designed to provide practical experience in the interiors industry. A minimum of 15 hours each week on-the-job training is required.

ITMD 284
Interiors Internship II (1 CR)
Prerequisite: ITMD 121 with a grade of C or higher
Upon successful completion of this course, the student should be able to apply classroom knowledge to an actual work situation. This course consists of supervised work experience in an approved training situation. It is designed to provide practical experience in the interiors industry. A minimum of 15 hours each week on-the-job training is required.

ITMD 295
Field Study: Design and Merchandising (3 CR)
Prerequisite: ITMD 121 and approval of the program facilitator
This travel-for-credit course consists of visits to manufacturing plants, a market showroom and a merchandise mart in a major market city.

ITMD 296
Interior Design: the Orient (3 CR)
Upon successful completion of this course, the student should be able to recognize and identify Asian furniture pieces and accessories from different countries; define and use vocabulary common to the art periods; and compare and contrast furniture and accessory pieces observed in museums, temples, homes and antique stores. This course will include five 3-hour pre-departure seminars followed by a three-week field trip to Japan, Hong Kong and Thailand.

Interpreter Training (INTR)

INTR 120
Elementary American Sign Language I (3 CR)
This class will focus on the development of beginning American Sign Language communication skills. Comprehension skills and linguistic features of the language taught in context will be emphasized. 6 hrs. integrated lecture-lab/wk. INTR 120 and FL 180 are the same course. Do not enroll in both.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $0 to 10.

INTR 121
Elementary American Sign Language II (3 CR)
Prerequisite: INTR 120 or FL 180
This course will focus on continued development of elementary American Sign
Language skills beyond those taught in Elementary ASL I. Students will work on developing communication competencies, concentrating on comprehension and production skills. Information about the linguistic and cultural features will be included in the context of language learning experiences. 6 hrs. integrated lecture-lab/wk. INTR 121 and FL 181 are the same course; do not enroll in both.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $250.

**INTR 122**  
**Intermediate American Sign Language I (3 CR)**  
*Prerequisite: INTR 121 or FL 181 with a grade of "C" or higher and Corequisite: For students accepted in the interpreter training program: INTR 130 and INTR 126 and INTR 147 and INTR 145 all with a grade of "C" or higher*  
This course will focus on the development of intermediate American Sign Language communication skills. Comprehension skills and linguistic features of the language taught in context will be emphasized. 6 hrs. lecture-lab/wk. The daytime sections only are open to students in the interpreter training program. INTR 122 and FL 270 are the same course; do not enroll in both.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

**INTR 123**  
**Intermediate American Sign Language II (3 CR)**  
*Prerequisite: INTR 122 or FL 270 with a grade of "C" or higher and Corequisite: For students accepted in the interpreter training program: INTR 131 and INTR 135 and INTR 242 and INTR 248 all with a grade of "C" or higher*  
The course will continue study of intermediate American Sign Language. It is designed to develop further intermediate communication skills in American Sign Language. Information about the linguistic and cultural features will be included in the context of language learning experiences. 6 hrs. integrated lecture-lab/wk. The daytime sections are open only to students in the interpreter training program. INTR 123 and FL 271 are the same course; do not enroll in both.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

**INTR 126**  
**Classifiers in American Sign Language (2 CR)**  
*Prerequisite: INTR 121 with a grade of "C" or better and acceptance in the interpreter training program and Corequisites: INTR 122 and INTR 130 and INTR 147 and INTR 145*  
The course will provide an in-depth analysis of classifiers in ASL through discussion and demonstration of the three different categories of classifiers in ASL: representative classifiers (noun and its action), descriptive classifiers (size-and-shape, extent, perimeter, pattern and texture), and instrumental classifiers (manipulative and handle). Students will learn to comprehend and produce classifiers from all three categories.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $400 to 500.

**INTR 130**  
**Survey of the Interpreting Profession (3 CR)**  
*Prerequisite: INTR 121 or FL 181 with a grade of "C" or higher and acceptance in the interpreter training program and Corequisite: INTR 122 and INTR 126 and INTR 147 and INTR 145 all with a grade of "C" or higher*  
This course provides an introduction to interpreting as an occupation. Students will come to understand interpersonal communication skills, professional ethics, parameters of responsibilities, community resources and legal ramifications as they relate to the interpreter. 3 hrs./wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 50.
INTR 131
Interpreting Preparation Skills (2 CR)
Prerequisite: INTR 130 with a grade of "C" or higher and acceptance into the interpreter training program and Corequisite: INTR 123 and INTR 135 and INTR 242 and INTR 248 all with a grade of "C" or higher

This course provides students with a foundation in the theory of interpretation. Students will explore the Colonos Model of interpreting and apply this model by first using pre-interpreting skills in isolation. Then students will progress from producing translations to interpreting consecutively. 4 hrs. integrated lecture-lab/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 50.

INTR 135
Intro to American Sign Language Linguistics (3 CR)
Prerequisite: INTR 122 or FL 270 with a grade of "C" or higher and Corequisite: for students accepted in the interpreter training program enroll in: INTR 123 and INTR 242 and INTR 131 and INTR 248 all with a grade of "C" or higher

This course introduces students to the structural and grammatical principles of ASL. Students will explore concepts of equivalency between English and ASL 3 hrs. lecture/wk. The daytime sections are open only to students in the interpreter training program.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 50.

INTR 145
Introduction to the Deaf Community (3 CR)
Prerequisite: Acceptance to interpreter training program and Prerequisite or Corequisite: ANTH 125 and SPD 120 for Interpreter Training Program and Corequisite for Interpreter Training Prog: INTR 122 and INTR 126 and INTR 130 and INTR 147 all with a grade of "C" or higher Note: Prerequisite or corequisite of INTR 120 or FL 180 required for students in the American Sign Language Studies Certificate

This course will prepare students to develop and recognize the diversity within the Deaf Community, significant events and figures in Deaf History, and basic norms and values of Deaf Culture. Students will examine and compare Deaf Culture and hearing culture in America. The daytime sections are open only to students in the interpreter training program. 3 hrs./wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 50.

INTR 147
Fingerspelling I (2 CR)
Prerequisite: INTR 121 or FL 181 with a grade of "C" or higher and Corequisites: For students accepted in the interpreter training program, enroll in: INTR 122 and INTR 126 and INTR 130 and INTR 145 all with a grade of "C" or higher

Students will work on developing beginning expressive and receptive fingerspelling skills based on word recognition principles. 1 hr, lecture, 2 hrs. lab/wk. The daytime sections are open only to students in the interpreter training program.

INTR 150
American Sign Language Literature (3 CR)
Prerequisite: INTR 122 with a grade of "C" or higher

This course will provide introduction, discussion, and demonstration of literature in American Sign Language (ASL). The literature involves ASL Poetry, ASL Storytelling/Narratives, Deaf Humor, Deaf Folklore and other genres that have been passed on from one generation to another by culturally deaf people. Students will receive, analyze and retell a variety of ASL literature. 3 hrs.
INTR 181
Interpreting Practicum I (1 CR)
Prerequisite: INTR 130 with a grade of "C" or higher and Corequisite: INTR 145 and INTR 223 and INTR 226 and INTR 250 all with a grade of "C" or higher
Students will observe skilled interpreters in various interpreting situations in a variety of settings during the semester. 2 hrs. lab, field work/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 50.

INTR 223
Advanced American Sign Language (3 CR)
Prerequisite: INTR 123 or FL 271 with a grade of "C" or higher and Corequisite: INTR 250 and INTR 226 and INTR 181 all with a grade of "C" or better
This course is a continuation of Intermediate American Sign Language II. Students will learn about culturally significant topics related to the Deaf community, more complex ASL grammatical features and conversational skill development. Comprehension skills and linguistic features of ASL will be taught to a variety of contexts in simulated, typical interaction. Students will have opportunities to utilize what they learn about advanced ASL through class activities, dialogues, short stories, general conversations and class discussions. Sign comprehension and production skills will be emphasized. This course meets for six hours of internship/week.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 25.

INTR 226
Specialized and Technical Vocabulary (2 CR)
Prerequisite: INTR 123 with a grade of "C" or higher and Corequisite: INTR 181 and INTR 250 and INTR 223 all with a grade of "C" or higher
This course will expand the interpreter training students' vocabulary related to specialized and technical contexts. Students will discuss vocabulary use in a variety of contexts to include socially restricted terms and phrases Deaf people use; colloquialisms; varying registers; terminology in medical, mental health, religion, sex, drugs; and strong language in ASL. Students' development of comprehension and production skills in common formal and informal settings will be emphasized. Students will also discuss Signing Exact English (SEE II) and the differences from American Sign Language (ASL). 3 hrs. integrated lecture-lab/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 50.

INTR 242
Fingerspelling II (2 CR)
Prerequisite: INTR 142 with a grade of "C" or higher and Co-requisite: INTR 123 and INTR 131 and INTR 135 and INTR 248 all with a grade of "C" or higher
This course focuses on continued development of expressive and receptive fingerspelling skills based on word and phrase recognition and expression. 1 hr. lecture, 2 hrs. lab/wk.

INTR 248
Deaf Community Ethnography (3 CR)
Prerequisite: INTR 145 with a grade of "C" or better Co-requisite: INTR 123 and INTR 131 and INTR 135 and INTR 242 all with grade of "C" or better
This advanced course will provide students the opportunity to explore power and oppression issues experienced by d/Deaf people. Specific attention will be given to society's views of the d/Deaf community and the influence of various media on
these views. 3 hrs. lecture/wk.  
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $80 to 100.

**INTR 250**  
Interpreting I (6 CR)  
*Prerequisite: INTR 131 with a grade of "C" or higher and Corequisite: INTR 181 and INTR 223 and INTR 226 all with a grade of "C" or higher*  
In this introduction to interpreting principles, emphasis will be on English-to-ASL and ASL-to-English skills. Students will participate in sequential drills and apply these skills in class. 2 hrs. lecture, 8 hrs. lab/wk.  
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 50.

**INTR 251**  
Interpreting II (2 CR)  
*Prerequisite: INTR 250 with a grade of "C" or higher and Corequisite: INTR 262 and INTR 282 and AAC 150 all with a grade of "C" or higher*  
A description is not available for this course.  
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 50.

**INTR 262**  
Seminar on Interpreting (3 CR)  
*Prerequisite: INTR 250 with a grade of "C" or higher and Corequisite: INTR 251 and INTR 282 and AAC 150 all with a grade of "C" or higher*  
This course provides students with knowledge of stress management as applied to both the physical demands and mental conditions of sign language interpreting. Students will learn and apply decision-making techniques in regard to the Interpreter (RID) Code of Ethics. Additionally, the course provides students with knowledge of career development theory, career decision-making and the job-search process. 3 hrs. lecture/wk.

**INTR 282**  
Interpreting Practicum II (6 CR)  
*Prerequisite: INTR 181 with a grade of "C" or higher and Corequisite: INTR 251 and INTR 262 and AAC 150 all with a grade of "C" or higher*  
This course provides students with an opportunity to observe and interpret in an off-site setting with the supervision of an experienced interpreter. Students will actively engage in discussions relating to the difficulties and rewards of working in a realistic interpreting environment. The fieldwork totals 270 hours a semester.  
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 50.

### Journalism/Media Communication (JOUR)

**JOUR 120**  
Mass Media and Society (3 CR)  
Via books, newspapers, magazines, recordings, movies, radio, television, new technologies and the related areas of advertising and public relations, each of us is exposed to and affected by the mass media on a daily basis. This course will increase student awareness of the various media and help them understand the influence of the media on their daily activities, beliefs, decisions and goals. As a result, the student will become a more astute critic of the messages delivered by the mass media. 3 hrs./wk.
JOUR 122  
**Reporting for the Media (3 CR)**  
Reporting for the Media is structured for students interested in the basics of writing and reporting. Writing for print, broadcast, and online media are included. Information gathering and story writing are conducted under strict deadlines to prepare students for a professional position. Basic news writing and style principles will be gained by writing stories for JCCC student media, including the student newspaper, The Campus Ledger. 3 hrs./wk.

JOUR 125  
**Fundamentals of Advertising (3 CR)**  
Fundamentals of Advertising introduces the student to the contemporary advertising process. Research, planning, creativity, production, media placement and sales are discussed, along with individual mediums and their forms, functions and roles in society. Major emphasis is placed on the areas of advertising/marketing research, planning and creativity, including integrated marketing communications. 3 hrs./wk.

JOUR 127  
**Introduction to Broadcasting (3 CR)**  
This course serves as a general introduction to students interested in pursuing knowledge of or a career in radio and television broadcasting. The course includes a study of the industry’s development, its form and function, job responsibilities, basic production techniques, audience measurement, FCC regulations and ethics. Class time will include discussion of current trends and issues in the field, with students developing an understanding of broadcast media. Productions in the college’s audio booth and TV facilities offer an opportunity to experience the field of broadcasting. These experiences will allow students to evaluate broadcasting as a possible career choice. 3 hrs./wk.

JOUR 130  
**Principles of Public Relations (3 CR)**  
This course is intended to provide the student with an overview of the history, principles and real-life functions of public relations. Public relations is a rapidly growing field. The ability to work with the public is essential in business, education, health care and numerous other fields. This course is designed to give students the background to develop their PR skills, both verbally and in writing. 3 hrs./wk.

JOUR 202  
**Broadcast Performance (3 CR)**  
Students will learn how to improve their speaking voices and body language as well as the techniques necessary to effectively communicate messages through basic announcing skills. Interviewing, radio and television news, and commercial announcing are some of the topics covered in this course, which will allow students to polish their skills through performances in the college’s television studio and audio booth. 3 hrs./wk.

**Associated Costs:** In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 15.

JOUR 222  
**Advanced Reporting (3 CR)**  
**Prerequisite: JOUR 122**  
This is an advanced newsgathering and reporting course designed to sharpen the discernment, critical thinking and writing skills of student journalists. Specific English language rules and principles plus AP news writing style will be
emphasized in the production of incisive, well-defined news stories, features, profiles, editorials and personal columns. Professional writings in various media will be examined and critiqued, and class members will have the opportunity to participate in hands-on editing and layout. Students will gain additional experience by preparing for and participating in news conferences and events, as well as interacting with area media writers. 3 hrs./wk.

JOUR 225
Promotional Writing (3 CR)
Prerequisite: JOUR 125 or JOUR 130
Students will study the elements of layout and copywriting for promotional purposes, with emphasis on advertising, direct mail and public relations writing. 3 hrs./wk.

JOUR 227
Basic Television Production (3 CR)
This course provides students with the fundamentals of television production. The goal is to teach students basic video techniques. Topics covered include technology, lighting, camera operations, audio and editing. Students will gain hands-on experience in the college's Television Services studio. 3 hrs. lecture/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

JOUR 242
Advanced Broadcast Performance: TV (3 CR)
Prerequisite: JOUR 202
Students will produce news, feature, sports, and interview programming for airing on the college's cable station. The development of news packages, event reporting, breaking news, and extended coverage of news events will be included. Learning composure, focus, and detail in a team information-gathering operation will be emphasized. 3 hrs. lecture/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 15.

JOUR 271
Journalism Internship (3 CR)
Prerequisite: Instructor approval; completion of six credit hours in journalism/media communications at JCCC or another college with a minimum grade of "C" in those 6 hours.
A journalism/media internship allows students to gain work experience at an approved training center under staff supervision. Emphasis is on learning new skills related to a particular program or department at a media facility. Students may learn the application of writing techniques needed to produce and broadcast news, and produce advertising or public relations promotional copy. On-the-job training involves approximately 15-20 hrs./wk. by arrangement.

Land Surveying (KSRV)

KSRV 135
Elementary Surveying (3 CR)
Prerequisite: MCC - MATH 104
Introduction to the care and use of optical surveying instruments: Transits, Total Stations and Auto Levels. Use of cloth tapes, steel tapes and electronic distance machines. Reduction of slope measurements to horizontal and vertical components. Measurement, field data reduction and adjustment of a closed
traverse. Horizontal and Vertical Curves, earthwork, and coordinates. Extensive
field work, field notes and electronic data collection. Introduction to systematic and
random errors. MCC-Longview Community College, 500 SW Longview Road,
Lee’s Summit, Missouri 64081. Call 816-672-2510

KSRV 137

Subdivision Planning and Layout (3 CR)
Prerequisite: ENGR 180 MCC’s and DRAF 152

Physical elements of designing land subdivisions including traffic circulation,
sewer and drainage systems, soils and earthworks, grading considerations,
erosion control, lot and block arrangement, topography and existing land use
factors, geometric analysis, laws and codes affecting land subdivisions,
environmental considerations, site analysis procedures. 3 hrs. lecture/wk.
Courses taught at MCC-Longview Community College, 500 SW Longview Rd.,
Lee’s Summit, MO. Students should contact the Longview coordinator of land
surveying about the class meeting times and beginning and ending dates of
classes. Call 816-672-2510.

KSRV 152

Engineering Graphics & CADD I (5 CR)
Prerequisite: MATH test

Introduction to engineering communications and basic computer-aided
drafting/design (CADD). Emphasis on sketching, projections, drawing layout,
drafting standards and conventions, dimensioning, sectioning, and basic design
principles. Foundation for computer aided drafting/design including file
management, basic drawing commands, basic editing commands, layering
conventions, blocks, dimensioning, polylines, sectioning, and drawing layout and
plotting. 3 hrs. lecture, 4 hrs lab.

KSRV 235

Advanced Surveying (3 CR)
Prerequisite: ENGR 180

This course is a continuation of surveying skills introduced in ENGR 180 with an
emphasis on advanced techniques beyond plane surveying such as geodetic
control networks, practical astronomy, state plane coordinates, photogrammetry
and the US Public Land Surveys System. 3 hrs. lecture/wk. Course taught at
MCC-Longview Community College, 500 SW Longview Rd., Lee’s Summit, MO.
Students should contact the Longview coordinator of land surveying about the
class meeting times and beginning and ending dates of classes. Call
816-672-2510.

KSRV 236

Legal Aspects of Surveying (3 CR)
Prerequisite: ENGR 180

A study of the legal principles of land boundaries, section corners, area;
interpretations of land descriptions; identification of land parcels; legal principles
of boundary locations; and the United States land survey system. 3 hrs.
lecture/wk. Course taught at MCC-Longview Community College, 500 SW
Longview Rd., Lee’s Summit, MO. Students should contact the Longview
coordinator of land surveying about the class meeting times and beginning and
ending dates of classes. Call 816-672-2510.

KSRV 237

Land Surveying (3 CR)
Prerequisite: ENGR 180

A study of the land survey practice of retracement and creation of new parcels as
it relates to the lot survey, the sectional survey, and the water boundary survey.
Further, standard business practice will be discussed. 3 hrs. lecture/wk. Course
taught at MCC-Longview Community College, 500 SW Longview Rd., Lee's Summit, MO. Students should contact the Longview coordinator of land surveying about the class meeting times and beginning and ending dates of classes. Call 816-672-2510.

KSRV 240
Analysis of Survey Measurements I (3 CR)
Prerequisite: KSRV 135
Introduction to the nature of surveying instruments and their use. Analysis of the effect that instruments and observers have on measurements. Explanation of random error propagation and estimates of uncertainty. Introduction to adjustment of data. MCC-Longview Community College, 500 SW Longview Road, Lee's Summit, Missouri 64081. Call 816-672-2510

KSRV 242
Analysis of Survey Measurements II (3 CR)
Prerequisite: KSRV 240
This course is a continuation of analytical skills introduced in KSRV 240, Analysis of Survey Measurements I as they apply to adjustments of horizontal, GPS and level networks. Emphasis will also be placed on coordinate transformation, advanced curve fitting and blunder detection in survey networks. MCC-Longview Community College, 500 SW Longview Road, Lee's Summit, Missouri 64081. Call 816-672-2510

Leadership (LEAD)

LEAD 120
Leadership Development Seminar (3 CR)
This seminar course is designed for individuals who are interested in exploring the concepts of leadership using discussion, film, exercises and works of classic literature. The course will lead to the development of a personal leadership philosophy. 3 hrs./wk.

Learning Communities (LCOM)

LCOM 125
Comp II/College Algebra - You MUST enroll in both 84126-MATH 171 400 and 83394-ENGL 122 402 (6 CR)
Prerequisite: ENGL 121 and MATH 116 with a grade of "C" or better or appropriate score on the math assessment test - Note: College Algebra not available to students with a credit in MATH 173.
Students earn 6 transferable credit hours in general education requirements (3 for ENGL 122, Composition II, and 3 for MATH 171, College Algebra) WARM: Writing and Reading Mathematics is a learning community in which College Algebra and Composition II are integrated. Because most subjects are learned better when the learners write about them in their own language, in WARM, students write about math instead of taking tests. For instance, the first major paper involves defining a function and then describing and showing a number of ways of transforming the graph of the function. Students also read articles and book excerpts concerning language and math acquisition and innate math and language ability. In addition to their major papers on math topics, students write summaries, evaluations and syntheses of the readings and a research paper on a math-related topic.

LCOM 126
Composition II/U.S. Hist to 1877 - You MUST enroll in both 12915-ENGL 122 037 and 13374-HIST 140 007 (6 CR)

Prerequisite: ENGL 106 or appropriate placement score

Students earn 6 transferable credit hours in general education requirements (3 for ENGL 122, Composition II, and 3 for HIST 140, U.S. History to 1877). The philosophy behind joining these two courses together is to encourage students to think critically and write effectively with American history providing unifying themes. Writing instruction works best when students can focus sustained attention on one particular discipline. Writing in college and the workplace demands the ability to synthesize often conflicting information gathered from various sources. The discipline of American history provides ample opportunities for students to develop skills in composing various types of prose.

LCOM 127
Comp II/US Hist Since 1877 - You MUST enroll in both 85180 Engl 122 023 AND 85897 Hist 141 006 (6 CR)

Prerequisite: ENGL 106 or appropriate test score

Students earn 6 transferable credit hours in general education requirements (3 for ENGL 122, Composition II, and 3 for HIST 141, U.S. History Since 1877). The philosophy behind joining these two courses together is to encourage students to think critically and write effectively with American history providing unifying themes. Writing instruction works best when students can focus sustained attention on one particular discipline. Writing in college and the workplace demands the ability to synthesize often conflicting information gathered from various sources. The discipline of American history provides ample opportunities for students to develop skills in composing various types of prose.

LCOM 128
Art History: Renaissance to Modern/Furniture and Ornamentation: Renaissance to Modern (6 CR)

Students earn 6 credit hours (3 for ART 182, Art History: Renaissance/Modern, and 3 for ITMD 231, History of Furniture & Ornamentation/Renaissance-20th Century). NOTE: This learning community will meet on campus on Tuesdays and the Nelson-Atkins Museum of Art on Thursdays. In a traditional curriculum the history of the visual arts and architecture and the history of furniture and ornamentation are taught separately. In this learning community the two courses will be thoroughly integrated, thus providing students with a more accurate and meaningful way to learn. The class will meet once a week on the JCCC campus and once a week at the Nelson-Atkins Museum of Art in Kansas City, MO. Students, therefore will have the unique opportunity to study paintings, sculpture, furniture and the decorative arts from the Renaissance to the present using historically significant objects and art works. The class will involve such activities as oral presentations about art works in the museum and researching and writing about furniture and ornamentation. Students should have reliable transportation for the weekly drive to the Nelson-Atkins and should NOT enroll in an 11 a.m.-12:15 p.m. class.

LCOM 132
Composition II/Literature of Science Fiction (6 CR)

Prerequisite: ENGL 121

Students earn 6 credit hours (3 for ENGL 122, Composition II, and 3 for ENGL 243, Literature of Science Fiction). Students in this learning community will integrate their work in Composition II with their work in Literature of Science Fiction. Science fiction literature will be read and evaluated and will act as the subject matter for the writing inherent in the Composition II course objectives: we'll read and summarize science fiction stories and criticism; we'll critique and synthesize definitions of science fiction, its development, and its key concepts; and we'll explore the translation of text to screen.
**LCOM 135**  
Social Issues: Appomattox-9/11 - You MUST enroll in both 11788 Soc 122 002 AND 14980 Hist 141 008 (6 CR)  
Students earn 6 transferable credit hours in general education requirements (3 for SOC 122, Introduction to Sociology, and 3 for HIST 141, U.S. History Since 1877). Come explore American society in a learning community combining U.S. History since 1865 with Introduction to Sociology. Examine historical events with sociological eyes and understand how we created this society in which we live. We'll cover everything from A to Z: Appomattox to Z-Boys, Economics to Ecology, Family to Feminism, Media to the Moral Majority, Religions to Race, Social Class to Sexuality, Technology to Terrorism and Wealth to World War II.

**LCOM 140**  
Selling Interior Products - You MUST enroll in both 12766-ITMD 132 001 and 10330-MKT 134 002 (6 CR)  
Students earn 6 credit hours (3 for ITMD 132, Interior Products, and 3 for MKT 134, Professional Selling). In this learning community, students will learn in-depth product knowledge inclusive of specific features and benefits for numerous interior products. Additionally, students will learn how to utilize professional selling skills to sell interior products. Students will practice through role playing the steps of professional selling to illustrate the application of skill techniques in each step. 6 hrs. lecture/wk.

**LCOM 142**  
Digital Literacies - You MUST enroll in Engl 121 044, Cweb 105 700, Cweb 115 700 & Cweb 130 702 (6 CR)  
Prerequisite: ENGL 106 or appropriate test score. Prerequisite for CWEB 105 is CWEB 101; Prerequisite for CWEB 115 is CWEB 105; Prerequisite for CWEB 130 is CPCA 161 or CWEB 105 or CWEB 106  
Students earn 6 credit hours (3 credit hours for ENGL 121, Composition I, 1 credit hour for CWEB 105, Intro to Web Pages: Dreamweaver; 1 credit hour for CWEB 115, Intermediate Web Pages: Dreamweaver and 1 credit hour for CWEB 130, Intro to Flash) (The CWEB courses would be taken in sequence throughout the semester.) This course combines the basic thinking skills and core competencies needed to thrive in the modern interactive environment. Students will enroll in ENGL 121 and CWEB 105, 115 and 130. Students will learn to transform "technobabble" into a language they can speak and understand. The course unlocks the power and potential of the Internet through a four-step inquiry process of awareness, analysis, reflection and action. This course helps students acquire an empowering set of "navigational" skills which include the ability to: 1) access information from a variety of sources; 2) analyze and explore how messages are "constructed" whether print, verbal, visual or multi-media; 3) evaluate media's explicit and implicit messages against one's own ethical, moral and/or democratic principles and 4) express or create their own messages using a variety of media tools.

**LCOM 145**  
The Origins of Human Nature - You MUST enroll in both 14985 Soc 122 022 & 14984 Psyc 130 032 (6 CR)  
Students earn 6 credit hours (3 for SOC 122 Intro to Sociology and 3 for PSYC 130 Intro to Psychology). Is it nature? Is it nurture? Are we who we are because of our genes or our environment, or both? Experience this Learning Community to learn what sociology and psychology have to say about human nature.

**LCOM 147**  
Foundations of Modern Thought - You MUST enroll in both 10656-HIST 126 003 and 10599-SOC 122 017 (6 CR)  
Students can earn 6 transferable credit hours in general education requirements
Modern social issues and structures have their origins in classic thought and writings. This learning community connects the heritage of Western thought to our contemporary lives. Search for the connections to democratic thought, social inequalities, the creation and dissolution of community, and other foundational ideas of modern society.

**LCOM 149**

*Interpersonal Commun/Navigation - You MUST enroll in both 13774-HPER 102 001 and 13772-SPD 120 014 (4 CR)*

Students earn 4 transferable credit hours in general education requirements (3 for SPD 120, Interpersonal Communication, and 1 for HPER 102, Navigation 102). This 4-credit hour course combines principles of effective communication with helping students experience a successful transition to college life. Students will learn practical life management skills and how to enhance their academic skills, while navigating through the fundamental elements of the communication process. Students in this learning community class will learn principles of communication theory, terminology of human communication, and will apply communication skills in everyday life. Students will have an opportunity to learn about self, one’s self-concept, and how we relate to our world through healthy interpersonal relationships. Students will participate in self-awareness and career exploration activities that involve campus and community resources. Through decision-making activities, conflict management role playing perception awareness drills, and mastering one’s listening skills, students will view and appreciate communication in a new and improved way. Emphasis will be on interactive and participatory activities, that include journal writing, small and large group discussion, quizzes and self-assessment.

**LCOM 151**

*America & Global Terrorism - You MUST enroll in both 82970-Admj 224 002 and 83199-Pols 124 351 (6 CR)*

Students earn 6-credit hours (3 credit hours for POLS 124 American National Government and 3 for ADMJ 224 Introduction to Terrorism). This course gives an overall view of terrorism and the impact on the American political system. This is a Coordinated Studies Learning Community that includes three full hours of on-campus instruction plus online work. The American government course is a JCCC online offering of many years.

**LCOM 153**

*Russian Literature/Russian Culture-You MUST enroll in both 13305-ENGL 130 006 and 11619-HUM 137 001 (6 CR)*

*Prerequisite: ENGL 121*

Students earn 6-credit hours (3 credit hours for ENGL 130, Introduction to Literature and 3 credit hours for HUM 137, Introduction to Russian Culture). This course is an interdisciplinary survey of Russian culture and literature from the ninth century to the present day. Students examine representative examples of Russian fiction, poetry, drama, art, architecture, music, and dance within their cultural, historical and political context. Russian poetry, drama, and fiction do not stand in isolation from the culture that produced them and are most fruitfully studied and understood within that context.

**LCOM 155**

*Intro to Algebra/Learn Strat Math - You MUST enroll in both 10428-MATH 115 013 and 13791-LS 174 002 (4 CR)*

*Prerequisite: MATH 111 with a minimum grade of "C" or appropriate score on the math assessment test*

Students earn 4-credit hours (3 credit hours for MATH 115, Intro to Algebra and 1 credit hour for LS 174, Learning Strategy for MATH). This course facilitates...
mathematics learning by integrating thinking skills, study skills and mathematical content. The student will acquire life-long learning skills along with the basic skills of algebra. Students in this learning community class will learn problem solving, test taking and cognitive skills. They will apply these skills to their math textbook, homework assignments, class discussions and lectures. This course will also address emotions and attitudes which may block math learning, and will offer strategies and techniques designed to overcome these feelings. MATH 115 may fulfill some certificate requirements, but will not fulfill degree requirements.

LCOM 157
Fund of Math/Learning Strat for Math-You MUST enroll in both 10415-MATH 111 004 and 13790-LS 174 001 (4 CR)
Prerequisite: Appropriate score on the math assessment test
Students earn 4-credit hours (3 credit hours for MATH 111 Fundamentals of Math and 1 credit hour for LS 174 Learning Strategies for Math). This course facilitates learning by integrating thinking skills, study skills and mathematical content. The student will acquire life-long learning skills along with fundamental math procedures and concepts. Students in this learning community class will learn problem solving, test taking and cognitive skills. They will apply these skills to their math textbook, homework assignments, class discussions and lectures. This course will also address emotions and attitudes which may block math learning, and will offer strategies and techniques designed to overcome these feelings. Active learning will be encouraged through activities such as pair and share, journal writing, group discussions, self-assessments and collaborative learning.

LCOM 159
Intimate Relationships (6 CR)
Students earn 6-credit hours (3-credit hours for PSYC 130, Introduction to Psychology and 3-credit hours for SOC 131, Marriage and the Family). Does media imitate life or does life imitate media? Experience this learning community that combines Psychology and Marriage and the Family. Explore intimate relationships by applying sociological and psychological principles to episodes of classic shows such as "The Brady Bunch," and "Leave It to Beaver," as well as "Sex and the City," "Big Love," "Brokeback Mountain," and other popular shows. Find the keys to understanding the intimacies of contemporary relationships in this spicy course.

LCOM 161
Environmental Science/Comp II - You MUST enroll in both 13747-ENGL 122 061 and 10402-BIOL 130 008 (6 CR)
Prerequisite: ENGL 121
Students earn 6-credit hours (3 for ENGL 122, Composition II and 3 for BIOL 130, Environmental Science). Most Americans are only dimly aware of their immediate environment, and they know even less about how that place fits into, impacts, and is impacted by the global environment. Through reading, writing, and discussion, this course will raise students’ awareness of where they are and help them become more conscious of their own place in and responsibility to the earth’s ecology. This is a Coordinated Studies Learning Community that includes six full hours of on-campus instruction.

Learning Strategies (LS)

LS 174
Learning Strategies for Math (1 CR)
Corequisite: Concurrent enrollment in a math course
This course teaches thinking and study skills specifically geared toward the
learning of math. Students practice these skills on their math textbooks and homework assignments as well as in their math class discussions and lectures. This course also addresses feelings and attitudes that may block math learning and offers strategies and techniques designed to overcome these feelings. 1 hr./wk. Learning Strategies courses offer students opportunities to acquire the thinking and learning skills needed to be a successful learner, including reading textbooks, taking notes, organizing information and preparing for tests. This course may be offered as a Learning Communities (LCOM) section, see current credit schedule for LCOM details.

**LS 176**  
**Strategic Learning System** (1 CR)  
*Corequisite: Concurrent enrollment in a college lecture course*

In this course, students will learn a series of strategies for processing information from textbooks and lectures and strategies for studying for and taking tests. As the strategies are introduced, students apply them to the content of courses in which they are concurrently enrolled. Upon successful completion of the course, students will have developed a system for learning that can be adapted for use in any learning situation. 1 hr./wk. Learning Strategies courses offer students opportunities to acquire the thinking and learning skills needed to be a successful learner, including reading textbooks, taking notes, organizing information and preparing for tests.

**LS 178**  
**Memory Strategies** (1 CR)  
*Corequisite: Concurrent enrollment in another college course*

In this course, students learn a series of techniques to help them improve their retention and recall of information needed for success in college courses. These techniques provide a systematic approach to learning and remembering. Students immediately use the techniques to learn information from their other college courses. 1 hr./wk. Learning Strategies courses offer students opportunities to acquire the thinking and learning skills needed to be a successful learner, including reading textbooks, taking notes, organizing information and preparing for tests.

**LS 186**  
**Exam Strategies** (1 CR)  
*Corequisite: Concurrent enrollment in at least one other college course in which exams are taken*

This course offers students an opportunity to explore their own learning styles and to develop appropriate strategies for improving test performance through improved learning procedures. Emphasis will be on practical application of the learned strategies to courses in which the students are concurrently enrolled. 1 hr./wk. Learning Strategies courses offer students opportunities to acquire the thinking and learning skills needed to be a successful learner, including reading textbooks, taking notes, organizing information and preparing for tests.

**LS 200**  
**College Learning Methods** (3 CR)  
*Corequisite: Concurrent enrollment in at least one academic college course*

This course provides students with opportunities to develop skills and habits that will help them establish and maintain effective learning systems. Students first learn and practice the learning methods in class and then apply these methods to appropriate situations in their other college coursework. The methods, which are based on valid learning and thinking principles, will help students meet the higher-level demands of the subjects encountered in college courses. 3 hrs./wk. Learning Strategies courses offer students opportunities to acquire the thinking and learning skills needed to be a successful learner, including reading textbooks,
taking notes, organizing information and preparing for tests.

Legal Studies (LAW)

LAW 121
Introduction to Law (3 CR)
Upon successful completion of this course, the student should be able to explain the major substantive and procedural aspects of law. This course provides an overview of the legal system and knowledge of specific legal topics, including torts, criminal law, contracts, family law, business law, real estate and probate. This course is a requirement for applying to the paralegal program and for completion of the legal nurse consultant program. 3 hrs. lecture/wk. LAW 121 and BUS 122 are the same course; do not enroll in both.

LAW 123
Paralegal Professional Studies (1 CR)
Upon successful completion of this course, the student should be able to explain the legal assistant profession. Topics will include paralegal licensing, certification, education, employment and professional ethics. The course is required for students seeking admission to the paralegal program. 1 hr. lecture/wk.

LAW 131
Legal Research (3 CR)
Prerequisite or corequisite: Legal nurse consultant students - LAW 225 and LAW 121 or BUS 122 Paralegal program students - Admission to the program or division administrator approval
This course will familiarize the student with library organization and the types of informational resources used for performing legal research. The student will become acquainted with the major characteristics of these resources and usage techniques and will learn a systematic method for researching legal issues. Numerous opportunities will be provided for skill development in the use of these resources. 3 hrs. lecture/wk.

LAW 132
Civil Litigation (3 CR)
Prerequisite: Admission to the paralegal program or division administrator approval. Legal nurse consultant students - LAW 225 and LAW 121
This course will acquaint the student with the major characteristics of the civil litigation process. Students will become familiar with the various types of procedural rules regulating the civil litigation process and their application. Emphasis will be on the role of the legal assistant in a civil litigation practice and will include the drafting of pleadings. 3 hrs. lecture/wk.

LAW 140
Alternative Dispute Resolution (3 CR)
Prerequisites: Legal nurse consultant students and paralegal program students - LAW 132 and selective admission approval
This course examines the various methods used by our legal system for dispute resolution and the role of the legal assistant in those methods. Upon successful completion of this course, the students should be able to explore the nature of conflict and the principles of negotiation and review the traditional litigation system. The course will concentrate on the major alternatives to litigation, including mediation and arbitration. 3 hrs. lecture/wk.
LAW 142
Torts (3 CR)
Prerequisites: Legal nurse consultant students and paralegal program students - LAW 132 and selective admission approval
Upon successful completion of this course, the student should be able to explain the major principles of tort law and personal injury litigation. The student should be able to discuss and compare the elements of negligence torts, intentional torts and strict liability torts, as well as the types of damages available and defenses to each of these torts. 3 hrs. lecture/wk.

LAW 148
Criminal Litigation (3 CR)
Prerequisites: Legal nurse consultant students and paralegal program students - LAW 132
Upon successful completion of this course, the student should be able to explain the objectives, substantive principles and procedural rules of the criminal process. The student will be able to explain the role of the paralegal in criminal litigation practice and draft documents used in the criminal litigation process. 3 hrs. lecture/wk.

LAW 152
Real Estate Law (3 CR)
Prerequisite: Paralegal program students - Admission to the paralegal program or division administrator approval. Legal nurse consultant students - LAW 225 and LAW 121
Upon successful completion of this course, the student should be able to describe common types of real estate transactions and conveyances. The preparation of legal instruments, namely deeds, contracts, leases and mortgages will be studied. 3 hrs. lecture/wk.

LAW 162
Family Law (3 CR)
Prerequisite: Paralegal program students - admission to paralegal program or assistant dean's approval. Legal nurse consultant students - LAW 225 and LAW 121
Upon successful completion of this course, the student should be able to describe the substantive and procedural principles of family law, including issues related to adoption, divorce, custody, support and visitation. The student will also be able to draft pleadings including petition for divorce, petition for adoption, decrees, settlement agreements and motions for modification. 3 hrs. lecture/wk.

LAW 171
Law Office Management (3 CR)
Prerequisite: Paralegal program students - admission to the paralegal program or division administrator approval. Legal nurse consultant students - LAW 225 and LAW 121
This course will acquaint the student with the general principles of law office management and will emphasize the unique characteristics of organizing and managing the law office or legal department. Projects will provide students with opportunities for practical application of law office management concepts. 3 hrs. lecture/wk.

LAW 173
Judicial Academy (1 CR)
Prerequisite: Admission to the paralegal program. Legal nurse consultant students - LAW 225 and LAW 121

Upon successful completion of this course, the students should possess an in-depth understanding of the trial courts of Kansas. In order to achieve this goal, students will learn the main components of the Johnson County District Court, including discussion of the court structure, judicial qualifications, jury service, the criminal justice system, the juvenile court system and family matters. 1 hr. lecture/wk.

LAW 205
Legal Writing (3 CR)
Paralegal prerequisite: LAW 131 or division administrator approval. Legal nurse consultant prerequisite: LAW 131 or division administrator approval

Upon successful completion of this course, the student should be able to research complex legal problems, communicate the results of this research and other law-related information clearly and effectively and analyze legal problems using the skills of logic and reasoning. 3 hrs. lecture/wk.

LAW 212
Business Organizations (3 CR)
Prerequisite: Paralegal program students - admission to the paralegal program or division administrator approval. Legal nurse consultant students - LAW 225 and LAW 121

Upon successful completion of this course, the student should be able to describe the various forms of business ownership, including corporations, partnerships and sole proprietorships. The emphasis in the course is on the role of the legal assistant in a business law practice and on the preparation of related documents. 3 hrs. lecture/wk.

LAW 220
Computer-Assisted Legal Research (2 CR)
Prerequisites: Legal nurse consultant students - LAW 131, Paralegal program students - LAW 131

Upon successful completion of this course, the student should be able to access general and legal resources on the Internet and conduct electronic legal research using online and CD-ROM databases.

LAW 223
Computer Applications in the Law Office (3 CR)
Prerequisites: Paralegal program students - admission to the paralegal program and either CIS 124 or CPCA 128 or three hours of CPCA 108 and CPCA 110 and CPCA 114

Upon successful completion of this course, the student should be able to evaluate and use legal software to perform customary law office procedures including computer litigation support, drafting and editing of specific legal documents, document and file management, time-keeping and billing, docket control, and forms generation. 3 hrs. lecture/wk.

LAW 225
Legal Nurse Consultant Profession (1 CR)
Prerequisite: Admission to the legal nurse consultant program or assistant dean's approval

In this course, students will examine the functions of legal nurse consultants and available career opportunities, including relevant issues regarding employment
and independent contracting. 1 hr. lecture/wk.

**LAW 241**  
**Wills, Trusts and Probate Administration (3 CR)**

*Prerequisite:* Paralegal program students -- admission to the paralegal program or division administrator approval. Legal nurse consultant students -- LAW 225 and LAW 121

Upon successful completion of this course, the student should be able to draft a will with testamentary powers. The use of trusts, probate procedures, techniques for fact gathering and mastery of estate tax principles are emphasized in this course. 3 hrs. lecture/wk.

**LAW 245**  
**Elder Law (3 CR)**

*Prerequisite:* Paralegal program students - admission to the paralegal program or division administrator approval. Legal nurse consultant students - LAW 225 and LAW 121

Upon successful completion of this course, the student should be able to explain the legal aspects of aging. Topics include financial and estate planning, health care, personal planning and protection, taxation, housing and other legal matters affecting the elderly and people with special legal needs. 3 hrs. lecture/wk.

**LAW 247**  
**Intellectual Property Law (3 CR)**

*Prerequisite:* Paralegal program students - admission to the paralegal program or division administrator approval. Legal nurse consultant students - LAW 225 and LAW 121

In this course, students will learn the various forms of intellectual property. The emphasis in the course is on the functions of the paralegal in an intellectual law practice and on the preparation of related documents. 3 hrs. lecture/wk.

**LAW 250**  
**Medicolegal Research and Writing (3 CR)**

*Prerequisites:* Admission to the legal nurse consultant program and LAW 131

This course emphasizes the role of the legal nurse consultant in the preparation of, and contribution to, various documents used in the context of a medicolegal-related law practice. Topics include the use of medical and science-related information resources and the preparation of such documents as legal memoranda; legal-related correspondence; summaries of medical/science literature; summaries of health-care records; and summaries of health-care expenses and settlement brochures, particularly in the context of intentional torts, negligence, product liability, strict liability, and medical-malpractice litigation. 3 hrs. lecture/wk.

**LAW 260**  
**Personal Injury Law (3 CR)**

*Prerequisites:* Admission to the legal nurse consultant program and LAW 131

Upon successful completion of the course, the student should be able to explain and apply substantive and procedural principles of personal injury claims. The course will concentrate on the role of a legal nurse consultant in analyzing and applying legal theories and defenses relevant to intentional torts, negligence, product liability, strict liability and medical malpractice. 3 hrs. lecture/wk.
LAW 266
Employment Law (3 CR)
Prerequisite: Paralegal program students - admission to the paralegal program or division administrator approval. Legal nurse consultant students - LAW 121 and LAW 225
This course examines the relationship between employer and employee. Major federal and state employment laws will be examined, including Title VII of the Civil Rights Act of 1964, the Age Discrimination Employment Act and the Americans with Disabilities Act. 3 hrs. lecture/wk.

LAW 268
Bankruptcy (2 CR)
Prerequisite: Paralegal program students - admission to the paralegal program or division administrator approval. Legal nurse consultant students - LAW 121 or LAW 225
This course will familiarize the student with the purpose and application of the federal Bankruptcy Code. Topics will include Bankruptcy Court procedures and the preparation of bankruptcy forms and documents. Emphasis will be on the role of the legal assistant in a bankruptcy practice. 2 hrs. lecture/wk.

LAW 270
Administrative Law (3 CR)
Prerequisite: Admission to the legal nurse consultant program and LAW 225 and LAW 121 or admission to the paralegal program
Upon successful completion of the course, the student will be able to explain and apply substantive and procedural principles of administrative agencies. The course will concentrate on the basic principles of workers' compensation law, Social Security law, the Americans with Disabilities Act and the Occupational Safety Health Administration. 3 hrs. lecture/wk.

LAW 271
Legal Ethics, Interviewing and Investigation (3 CR)
Prerequisite paralegal: LAW 132 and Corequisite paralegal: LAW 205 Prerequisite legal nurse consultant: LAW 132 or LAW 260 Corequisite legal nurse consultant: LAW 205 or LAW 250
Upon successful completion of this course, the student should be able to explain ethical rules and standards governing the legal profession, interview clients and witnesses, and perform factual investigation pursuant to legal proceedings. The emphasis will be on recognition of ethical problems commonly encountered, as well as the development of interviewing and investigating skills. 3 hrs. lecture/wk.

LAW 275
Paralegal Internship I (1 CR)
Prerequisite: Admission to the paralegal program or assistant dean's approval
Upon successful completion of this course, the student should be able to explain how a law office or legal-related office operates from practical on-the-job experience. The student must work 120 hours a semester in law-related activities. By arrangement.

LAW 276
Paralegal Internship II (1 CR)
Prerequisite: Admission to the paralegal program or assistant dean's approval
Upon successful completion of this course, the student should be able to explain
how a law office or legal-related office operates from practical on-the-job experience. The student must work 120 hours a semester in law-related activities. By arrangement.

**Library (LIBR)**

**LIBR 125**  
**Introduction to Library Research** (1 CR)  
This course provides an introduction to the methods and technologies of library research. Included will be a study of the various information resources available for research and techniques for retrieving information from both print and electronic sources. The resources of Billington Library will be featured, although the emphasis will be on building information retrieval skills that will be useful in many settings.

**Marketing Management (MKT)**

**MKT 121**  
**Retail Management** (3 CR)  
Upon successful completion of this course, the student should be able to describe and analyze retail store organization and operation including customer markets, store location and design, human resource management, merchandise planning and control, and retail promotion. 3 hrs. lecture/wk.

**MKT 133**  
**Salesmanship** (3 CR)  
Upon successful completion of this course, the student should be able to define and contrast the three main areas of selling -- direct, wholesale and retail -- and explain the selling process. In addition, the student should be able to define the steps of selling and identify their appropriate application. The student should also be able to demonstrate selling skills through role play and presentations. Students who have received credit for MKT 134 may not receive credit for MKT 133. 3 hrs. lecture/wk.

**MKT 134**  
**Professional Selling** (3 CR)  
Upon successful completion of this course, the student should be able to describe the process of successful selling in the retail environment. In addition, the student should be able to define the steps of selling and identify appropriate application. The student should also be able to apply selling principles through role-play. Students who have received credit for MKT 133 may not receive credit for MKT 134. 3 hrs. lecture/wk. This course may be offered as a Learning Communities (LCOM) section, see current credit schedule for LCOM details.

**MKT 140**  
**Teleservice Communication Skills** (3 CR)  
Upon successful completion of this course, the student should be able to describe the process of successful communication in the teleservice field. In addition, the student should be able to define the principles of teleclient service and identify their appropriate application. The student should also be able to demonstrate effective telecommunication and client services skills through role-playing. Students who have received credit for MKT 133 or MKT 134 may not receive credit for MKT 140. 3 hrs. lecture/wk.
MKT 202
Consumer Behavior (3 CR)
Upon successful completion of this course, the student should be able to analyze the elements and influences that affect consumer behavior. In addition, the student should be able to apply the basic principles of consumer behavior and insight to the application of consumer-research findings used in the professional practice of marketing. 3 hrs. lecture/wk.

MKT 221
Sales Management (3 CR)
Prerequisite: MKT 134 or MKT 133
Upon successful completion of this course, the student should be able to identify skills necessary to manage a sales force and develop a plan for recruitment selection, training, motivation and evaluation. In addition, the student should be able to describe and analyze techniques to forecast and plan sales and audit results. 3 hrs. lecture/wk.

MKT 234
Services Marketing (3 CR)
Corequisite: BUS 230
Upon successful completion of this course, the student should be able to describe the functioning of a services economy. In addition, students should be able to describe and define the nature and characteristics of services and the way services are required to be marketed because of their intangible core. Additionally, students should be able to describe service quality, the foundation of services marketing and the success factors in services marketing. 3 hrs. lecture/wk.

MKT 240
Advertising and Promotion (3 CR)
In this course, the student will understand and recognize the importance of an integrated marketing communications planning model in order to coordinate all of the promotional mix elements for today’s businesses. Topics of study include advertising, direct marketing, sales promotion, public relations and interactive media. The course integrates theory with planning, management and strategy. Upon completion, the student will be able to develop an effective marketing communications program. 3 hrs. lecture/wk.

MKT 284
Marketing and Management Internship I (1 CR)
Upon successful completion of this course, the student should be able to apply classroom knowledge to an actual work situation. This course offers work experience under instructional supervision in an approved training situation designed to provide practical experience in marketing and management. A minimum of 15 hrs./wk. on-the-job training is required.

MKT 286
Marketing and Management Internship II (1 CR)
Prerequisite: MKT 284
Upon successful completion of this course, the student should be able to apply classroom knowledge to an actual work situation. This course offers work experience under instructional supervision in an approved training situation designed to provide practical experience in marketing and management. A minimum of 15 hrs./wk. on-the-job training is required.
MKT 288  
Marketing and Management Internship III (1 CR)
Prerequisite: MKT 286
Upon successful completion of this course, the student should be able to apply classroom knowledge to an actual work situation. This course offers work experience under instructional supervision in an approved training situation designed to provide practical experience in marketing and management. A minimum of 15 hrs./wk. on-the-job training is required.

MKT 289  
Marketing and Management Internship IV (1 CR)
Prerequisite: MKT 288
Upon successful completion of this course, the student should be able to apply classroom knowledge to an actual work situation. This course offers work experience under instructional supervision in an approved training situation designed to provide practical experience in marketing and management. A minimum of 15 hrs./wk. on-the-job training is required.

MKT 290  
Capstone: Marketing and Management Case Studies (3 CR)
Prerequisites: BUS 141 and BUS 230 and MKT 284 and MKT 286 or assistant dean's approval
Upon successful completion of this course, the student should be able to identify problems, develop and describe the situational analysis, formulate alternative solutions, and reach and explain a decision for each issue. In addition, the student should be able to apply the knowledge of marketing and management concepts and techniques in the analysis of cases and actual business situations. 3 hrs. lecture/wk.

Mathematics (MATH)

MATH 099  
Introduction to Algebra and Intermediate Algebra (6 CR)
Prerequisite: MATH 111 with a grade of "C" or better or an appropriate score on an assessment test.
This 16-week course is an integration of the content of both Introduction to Algebra and Intermediate Algebra and graded as if taken as two separate courses. You will earn 3 credit hours in Introduction to Algebra and 3 credit hours in Intermediate Algebra that will transfer as if they were being taught in the traditional format. Students will receive credit on their transcript for MATH 115 and MATH 116. NOTE: the prerequisite of MATH 111 requires a grade of "C" or greater. MATH 115 does not fulfill degree requirements.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $0 to 100.

MATH 111  
Fundamentals of Mathematics (3 CR)
Prerequisite: Appropriate score on the math assessment test
Fundamentals of Mathematics is designed for the student who needs to improve or review basic math skills and concepts. This course includes computation using integers, fractions, decimals, proportions and percents along with an overview of percents, measurement, geometry, statistics and linear equations. Fundamentals of Math provides the mathematical foundation upon which subsequent studies in mathematics and other areas depend. 3 or 5 hrs. lecture / wk. This course does not fulfill degree requirements. This course may be offered as a Learning Communities (LCOM) section, see current credit schedule for LCOM details.
MATH 115
Introduction to Algebra (3 CR)
Prerequisite: MATH 111 with a minimum grade of "C" or appropriate score on the math assessment test
This is a beginning course in algebra, designed to help students acquire a solid foundation in the basic skills of algebra. Students will learn to simplify arithmetic and algebraic expressions, including exponential expressions, polynomials, rational expressions and radical expressions; solve equations and inequalities, including linear equations and quadratic equations; graph linear equations; and analyze linear equations. 3 or 5 hrs. lecture/wk. This course does not fulfill degree requirements. NOTE: The prerequisite of MATH 111 requires a grade of "C" or greater. This course may be offered as a Learning Communities (LCOM) section, see current credit schedule for LCOM details.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $0 to 100.

MATH 116
Intermediate Algebra (3 CR)
Prerequisite: MATH 115 with a minimum grade of "C" or appropriate score on the math assessment test
This course focuses on arithmetic and algebraic manipulation, equations and inequalities, graphs, and analysis of equations and graphs. Students will simplify arithmetic and algebraic expressions, including those containing rational expressions, radical exponents, radicals and complex numbers; solve equations and inequalities including linear, quadratic, quadratic in form, as well as those containing rational expressions, radicals or absolute value; graph linear inequalities and basic conics; and analyze functions and nonfunctions. 3 or 5 hrs. lecture/wk. NOTE: the prerequisite of MATH 115 requires a grade of "C" or greater.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $0 to 100.

MATH 118
Geometry (3 CR)
Prerequisite: MATH 115 with a minimum grade of "C" or appropriate score on the math assessment test
This course is an informal approach to geometry. Topics will include lines, polygons, area, volume, circles, similarity, congruence and coordinate geometry. 3 hrs. lecture/wk. NOTE: the prerequisite of MATH 115 requires a grade of "C" or greater.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $0 to 100.

MATH 120
Business Mathematics (3 CR)
Prerequisite: MATH 111 with a minimum grade of "C" or appropriate score on the math assessment test
This is a course for the student who needs specific skills in mathematics to address business problems and business applications. Students will learn the mathematics involved in retailing, payroll, financial analysis, interest, and money management. Students will use a calculator and computer to solve a variety of applications. 3 hrs./wk. NOTE: the prerequisite of MATH 111 requires a grade of "C" or greater.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $0 to 25.

MATH 122
Mathematics in Our Culture (3 CR)
Prerequisite: MATH 111 with a minimum grade of "C" or appropriate score on the math assessment test
This is a course about the extent, power and history of many interesting areas of mathematics. Topics will include mathematical reasoning and recreation, calculator activities, computer literacy, mathematics in art and music, probability, statistics and topology. 3 hrs./wk. NOTE: the prerequisite of MATH 111 requires a grade of "C" or greater.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $0 to 100.

MATH 133
Technical Mathematics I (4 CR)
Prerequisite: MATH 111 with a minimum grade of "C" or appropriate score on the math assessment test
This course is the first of a two-semester sequence that will introduce the mathematical skills and concepts necessary in technical work. It will focus on the basics of algebra, geometry and trigonometry and their applications. Topics will include operations with polynomials, linear equations, systems of equations, right triangle trigonometry and basic statistical concepts. 4 hrs./wk. NOTE: the prerequisite of MATH 111 requires a grade of "C" or greater.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $0 to 100.

MATH 134
Technical Mathematics II (5 CR)
Prerequisite: MATH 133 or an equivalent course with a minimum grade of "C"
This course is the second of a two-semester sequence on technical applications of algebra and trigonometry. Topics will include factoring, algebraic fractions, quadratic equations, exponents, radicals, an introduction to coordinate geometry, logarithmic and exponential functions, trigonometric graphs and identities. 5 hrs./wk. NOTE: the prerequisite of MATH 133 requires a grade of "C" or greater.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $0 to 100.

MATH 165
Finite Mathematics (3 CR)
Prerequisite: MATH 116 with a grade of "C" or better or MATH 134 with a minimum grade of "C" or MATH 171
This course will emphasize the beauty, scope, practical applications and relevance of mathematics. It is designed to involve the students with the concepts as well as quantitative skills. Topics include inductive and deductive reasoning, mathematical patterns, sets, introduction to trigonometry, Euclidean geometry, probability, statistics and matrices. The common themes throughout the course are innovation in computers, related mathematical and cultural history and reasoning ability. 3 hrs./wk. MATH 165 is only offered during the spring term. NOTE: the prerequisite of MATH 116 requires a grade of "C" or greater.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $0 to 100.

MATH 171
College Algebra (3 CR)
Prerequisite: MATH 116 with a minimum grade of "C" or MATH 134 with a minimum grade of "C" or appropriate score on the math assessment test Note: Not available to students with credit in MATH 173
This course focuses on the study of functions and their graphs, techniques of solving equations and the recognition and creation of patterns. Students will analyze and graph functions, including constant, linear, absolute value, square root, polynomial, rational, exponential and logarithmic functions and non-functions; solve equations and inequalities, including polynomial equations, exponential equations, logarithmic equations, systems of linear equations and
systems of linear inequalities; and analyze and create algebraic and numerical patterns. 3 or 5 hrs./wk. Not available for credit for students with credit in MATH 173. NOTE: the prerequisites of MATH 116 or MATH 134 require a grade of "C" or greater. This course may be offered as a Learning Communities (LCOM) section, see current credit schedule for LCOM details. Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $0 to 100.

MATH 172
Trigonometry (3 CR)
Prerequisite: MATH 171 with a minimum grade of "C" or appropriate score on the math assessment test Note: Not available to students with credit in MATH 173
This is a course in trigonometric functions and graphs. Emphasis will be on understanding function notation, definitions, algebraic relations, real-world applications, graphing in the real and complex plane, inverse functions, polar functions and vectors. Students who take Math 172 and Math 173 will receive at most five hours of credit toward graduation. 3 hrs./wk. Not available for credit for students with credit in MATH 173. NOTE: the prerequisite of MATH 171 requires a grade of "C" or greater.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $0 to 100.

MATH 173
Precalculus (5 CR)
Prerequisite: MATH 116 with a minimum grade of "C" or appropriate score on the math assessment test Note: Not available for credit for students with credit in MATH 171 and/or MATH 172
Note: MATH 173 is an accelerated course recommended for students with a strong high school math background (three to four years) who plan to take calculus. This course focuses on the study of functions and their graphs, trigonometry, techniques of solving equations and the recognition and creation of patterns. Students will analyze and graph functions, including constant, linear, absolute value, square root, polynomial, rational, exponential, logarithmic and trigonometric functions and nonfunctions; solve equations and inequalities, including polynomial equations, exponential equations, logarithmic equations, trigonometric equations, systems of linear and nonlinear equations and systems of linear and nonlinear inequalities; and analyze and create algebraic and numerical patterns. 5 hrs./wk. Not available for credit for students with credit in MATH 171 and/or MATH 172. NOTE: the prerequisite of MATH 116 requires a grade of "C" or greater.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $0 to 100.

MATH 175
Discrete Mathematics and its Applications (3 CR)
Prerequisite: MATH 171 or MATH 173 with a minimum grade of "C" or appropriate score on the math assessment test
This course is designed to present the beauty, scope, practical applications and relevance of mathematics. It will focus on applications of general interest drawn primarily from the social and biological sciences and business. Topics will be placed in a historical context, and mathematical reasoning will be stressed. Many of the applications will be computer-oriented. 3 hrs./wk. NOTE: the prerequisites of MATH 171 or MATH 173 require a grade of "C" or greater.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $0 to 100.

MATH 181
Statistics (3 CR)
Prerequisite: MATH 171 or MATH 173 or an equivalent course with a minimum grade of "C" or appropriate score on the math assessment test
This is a beginning course in statistical analysis, the skill of making sense of raw data - constructing graphical representations of data, developing models for
making predictions, performing tests to determine significant change and finding intervals for population values. Students will learn the basics of descriptive statistics, probability, sampling, confidence intervals, distributions, hypothesis testing, regression and correlation. Computer applications will be incorporated into course topics. 3 hrs./wk. A statistical package using the computer is a required part of instruction. No computer skills are necessary. NOTE: the prerequisites of MATH 171 or MATH 173 require a grade of "C" or greater.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $0 to 100.

MATH 191
Math & Physics for Games I (4 CR)
Prerequisite: MATH 171 or MATH 173 with a grade of "C" or higher or appropriate score on math assessment test and CS 200

This introductory course focuses on the mathematics and physics concepts needed to program a variety of video game scenarios. Students will learn to use vectors and matrix transformations to model the motion of physical objects in two and three dimensions. Students will also learn various computer programming methods in order to model these mathematical and physical concepts. 3 hrs. lecture and 2 hrs. lab/wk. NOTE: the prerequisites of MATH 171 or MATH 173 require a grade of "C" or greater.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $0 to 100.

MATH 210
Mathematics for Elementary Teachers I (3 CR)
Prerequisite: Minimum grade of "C" or higher in MATH 171 or MATH 173 or appropriate score on math assessment test

This is the first of a two-course sequence for prospective teachers of elementary and middle school mathematics. The focus of this course is an in-depth investigation of the mathematical principles and concepts encountered in grades K-8. Topics include set theory, numeration systems, number sense, critical thinking, and problem-solving strategies. The use of appropriate techniques and tools, such as calculators, computers, and manipulatives, will be integrated throughout the course in order to enhance the depth of understanding. 3 hrs. lecture/wk. NOTE: the prerequisites of MATH 171 or MATH 173 require a grade of "C" or greater.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $0 to 100.

MATH 212
Math for Elementary Teachers II (3 CR)
Prerequisite: MATH 210 with a grade of "C" or higher or consent of the assistant dean

This is the second of a two-course sequence for prospective teachers of elementary/middle school mathematics. The focus of this course is an in-depth investigation of the mathematical principles and concepts encountered in grades K-8. Topics include probability, statistics, measurement, and shapes, congruency, similarity, and transformations. The use of appropriate techniques and tools, such as calculators, computers, and manipulatives, will be integrated throughout the course in order to enhance the depth of understanding. 3 hrs. lecture/wk. NOTE: the prerequisite of MATH 210 requires a grade of "C" or greater.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $0 to 100.

MATH 225
Mathematics as a Decision Making Tool (3 CR)
Prerequisite: MATH 171 or MATH 173 with a minimum grade of "C" or appropriate score on the math assessment test

The focus of this course is to develop the quantitative skills and reasoning ability necessary to help students read critically and make decisions in our technical information society. A project tying this course to the student's own interest is a
course requirement. Major topics include collecting and describing data, inferential
statistics and probability, geometric similarity, geometric growth, symmetry and
patterns. 3 hrs. lecture/wk. NOTE: the prerequisites of MATH 171 or MATH 173
require a grade of "C" or greater.
Associated Costs: In addition to the course tuition, fees, and textbooks, this
course has additional expense considerations that are estimated to be $0 to 100.

MATH 231
Business and Applied Calculus I (3 CR)
Prerequisite: MATH 171 or MATH 173 with a minimum grade of "C" or appropriate
score on the math assessment test
This is the first course in calculus as it applies to business, psychology and the
physical sciences. Concepts include measuring the slope of a curve, writing
equations of tangent lines, finding maximum and minimum points, determining the
rate of change of a function, and measuring the area under a curve. Algebraic
skills and application problems are stressed. Specific calculus topics include
finding limits, differentiation of algebraic, exponential and logarithmic functions,
and integration of algebraic and exponential functions. Trigonometry (MATH 172)
can be taken concurrently with MATH 231 for those students planning to enroll in
MATH 232 in subsequent semesters. 3 hrs./wk. NOTE: the prerequisites of MATH
171 or MATH 173 require a grade of "C" or greater.
Associated Costs: In addition to the course tuition, fees, and textbooks, this
course has additional expense considerations that are estimated to be $0 to $100.

MATH 232
Business and Applied Calculus II (3 CR)
Prerequisites: MATH 231 and either MATH 172 or MATH 173 or an equivalent
course with a minimum grade of "C"
This is the second course in a two-semester series on calculus that covers five
techniques of integration, differentiation and integration of trigonometric functions,
differential equations, and functions of several variables as applied to business,
statistics, biology and the social sciences. 3 hrs./wk. NOTE: the prerequisites of
MATH 231, MATH 172 and MATH 173 require a grade of "C" or greater.
Associated Costs: In addition to the course tuition, fees, and textbooks, this
course has additional expense considerations that are estimated to be $0 to 100.

MATH 237
Calculus for Biology and Medicine (5 CR)
Prerequisite: MATH 172 or MATH 173 or an equivalent course with a minimum
grade of "C"
This course focuses on the study and mathematical modeling of biological
systems. Through a host of biological and medical applications, the rudiments of
calculus are developed. Concepts include measuring the slope of a curve, writing
equations of tangent lines, maximizing and minimizing a function, determining the
rate of change of a function, and measuring the area under a curve. Solution
techniques, both analytic and numeric, for difference and differential equations are
used. Modeling activities are heavily emphasized. Qualitative analysis of solutions
differential equations is incorporated in modeling activities. Application areas
include mathematical physiology, pharmacology, cell biology and populations
biology. 5 hrs. lecture/wk. NOTE: the prerequisites of MATH 172 or MATH 173
require a grade of "C" or greater.
Associated Costs: In addition to the course tuition, fees, and textbooks, this
course has additional expense considerations that are estimated to be $0 to 100.

MATH 241
Calculus I (5 CR)
Prerequisite: MATH 172 or MATH 173 or an equivalent course with a minimum
grade of "C"
This is the first of a three-semester sequence on calculus designed for
engineering, physics and math majors. Rates of change, areas and volumes will
be studied. To accomplish this, the students will study and apply limits and
continuity. Differentiation and integration of algebraic, trigonometric and
transcendental functions will also be a major focus of this course. 5 hrs./wk.

NOTE: the prerequisite of MATH 172 or MATH 173 require a grade of "C" or
greater.

Associated Costs: In addition to the course tuition, fees, and textbooks, this
course has additional expense considerations that are estimated to be $0 to 100.

MATH 242
Calculus II (5 CR)
Prerequisite: MATH 237 or MATH 241 or an equivalent course with a minimum
grade of "C"

This is the second course of a three-semester sequence on calculus. The
emphasis will be an analytic, numerical and graphical approach to techniques of
integration, infinite series and vectors in the plane including scientific applications.
5 hrs./wk. NOTE: the prerequisites of MATH 237 and MATH 241 require a grade
of "C" or greater.

Associated Costs: In addition to the course tuition, fees, and textbooks, this
course has additional expense considerations that are estimated to be $0 to 100.

MATH 243
Calculus III (5 CR)
Prerequisite: MATH 242 or an equivalent course with a minimum grade of "C"

This is the third course in a three-semester sequence on analytic geometry and
calculus. Topics include vector-valued functions, functions of several variables,
multiple integration, vector analysis and linear algebra. 5 hrs./wk. NOTE: the
prerequisite of MATH 242 requires a grade of "C" or greater.

Associated Costs: In addition to the course tuition, fees, and textbooks, this
course has additional expense considerations that are estimated to be $0 to 100.

MATH 244
Differential Equations (3 CR)
Prerequisite: MATH 243 or an equivalent course with a minimum grade of "C"

This course will cover standard types of equations that involve rates of change. In
particular, this is an introductory course in equations that involve ordinary
derivatives. Both qualitative and quantitative approaches will be used. Standard
types and methods will be covered, including Laplace transforms and numerical
methods. 3 hrs./wk. NOTE: the prerequisite of MATH 243 requires a grade of "C"
or greater.

Associated Costs: In addition to the course tuition, fees, and textbooks, this
course has additional expense considerations that are estimated to be $0 to 100.

MATH 246
Elementary Linear Algebra (3 CR)
Prerequisite: MATH 242 or an equivalent course with a minimum grade of "C"

This sophomore-level introduction to linear algebra uses a matrix-oriented
approach, with an emphasis on problem solving and applications. The course
focus is on matrix arithmetic, systems of linear equations, properties of Euclidean
n-space, eigenvalues and eigenvectors, orthogonality and vector spaces. The use
of technology is a major feature of the course. 3 hrs. lecture/wk. MATH 246 is
only offered during the spring term. NOTE: the prerequisite of MATH 242 requires
a grade of "C" or greater.

Associated Costs: In addition to the course tuition, fees, and textbooks, this
course has additional expense considerations that are estimated to be $0 to 100.

MATH 285
Statistics for Business (4 CR)
Prerequisite: MATH 232 or MATH 242 or an equivalent course with a grade of "C"
or better Note: Students transferring MATH 285 to the University of Kansas must
have CIS 124 or CIS 134 as a corequisite. Or corequisite CIS 124 or CIS 134

This is a beginning course in calculus-based statistical analysis, the skill of
making sense of raw data -- constructing graphical representations of data, developing models for making predictions, performing tests to determine significant change and finding intervals for population values. Students must have an understanding of calculus concepts in order to successfully complete this course. Students will learn the basics of descriptive statistics, probability sampling, confidence intervals, hypothesis testing and linear regression. The course will stress the applications to business with emphasis on quality control. 4 hrs./wk. Students transferring MATH 285 to KU must have CIS 124 or CIS 134 as a corequisite. NOTE: the prerequisites of MATH 232 or MATH 242 require a grade of "C" or greater.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $0 to 100.

Metal Fabrication and Welding (MFAB)

MFAB 121
Introduction to Welding (4 CR)
Upon successful completion of this course, the student should be able to perform oxy-fuel cutting (OFC), oxy-fuel welding (OFW) and brazing, shielded metal arc welding (SMAW) and gas metal arc welding (GMAW) equipment. The SMAW portion of the course will cover positions but will be limited to fillet welds. All welds will be tested according to industry standards. The student will be required to provide ANSI Z87 safety glasses and may be expected to provide other basic hand tools and/or equipment. 1 hr. lecture, 6 hrs. lab/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $30 to 150.

MFAB 125
Advanced Gas and Arc Welding (4 CR)
Prerequisite: MFAB 121
This course is a continuation of Introduction to Welding. The course will cover more advanced projects in oxyacetylene welding, cutting, brazing, shielded metal arc welding (SMAW) and carbon arc cutting with air (CAC-A). The SMAW process will be used to weld v-groove butt joints in the flat, horizontal, vertical up and overhead positions, with root and face U-bend test being performed on the welds made in the vertical position. The student will be required to provide ANSI Z87 safety glasses and may be expected to provide other basic hand tools and/or equipment. 1 hr. lecture, 6 hrs. lab/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $30 to 150.

MFAB 127
Welding Processes (2 CR)
Upon successful completion of this course, the student should be able to identify various welding processes used by industries. Standard shop and maintenance welding processes will be taught and demonstrated. Welds will be tested and inspected according to industry standards. This course can be used by an individual company to train or upgrade train employees and can be customized to fit individual needs. 1 hr. lecture, 1.5 hrs. lab/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $30 to 150.

MFAB 130
Gas Metal Arc Welding I (4 CR)
Upon successful completion of this course, the student should be able to identify the theory of gas metal arc welding (GMAW) and flux-cored arc welding (FCAW). The welding of mild steel plate will occur in all positions on both fillet and groove welds with the GMAW process. The FCAW process will be used to weld some fillet and groove welds on mild steel in selected weld positions. The Plasma Arc Cutting (PAC) metal cutting process will be used to conserve material use and plant preparation. A root and face guide U-bend test will be performed on vertical
up GMAW weld test coupons. The student will be required to provide ANSI Z87 safety glasses, and may be expected to provide other basic hand tools and/or equipment. 1 hr. lecture, 6 hrs. lab/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $30 to 150.

MFAB 140
Maintenance Repair Welding (3 CR)
Prerequisites: MFAB 121 or MFAB 130
Upon successful completion of this course, the student should be able to perform oxyfuel cutting (OFC), shielded metal arc welding (SMAW), gas metal arc welding (GMAW) and plasma arc cutting (PAC). Basic blueprint and welding symbols will be introduced, and selected welds and assignments will be tested according to industry standards. The student will be required to provide ANSI Z-87.1 approved safety glasses and may be expected to provide other basic hand tools and/or equipment as required by employers. This course is designed for individuals who have welding experience or who are employed by a company that requires welding skills. This course can be customized for advanced training. 1 hr. lecture, 2 hrs. lab/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $30 to 150.

MFAB 152
Manufacturing Materials and Processes (3 CR)
This is a beginning course in metal fabrication technology that is appropriate for the metal fabrication major and other interested students. Upon successful completion of this course, the student should be able to identify various manufacturing materials and processes currently used in industry. The capabilities and applications of machine tool, general fabrication, welding processes, robotics, cut-off equipment and other manufacturing processes and equipment will be studied. Lectures will be supplemented by demonstrations of various processes and equipment. Students are required to wear safety glasses during demonstrations. 3 hrs. lecture-demonstrations/wk.

MFAB 160
Gas Tungsten Arc Welding (4 CR)
Prerequisite: MFAB 121 or MFAB 130
This course will cover the basic theory of gas tungsten arc welding (GTAW). The student will weld on mild steel, stainless steel and aluminum in a variety of positions on both fillet and groove welds using the GTAW process, with guided U-bend test being performed on mild steel. Students will also use the plasma arc cutting system (PAC) on selected assignments. The students will be required to provide ANSI Z87 safety glasses and may be expected to provide other basic hand tools and/or equipment. 1 hrs. lecture, 6 hrs. lab/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $30 to 150.

MFAB 170
Basic Machine Tool Processes (4 CR)
Upon successful completion of this course, the student should be able to practice the basic principles of machining as well as the setup and operation of machines. Lab will include the use of lathes, mills, drills, cut-off and other types of equipment. 2 hrs. lecture, 4 hrs. lab/wk.

MFAB 180
Blueprint and Symbols Reading for Welders (2 CR)
Upon successful completion of this course, the student should be able to identify basic welding positions and explain, list, sketch, draw, use or describe current American Welding Society (AWS) welding symbols and weld joint configurations.
The student will be introduced to several methods of producing welding blueprints, object representatives, and specific meanings of selected lines, surface features, sectional views and basic math formulas used in the welding industry. The student will be able to identify the symbols used for fillet welds and groove welds made with and without backing. Topics such as pipe welding representations, pipe welding connections, pipe welding classifications, welder certification, metallurgical effects of heat on metals and the importance of weld quality will be studied. 4 hrs. lecture/wk.

MFAB 230
Gas Metal Arc Welding II (4 CR)
Prerequisite: MFAB 130
Upon successful completion of this course, the student should be able to identify the theory of gas metal arc welding (GMAW) and flux-cored arc welding (FCAW). The student will weld with the GMAW and FCAW processes in the flat, horizontal, vertical up and overhead positions on both fillet and groove welds. The GMAW welds will be made on aluminum, and the FCAW welds will be on 1-inch mild steel with side bend test being made on the overhead and horizontal weldments. 1 hr. lecture, 6 hrs. lab/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $30 to 150.

MFAB 240
Metallurgy (2 CR)
Metallurgy is the study of the science and technology of metals. This course covers the extractive, mechanical and physical phases of metallurgy. Topics include the identification of metals, types and classification of metals, heat treatment procedures and common steel manufacturing processes. 2 hrs. lecture-demonstration/wk.

MFAB 271
Metal Fabrication Internship (3 CR)
Prerequisite: Program facilitator approval
Upon successful completion of this course, the student should be able to apply classroom knowledge to an actual work situation. The internship will provide advanced students with on-the-job experience under the supervision of professionals in the industry. The work will be developed cooperatively with area employers, college staff and each student to provide a variety of actual job experiences directly related to the student's career goals. 1 hrs. lecture, 15 hrs. minimum on-the-job training/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $30 to 150.

Music (MUS)

MUS 121
Introduction to Music Listening (3 CR)
This course is designed to enhance student music listening. Students will learn to identify changes in the elements of music through the different stylistic periods of classical music. Factual and historical information will be presented to broaden the student's cultural and music appreciation. Students will hear recorded examples of music from the Medieval, Renaissance, Baroque, Classical, Romantic and 20th-century eras, as well as popular American forms and music from non-Western cultures. 3 hrs./wk.
**Introduction to Music Fundamentals** (2 CR)
This course is designed to present the fundamentals of music theory to students who have no previous background or training in that subject. Students will receive detailed instruction in naming notes; scales and chords; building intervals; and correlating these skills to the keyboard. 2 hrs./wk.

**MUS 125**
**Introduction to Jazz Listening** (3 CR)
This is an entry-level course for the student with little or no prior knowledge of the American art form of jazz music. Through reading and listening, the student will learn the basic structure of the elements of music and how these are organized to create jazz. Topics to be covered will include rhythm, harmony, and form; Dixieland style; swing style; bop; and contemporary jazz. 3 hrs./wk.

**MUS 126**
**Introduction to World Music** (3 CR)
This course provides students with an introduction to the musical heritage of the world. Through an interdisciplinary approach profiling the arts, humanities and social sciences, the course fosters skills necessary to gain a deeper appreciation of both familiar and unfamiliar musical traditions. The course will survey a representative cross section of the major musical traditions of the world, which may include Native American, Black American, sub-Saharan African, Eastern European/Bosnian, Indian, Indonesian, Japanese and Latin American/Brazilian traditions. Note: The course does not require the ability to read music. 3 hrs. lecture/wk.

**MUS 131**
**Sight-Singing and Ear Training I** (2 CR)
This course is an introduction to sight singing and ear training. Basic methods of reading music are presented and practiced. Students are also trained to recognize aurally and notate the basic elements of music: intervals, diatonic melodies, simple rhythms, chord qualities, and basic harmonic progressions. The content is designed to complement the Harmony I course, though it is not necessary they be taken in the same semester. 2 hrs./wk.

**MUS 132**
**Sight-Singing and Ear Training II** (2 CR)
*Prerequisite: MUS 131*
This course is a continuation of the class Sight-singing and Ear Training I. The content is designed to complement the Harmony II course though it is not necessary they be taken in the same semester. 2 hrs./wk. This course is typically taught in the spring semester.

**MUS 133**
**Sight-Singing and Ear Training III** (2 CR)
*Prerequisite: MUS 132*
This course is a continuation of the classes Sight-singing and Ear Training I and II. The content is designed to complement the Harmony III course, though it is not necessary they be taken in the same semester. 2 hrs./wk.

**MUS 134**
**Sight-Singing and Ear Training IV** (2 CR)
Prerequisite: MUS 133
This course is a continuation of the first three courses in sight-singing and ear training. Students are trained to produce and hear the most complex aspects of music theory in the common practice era (1650-1920). The content is designed to complement the Harmony IV course, though it is not necessary they be taken in the same semester. 2 hrs./wk.

MUS 141
Music Theory: Harmony I (3 CR)
This course is a basic study of the harmonic system sited in Western music composed from 1650 to 1900 and still in use in areas of music composition. Students will learn the basic skills involved in writing and analyzing music of this nature as well as play simple chord progressions on the piano. 3 hrs./wk.

MUS 142
Music Theory: Harmony II (3 CR)
Prerequisite: MUS 141 or passing equivalency test
Harmony II is a continuation of the study of the harmonic system used in music composed from 1650 to 1900 and still in use in certain areas of music composition. The course covers use of non-harmonic tones, supertonic and dominant sevenths, functions of the submediant and mediant triads, advanced melodic writing and secondary dominant chords. Student will learn to harmonize melodies at the keyboard and play simple chord progressions on the piano. Music of the period will be analyzed. Selected software programs will enhance student skills and understanding. 3 hrs./wk. This course is typically taught in the spring semester.

MUS 143
Music Theory: Harmony III (3 CR)
Prerequisite: MUS 142 or passing equivalency test
This is a continuation of the study of the harmonic system used in all music composed from 1650 to 1900 and still in use in many areas of music composition today. Important topics include devices of modulation, binary and ternary, and 12 bar blues musical forms and application of part writing procedures to instrumental music. Particular attention will be paid to the nature and functions of diatonic seventh chords, secondary dominants, borrowed chords and Neapolitan chords. Students will work with keyboard harmony exercises of increasing difficulty. Selected software programs will enhance student skills and understanding. 3 hrs./wk.

MUS 144
Music Theory: Harmony IV (3 CR)
Prerequisite: MUS 143 or passing equivalency test
Harmony IV is a continuation of the study of the harmonic practices of tonal music and introduction to 20th-century harmony. Topics include augmented sixth chords, enharmonic modulation, and advanced chromatic harmonies. An introduction to 20th-Century harmonic organization includes extended tertian harmony, modal harmony, parallelism, pandiatonicism, atonality, serialism, and aleatory music. Students will work with keyboard harmony exercises of increasing difficulty. Selected software programs will enhance student skills and understanding. 3 hrs./wk.

MUS 151
Mixed Vocal Ensemble I (1 CR)
Prerequisite: Audition required
Choral ensembles are open to participation by the student body. Choral experience or skill is desired in some ensembles but not in others. The ensemble will learn a varied body of choral materials from the choral traditions of both past and present, performing at student and community activities. The literature will be specific to the nature of the group and the skills of the students involved. 3 hrs./wk.

**MUS 152**  
**Mixed Vocal Ensemble II** (1 CR)  
*Prerequisite: MUS 151 and audition required*  
Choral ensembles are open to participation by the student body. Choral experience or skill is desired in some ensembles but not in others. The ensemble will learn a varied body of choral materials from the choral traditions of both past and present, performing at student and community activities. The literature will be specific to the nature of the group and the skills of the students involved. 3 hrs./wk.

**MUS 153**  
**Mixed Vocal Ensemble III** (1 CR)  
*Prerequisite: MUS 152 and audition required*  
Choral ensembles are open to participation by the student body. Choral experience or skill is desired in some ensembles but not in others. The ensemble will learn a varied body of choral materials from the choral traditions of both past and present, performing at student and community activities. The literature will be specific to the nature of the group and the skills of the students involved. 3 hrs./wk.

**MUS 154**  
**Mixed Vocal Ensemble IV** (1 CR)  
*Prerequisite: MUS 153 and audition required*  
Choral ensembles are open to participation by the student body. Choral experience or skill is desired in some ensembles but not in others. The ensemble will learn a varied body of choral materials from the choral traditions of both past and present, performing at student and community activities. The literature will be specific to the nature of the group and the skills of the students involved. 3 hrs./wk.

**MUS 156**  
**MIDI Music Composition** (3 CR)  
MIDI Music Composition I is designed to create a technical and conceptual foundation for further studies in electronic music. Students will learn and demonstrate basic compositional techniques, including form, melody, rhythm and harmony. Also, the student will demonstrate the ability to use computers and software to create and perform music. Emphasis will be on developing skills appropriate to the beginning student for the purpose of creative and technical expression. 2 hrs. lecture, 2 hrs. lab/wk.

**MUS 157**  
**Introduction to Digital Audio** (3 CR)  
*Prerequisite: MUS 156*  
Introduction to Digital Audio is designed to further develop skills acquired in MIDI Music Composition I. Students will practice using ProTools digital audio software, combined with a digital audio interface to record, edit and play back music. Students will be introduced to basic concepts of sound, and common audio effects, including reverb, delay and compression. Students will also further
MUS 158  
**Introduction to the Recording Studio** (4 CR)  
*Prerequisite or corequisite: MUS 156*

This course is an introductory study of the modern multi-track recording studio. Emphasis is placed on understanding the audio signal path, use of the patch bay, recorder remote control operations, basics of microphone technique, and simple soldering and realization of schematic diagrams. Students will demonstrate an understanding of the skills necessary to conduct a simple recording session, from set-up to final mix. 3 hrs. lecture, 2 hrs. lab/wk.

MUS 159  
**Recording Studio Skills II** (4 CR)  
*Prerequisite: MUS 156 and MUS 158*

This course is an in-depth study of the modern multi-track recording studio and a continuation of Intro to the Recording Studio. Emphasis is placed on developing increased competencies in a variety of recording studio skills. Students will demonstrate increased competencies in using the patch bay and tracing signal flow, properly selecting and using microphones, using the audio console in a utilitarian and creative manner, reading electronic schematic diagrams, using soldering skills to fabricate circuits, using multiple sets of audio monitors and headphones to analyze audio and mix audio, and record and mix audio sessions using industry-standard Digital Audio Workstations (DAW). 3 lecture, 2 hrs. lab/wk.

MUS 161  
**Chamber Choir I** (1 CR)  
*Prerequisite: Audition required*

This auditioned choral ensemble is open to participation by the student body. Prior choral experience or a reasonable level of music reading and vocal technique is necessary. The choir will learn a varied body of choral materials from the choral traditions of both past and present, performing at student and community activities. 3 hrs./wk.

MUS 162  
**Chamber Choir II** (1 CR)  
*Prerequisite: MUS 161 and audition*

This auditioned choral ensemble is open to participation by the student body. Prior choral experience or a reasonable level of music reading and vocal technique is necessary. The choir will learn a varied body of choral materials from the choral traditions of both past and present, performing at student and community activities. 3 hrs./wk.

MUS 163  
**Chamber Choir III** (1 CR)  
*Prerequisite: MUS 162 and audition*

This auditioned choral ensemble is open to participation by the student body. Prior choral experience or a reasonable level of music reading and vocal technique is necessary. The choir will learn a varied body of choral materials from the choral traditions of both past and present, performing at student and community activities. 3 hrs./wk.
MUS 164
Chamber Choir IV (1 CR)
Prerequisite: MUS 163 and audition
This auditioned choral ensemble is open to participation by the student body. Prior choral experience or a reasonable level of music reading and vocal technique is necessary. The choir will learn a varied body of choral materials from the choral traditions of both past and present, performing at student and community activities. 3 hrs./wk.

MUS 165
Music Composition I (1 CR)
Prerequisite: MUS 141 or consent of instructor
This entry-level course provides instruction in the craft of musical composition. Traditional compositional techniques and concepts will be studied through demonstration and practice. Students will learn correct notational procedures and compose melodies and short pieces for one or two live performers. 1 hr. lecture/wk.

MUS 166
Music Composition II (1 CR)
Prerequisite: MUS 165
This is an intermediate-level course for students seeking instruction in the craft of musical composition. Traditional compositional techniques and concepts will be studied through demonstration and practice. Students will learn to use a computer to notate their compositions, will begin to work with tonal harmony, will write music for a trio and/or quartet, and will have a piece performed during a music department recital. 1 hr. lecture/wk.

MUS 167
Music Composition III (1 CR)
Prerequisite: MUS 166
This class is an intermediate-level course for the student seeking instruction in the craft of musical composition. Traditional compositional techniques and concepts will be studied through demonstration and practice. Students will enhance their ability to use a computer to notate their compositions, will begin to work with nonfunctional tonal harmony, will write music for SATB choir or for vocal soloist, and will have a piece performed during a music department recital. 1 hr. lecture/wk.

MUS 168
Music Composition IV (1 CR)
Prerequisite: MUS 167
This course is an advanced-level class for students seeking further instruction in the craft of musical composition. Traditional compositional techniques and concepts will be studied through demonstration and practice. Students will refine their ability to use a computer to notate their compositions, will continue to work with nonfunctional tonal harmony, will write music for larger ensembles, will have a piece performed in a music department recital, and will compile a portfolio of their work. 1 hr. lecture/wk.

MUS 171
Voice Class I (1 CR)
This course is designed to introduce the student to beginning vocal technique,
vocal vocabulary, performance experience and solo vocal repertoire. 1 hr./wk.

**MUS 172**  
**Voice Class II (1 CR)**

*Prerequisite: MUS 171*

This course is designed to continue instruction in proper vocal technique, vocal vocabulary, performance experience and solo vocal repertoire.

**MUS 173**  
**Voice Class III (1 CR)**

*Prerequisite: MUS 172*

This course is designed to continue instruction in proper vocal technique, vocal vocabulary, performance experience and solo vocal repertoire.

**MUS 174**  
**Voice Class IV (1 CR)**

*Prerequisite: MUS 173*

This course is designed to continue instruction in proper vocal technique, vocal vocabulary, performance experience and solo vocal repertoire.

**MUS 176**  
**Jazz Band I (1 CR)**

*Prerequisite: Audition required*

This is an entry-level course in the jazz band performing format for the student with little or no experience in this course of study. The student will learn, through rehearsal and performance, the basic elements of music and how these are utilized in the jazz band. Topics will include simple rhythms, basic melodic construction and major scale construction. 3 hrs./wk.

**MUS 177**  
**Jazz Band II (1 CR)**

*Prerequisite: MUS 176 or audition required*

This is a beginning-level course for the student with at least one semester of prior jazz band experience. Through rehearsal and performance, the student will learn beginning elements of music as applied to the jazz band performing format. Topics covered will include syncopated rhythm, Dorian minor scales and blues form. 3 hrs./wk.

**MUS 178**  
**Jazz Band III (1 CR)**

*Prerequisite: MUS 177 and audition required*

This is an intermediate-level course for the student with at least two semesters of prior jazz band experience. Through rehearsal and performance, the intermediate levels of jazz band performance will be learned. Topics covered will include Latin style, Mixolydian scales and the 32-bar song form. 3 hrs./wk.

**MUS 179**  
**Jazz Band IV (1 CR)**
Prerequisite: MUS 178 and audition required
This is an advanced-level course for the student with at least three semesters of prior jazz band experience. Advanced elements of jazz music will be learned through rehearsal and performance. Topics covered will include Lydian scales and ensemble performance techniques. 3 hrs./wk.

MUS 187
Jazz Improvisation I (2 CR)
Prerequisite: Audition
This is an entry-level course for the student with little or no jazz improvisation experience. Through written work and performance on the instrument of choice, the student will learn the basic elements of jazz improvisation. Topics to be covered will include identification and performance of basic intervals, major scales, Dorian modes, Mixolydian modes, major seventh chords, minor seventh chords, dominant seventh chords and the basic blues form. 2 hrs./wk.

MUS 188
Jazz Improvisation II (2 CR)
Prerequisite: MUS 187 and audition required
This is an advanced-level course for the student with at least one semester of jazz improvisation. Through performance on the chosen instrument and written studies, the student will learn advanced concepts of jazz improvisation. Topics to be covered include jazz performance style, construction of the improvised solo and 32-bar song form. 2 hrs./wk.

MUS 191
Concert Band I (1 CR)
Prerequisite: Audition required
This is an entry-level course in the concert band format for the student with little or no concert band experience. Students will learn the basic elements of music as related to the concert band through rehearsal and performance. Topics include counting and subdividing motifs into melodies; and differentiating between major and minor tonalities. 3 hrs./wk.

MUS 192
Concert Band II (1 CR)
Prerequisite: MUS 191 and audition required
This is a beginning-level course in the concert band format for the student with at least one semester of prior concert band experience. Students will learn the beginning-level elements of music as related to the concert band through rehearsal and performance. Topics to be covered include odd meters, minor scales and homophonic texture. 3 hrs./wk.

MUS 193
Concert Band III (1 CR)
Prerequisite: MUS 192 or audition required
This is an intermediate course for the student with at least two semesters of prior concert band experience. Through rehearsal and performance, the student will learn intermediate levels of the elements of music in the concert band format. Topics will include parade march style, concert march style and concert overture style. 3 hrs./wk.
MUS 194
Concert Band IV (1 CR)
*Prerequisite: MUS 193 or audition required*
This is an advanced course for the student with at least three semesters of prior concert band performing experience. Through rehearsal and performance, the student will learn the advanced concepts of concert band performance. Topics will include polyphonic texture, concert suite style and medley style. 3 hrs./wk.

MUS 195
Vocal Jazz Ensemble I (1 CR)
*Prerequisite: Audition required*
This is an entry-level course in the vocal jazz performing format. Through rehearsal and public performance, the student will learn the basic elements of music as applied to vocal jazz. Topics will include 8th note swing, jazz syncopation and 32-bar song form. 3 hrs./wk.

MUS 196
Vocal Jazz Ensemble II (1 CR)
*Prerequisite: MUS 195 and audition required*
This is a beginning-level course in the vocal jazz performing format. Through rehearsal and public performance, the student will learn the basic elements of music as applied to vocal jazz. Topics will include Dorian minor scales, Mixolydian scales and 12-bar blues form. 3 hrs./wk.

MUS 197
Vocal Jazz Ensemble III (1 CR)
*Prerequisite: MUS 196 and audition required*
This is an intermediate-level course in the vocal jazz performing format. Through rehearsal and public performance, the student will learn the basic elements of music as applied to vocal jazz. Topics will include beginning improvisation, Latin rhythm and major scales. 3 hrs./wk.

MUS 198
Vocal Jazz Ensemble IV (1 CR)
*Prerequisite: MUS 197 and audition required*
This is an advanced-level course in the vocal jazz performing format. Through rehearsal and public performance, the student will learn the basic elements of music as applied to vocal jazz. Topics will include scat, improvisation in 32-bar song form, Lydian scales and ballad style. 3 hrs./wk.

MUS 201
Chamber Ensemble I (1 CR)
*Prerequisite: Audition required*
This is an entry-level course for the student with little or no experience in the chamber ensemble performing format. Through written work and performance on the chosen instrument, the student will learn the basic fundamentals of this performing medium. Topics to be covered will include tone quality, intervals and rhythmic patterns. 2 hrs./wk.

MUS 202
Chamber Ensemble II (1 CR)
Prerequisite: MUS 201 or placement by instructor
This is a beginning-level course for the student with at least one semester of experience in the chamber ensemble performing format. Through written work and performance on the chosen instrument the student will learn the basic fundamental of this performing medium. Topics to be covered will include minor scales, chord construction and compound rhythms. 2 hrs./wk.

MUS 203
Chamber Ensemble III (1 CR)
Prerequisite: MUS 202 or placement by instructor
This is an intermediate-level course for the student with at least two semesters of chamber ensemble experience. Through written work and performance on the chosen instrument, the student will learn intermediate-advanced concepts of chamber ensemble performance. Topics to be covered include sight reading, intonation and style. 2 hrs./wk.

MUS 204
Chamber Ensemble IV (1 CR)
Prerequisite: MUS 203 or placement by instructor
This is an advanced-level course for the student with at least three semesters of prior ensemble experience. Through performance on the chosen instrument, the student will learn the advanced concepts of chamber ensemble performance. Topics to be covered will include balance and cooperative expression. 2 hrs./wk.

MUS 211
Orchestra I (1 CR)
Prerequisite: Audition required
This is an entry-level course in the orchestra format for the student with little or no orchestra experience. Students will learn the basic elements of music as related to the orchestra through rehearsal and performance. Topics include counting and subdividing duple, triple and quadruple rhythm; assembling melodic motifs into melodies; and differentiating between major and minor tonalities. Students will rehearse and perform with the Overland Park Civic Orchestra. 2 hrs. (1 evening)/wk.

MUS 212
Orchestra II (1 CR)
Prerequisite: MUS 211 and audition required
This is a beginning-level course in the orchestra format for the student with at least one semester of prior orchestra experience. Students will learn the beginning-level elements of music as related to the orchestra through rehearsal and performance. Topics to be covered include odd meters, minor scales and homophonic texture. 2 hrs. (1 evening)/wk.

MUS 213
Orchestra III (1 CR)
Prerequisite: MUS 212 and audition required
This is an intermediate course for the student with at least two semesters of prior orchestra experience. Through rehearsal and performance, the student will learn intermediate levels of the elements of music in the orchestra format. Topics will include parade march style, concert march style and concert overture style. (1 evening)/wk.
MUS 214
Orchestra IV (1 CR)
Prerequisite: MUS 213 and audition required
This is an advanced course for the student with at least three semesters of prior orchestra performing experience. Through rehearsal and performance, the student will learn advanced concepts in orchestral performance. Topics will include polyphonic texture, concert suite style and medley style. 2 hrs. (1 evening)/wk.

MUS 221
Piano Class I (2 CR)
This course provides a basic knowledge of music and the essential techniques required to play the piano. Students will learn essential musical terminology, including musical notation and symbols, major and minor key signatures, and the harmonization of melodies using tonic and dominant triads. Specific piano-related terminology will include finger exercises, basic keyboard repertoire using major and minor five-finger patterns, major and minor scales, major and minor triads in root position, ensemble playing of two to four parts, and the formation of good practice habits. Group Piano II should follow the successful completion of this course. Private piano lessons are encouraged for students who successfully complete both courses. 2 hrs./wk.

MUS 222
Piano Class II (2 CR)
Prerequisite: MUS 221 and instructor approval required
This is a beginning-level course that provides a basic knowledge of keyboard instruments. Students will learn and review musical terminology, musical notation and symbols, and specific piano-related terminology. Topics covered will include major and minor key signatures; exercises and repertoire using major and minor scales; exercises and repertoire using major, minor, diminished and augmented triads in root position and inversions; chord progressions; ensemble playing of two to four parts; and use of the damper pedal. This course is the continuation of MUS 221. Completion of this course should precede Applied Piano I. This course is for beginners able to progress at a fast pace, students with minimal previous experience or students who have completed MUS 221. 2 hrs./wk.

MUS 223
Piano Class III (2 CR)
Prerequisite: MUS 222 or permission of the instructor
This is an intermediate course that provides a basic knowledge of keyboard instruments. Students will learn and review musical terminology, musical notation and symbols, and specific piano-related terminology. Topics covered will include major and minor key signatures; exercises and repertoire using major and minor scales and modes; exercises and repertoire using major, minor, diminished and augmented triads in root position and inversions; chord progressions; ensemble playing of two to four parts; and use of the damper pedal. This course is the continuation of MUS 222. Completion of this course should precede Applied Piano I. This course is designed for students who have completed one year of study or who have completed MUS 222. 2 hrs./wk.

MUS 224
Piano Class IV (2 CR)
Prerequisite: MUS 223 or permission of the instructor
This is an advanced-level course for the student with at least three semesters of prior piano class instruction. Students will learn the advanced concepts of piano playing. Topics to be covered will include basic music notation, major and minor key signatures, tempo indications, major and minor arpeggios, finger patterns,
practice method chord progressions, and the use of the damper pedal. 2 hrs./wk.

**MUS 226**  
**Applied Guitar I (Class) (1 CR)**  
Students will be provided with a foundation in guitar technique upon which to base further study of the instrument. The course consists of an introduction to the use of the guitar as a solo, accompaniment and ensemble instrument. 1 hr./wk.

**MUS 227**  
**Applied Guitar II (Class) (1 CR)**  
*Prerequisite: MUS 226 or instructor permission*  
This continuation of MUS 226 builds a foundation in guitar technique upon which to base further study of the instrument. The course continues to teach techniques that enable students to use the guitar as a solo, accompaniment and ensemble instrument. 1 hr./wk.

**MUS 228**  
**Applied Guitar III (Class) (1 CR)**  
*Prerequisite: MUS 227 or instructor permission*  
This continuation of MUS 227 is designed to move students from the basic skill level to the intermediate skill level. The course continues to teach techniques that enable students to use the guitar as a solo, accompaniment and ensemble instrument. 1 hr./wk.

**MUS 229**  
**Applied Guitar IV (Class) (1 CR)**  
*Prerequisite: MUS 228 or instructor permission*  
This is a continuation of MUS 228 at an intermediate level of guitar playing skills. The course continues to teach techniques that enable students to use the guitar as a solo, accompaniment and ensemble instrument. 1 hr./wk.

**MUS 231**  
**Applied Voice I (Private) (1 CR)**  
This course is designed to introduce the student to beginning vocal technique, vocal vocabulary, performance experience and solo vocal repertoire.

**MUS 232**  
**Applied Voice II (Private) (1 CR)**  
*Prerequisite: MUS 231*  
This course uses private lessons to continue instruction in beginning vocal technique, vocal vocabulary, performance experience and solo vocal repertoire.

**MUS 233**  
**Applied Voice III (Private) (1 CR)**  
*Prerequisite: MUS 232*  
This course uses private lessons to continue instruction in beginning intermediate vocal technique, vocal vocabulary, performance experience and solo vocal repertoire.
MUS 234
Applied Voice IV (Private) (1 CR)
Prerequisite: MUS 233
This course uses private lessons to continue instruction in intermediate vocal technique, vocal vocabulary, performance experience and solo vocal repertoire.

MUS 236
Applied Piano I (Private) (1 CR)
This is an entry-level course for the student with little or no prior piano training. This course provides a basic knowledge of keyboard instruments. Students will learn essential musical terminology, musical notation and symbols, and specific piano-related terminology. Topics covered will include major and minor key signatures; exercises and repertoire using major and minor five-finger patterns; and exercises and repertoire using major and minor scales.

MUS 237
Applied Piano II (Private) (1 CR)
Prerequisite: MUS 236
This is a beginning-level course for the student with at least one semester of prior applied piano study. Students will learn the intermediate-level concepts of piano performance. Topics to be covered will include major scales and the natural and harmonic forms of the minor scales, rhythmic patterns and subdivisions of duple and triple meter and the basic keyboard literature of the intermediate level.

MUS 238
Applied Piano III (Private) (1 CR)
Prerequisite: MUS 237
This is an intermediate-level course for the student with at least two semesters of prior applied piano study. Students will learn the intermediate-level concepts of piano performance. Topics to be covered will include scale, the melodic form of the minor scale, rhythmic patterns and subdivisions of compound meter, and the basic keyboard literature of the intermediate level.

MUS 239
Applied Piano IV (Private) (1 CR)
Prerequisite: MUS 238
This is an advanced-level course for the student with at least two semesters of prior applied piano study. Students will learn the intermediate level concepts of piano performance. Topics to be covered will include Dorian and Mixolydian modes, pentatonic scales and performance of a Chopin etude.

MUS 241
Applied Guitar I (Private) (1 CR)
In this private study in basic guitar technique, emphasis will be upon playing position, posture, tone production and basic music reading skills. Students will begin with studies and short pieces.

MUS 242
Applied Guitar II (Private) (1 CR)
Prerequisite: MUS 241 or instructor approval
This is a continuation of private study in basic guitar technique. Emphasis will be
upon playing position, posture, tone production and basic music-reading skills. Students will begin with studies and short pieces.

**MUS 243**  
**Applied Guitar III (Private) (1 CR)**  
*Prerequisite: MUS 242 or instructor approval*  
In this private study in intermediate guitar technique, emphasis will be on playing position, posture, tone production and intermediate music reading skills. Students will progress toward playing literature requiring intermediate skill levels.

**MUS 244**  
**Applied Guitar IV (Private) (1 CR)**  
*Prerequisite: MUS 243 or instructor approval*  
In this continuation of private study in intermediate guitar technique, emphasis will be on playing position, posture, tone production and intermediate music reading skills. Students will progress toward playing literature requiring intermediate skill levels.

**MUS 246**  
**Applied Classical Guitar I (Private) (1 CR)**  
Private study in basic classical guitar technique and repertoire. Emphasis will be upon classical left- and right-hand technique, playing position, posture, tone production and standard classical guitar literature. Students will begin with studies and short pieces.

**MUS 247**  
**Applied Classical Guitar II (Private) (1 CR)**  
*Prerequisite: MUS 246 or instructor approval*  
This continuation of private study in basic classical guitar technique and repertoire will emphasize classical left- and right-hand technique, playing position, posture, tone production and standard classical guitar literature. Students will continue with studies and short pieces, then progress toward longer pieces with the intent of performing these in a recital situation.

**MUS 248**  
**Applied Classical Guitar III (Private) (1 CR)**  
*Prerequisite: MUS 247 or instructor approval*  
In this private study in intermediate classical guitar technique and repertoire, emphasis will be on classical left- and right-hand technique, playing position, posture, tone production and standard classical guitar literature. Students will progress toward playing and performing more advanced pieces and guitar studies.

**MUS 249**  
**Applied Classical Guitar IV (Private) (1 CR)**  
*Prerequisite: MUS 248 or instructor approval*  
This continuation of private study in intermediate classical guitar technique and repertoire will emphasize classical left- and right-hand technique, playing position, posture, tone production and standard classical guitar literature. Students will progress toward playing and performing more advanced pieces and guitar studies.
MUS 251
Applied Brass I (Private) (1 CR)
This is an entry-level course for the student with little or no experience in performing on a brass instrument. Through written exercises and performance on the instrument of choice, the student will learn the basic concepts of brass performance. Topics to be covered include tone production, basic musical intervals and major scales.

MUS 252
Applied Brass II (Private) (1 CR)
Prerequisite: MUS 251 or placement by instructor
This is a beginning-level course for the student with at least one semester of prior brass instrument study. Through written exercises and performance on the instrument of choice, the student will learn the beginning concepts of brass performance. Topics to be covered include embouchure development, minor scales and duple and triple rhythmic patterns.

MUS 253
Applied Brass III (Private) (1 CR)
Prerequisite: MUS 252 or placement by instructor
This is an intermediate-level course for the student with at least two semesters of prior brass instrument study. Through written exercises and performance on the instrument of choice, the student will learn the intermediate concepts of brass performance. Topics to be covered include the chromatic scale, quadruple rhythmic patterns and chord construction.

MUS 254
Applied Brass IV (Private) (1 CR)
Prerequisite: MUS 253 or placement by instructor
This is an advanced-level course for the student with at least three semesters of prior brass instrument study. Through written exercises and performance on the instrument of choice, the student will learn the advanced concepts of brass performance. Topics to be covered include the pentatonic scale, whole tone scale and melodic contours.

MUS 256
Applied Percussion I (Private) (1 CR)
This is an entry-level course for the student with little or no training in percussion instruments. The student will learn the beginning concepts of percussion performance. Topics to be covered include basic duple and triple rhythm, snare drum rudiments and basic snare drum performance patterns.

MUS 257
Applied Percussion II (Private) (1 CR)
Prerequisite: MUS 256 or placement by instructor
This is a beginning-level course for the student with at least one semester of prior instruction in percussion instruments. The student will learn beginning concepts of percussion performance. Topics to be covered include compound rhythm, snare drum rudiments and basic timpani skills.

MUS 258
**Applied Percussion III (Private) (1 CR)**

*Prerequisite: MUS 257 or placement by instructor*

This is an intermediate-level course for the student with at least two semesters of prior instruction in percussion instruments. The student will learn beginning concepts of percussion performance. Topics to be covered include snare drum rudiments, basic mallet percussion skills and suspended cymbal skills.

**MUS 259**

**Applied Percussion IV (Private) (1 CR)**

*Prerequisite: MUS 258 or placement by instructor*

This is an advanced-level course for the student with at least three semesters of prior instruction in percussion instruments. The student will learn advanced concepts of percussion performance. Topics to be covered include snare drum rudiments, crash cymbal techniques and drum set skills.

**MUS 261**

**Applied Woodwind I (Private) (1 CR)**

This is an entry-level course for the student with little or no experience performing on a woodwind instrument. Through written exercises and performance on the instrument of choice, the student will learn the basic elements of woodwind performance. Topics to be covered include tone production, basic intervals and major scales.

**MUS 262**

**Applied Woodwind II (Private) (1 CR)**

*Prerequisite: MUS 261 or placement by instructor*

This is a beginning-level course for the student with at least one semester of prior woodwind study. The student will learn beginning concepts of woodwind performance on the chosen instrument through written exercises and performance. Topics to be covered include embouchure development, minor scales and duple and triple meters.

**MUS 263**

**Applied Woodwind III (Private) (1 CR)**

*Prerequisite: MUS 262 or placement by instructor*

This is an intermediate-level course for the student with at least two semesters of prior woodwind study. The student will learn the intermediate concepts of woodwind performance through written exercises and performance. Topics to be covered include chromatic scale, quadruple rhythmic patterns and chord construction.

**MUS 264**

**Applied Woodwind IV (Private) (1 CR)**

*Prerequisite: MUS 263 or placement by instructor*

This is an advanced-level course for the student with at least three semesters of prior woodwind study. Through written exercises and performance, the student will learn the advanced concepts of woodwind performance. Topics to be covered include pentatonic scale, whole tone scale and melodic contour.

**MUS 266**

**Applied Harp I (Private) (1 CR)**
This course is the first college level course for harp students. The student will work in a studio setting with an instructor. Assignments will be based on the individual student’s readiness, but work will emphasize growth in areas of technical development, understanding musical styles, developing music vocabulary and building a performance repertoire. 1/2 hr./wk.

**MUS 267**  
**Applied Harp II (Private) (1 CR)**  
*Prerequisite: MUS 266*  
This course continues the work in Applied Harp I. The student will work in a studio setting with an instructor. Assignments will be based on the individual student’s readiness. Work will emphasize further growth in areas of technical development, understanding musical styles, developing music vocabulary and building a performance repertoire. 1/2 hr./wk.

**MUS 268**  
**Applied Harp III (Private) (1 CR)**  
*Prerequisite: MUS 267*  
This course continues the work in Applied Harp II. The student will work in a studio setting with an instructor. Assignments will be based on the individual student’s readiness. Work will emphasize further growth in areas of technical development, understanding musical styles, developing music vocabulary and building a performance repertoire. 1/2 hr/wk.

**MUS 269**  
**Applied Harp IV (Private) (1 CR)**  
*Prerequisite: MUS 268*  
This course continues the work in Applied Harp III. The student will work in a studio setting with an instructor. Assignments will be based on the individual student’s readiness. Work will emphasize further growth in areas of technical development, understanding musical styles, developing music vocabulary and building a performance repertoire. 1/2 hr./wk.

**Nursing (NURS)**

**NURS 124**  
**Foundations of Nursing (9 CR)**  
*Prerequisite: Admission to the Nursing Program and current certification in Kansas as Certified Nursing Assistant (CNA) and Cardiopulmonary Resuscitation Certification (CPR) for Health Care Providers and CHEM 122 and MATH 116 or higher level MATH course and corequisite: BIOL 144 and PSYC 130*  
This course is the first in a sequence of five nursing courses. Students will acquire nursing knowledge and skills necessary to care for patients across the health care continuum. Students will use a critical thinking approach to apply fundamental principles of nursing to patient care. In the clinical component, students will apply theoretical content and therapeutic interventions to patients with health alterations. Course instruction will occur in the classroom, online, in the health resource center and healthcare agencies. 4 hrs. lecture, 1 hr. lab, 15 hr. clinical/wk.  
**Associated Costs:** In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $540 to 565.

**NURS 126**  
**Nursing Care of the Adult: Health Alterations (9 CR)**
Prerequisite: BIOL 144 and PSYC 130 and NURS 124 and corequisite: PSYC 218

This course is the second in a sequence of five nursing courses. Students will build on fundamental nursing knowledge and skills acquired in the first nursing course to care for adult patients across the health care continuum. The content will emphasize nursing care of older adults experiencing complex multi-system conditions. The content will also include nursing care for young, middle-aged, and older adults experiencing alterations in mental health. The student will use a critical thinking approach to apply concepts of adaptation, nursing process, therapeutic interactions, communication, and teaching/learning in the care of the culturally diverse patient. In the critical component, students will apply theoretical content and therapeutic nursing interventions to patients with acute and chronic health alterations. Course instruction will occur in the classroom, online, in the health resource center and health care agencies. 4 hrs. lecture, 1 hr. lab, 15 hr. clinical/wk.

NURS 136
LPN-RN Transition Course (6 CR)
Prerequisite: Completion of LPN program, Current Cardiopulmonary Resuscitation Certificate (CPR) for Health Care Providers and CHEM 122 and MATH 116 or higher and either BIOL 144 or BIOL 140 and BIOL 225 and ENGL 121 and PSYC 130 and PSYC 218

This course is an introduction to the second year of the associate degree nurse (ADN) program for graduates of licensed practical nurse (LPN) programs. The content will emphasize nursing care for patients experiencing alterations in mental health and complex multi-system conditions. The student will use a critical thinking approach to apply concepts of adaptation, nursing process, therapeutic interactions, and teaching/learning in the care of the patient. An in-depth examination of physical assessment and psychomotor/communication skills will prepare the student for transition to the associate degree nursing program. Course instruction will occur in the classroom, online, in the health resource center, and health care agencies. 15 hrs. lecture, 1 hr. lab/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $320.

NURS 228
Nursing Care of the Childbearing Family (5 CR)
Prerequisite: ENGL 121 and PSYC 218 and NURS 126 and corequisite: BIOL 230 and either SOC 122 or SOC 125 and NURS 230

This course is the third or fourth in a sequence of five nursing courses. Students will acquire nursing knowledge and skills necessary to care for the childbearing family. Common alterations, stressors in the family, cultural sensitivity and the art of nursing will be emphasized during the antepartum, intrapartum, postpartum and newborn periods. Students will use principles of therapeutic communication, critical thinking, and teaching/learning to apply nursing process to both normal and high-risk mothers and newborns. In the clinical component, students will apply theoretical content and therapeutic nursing interventions with a caring approach to a culturally diverse population. Course instruction will occur in the classroom, online, in the health resource center and health care agencies. This course will be taken in the same semester with NURS 230, Nursing Care of Children. 4 hrs. lecture, 1 hr. lab, 15 hrs. clinical/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $160.

NURS 230
Nursing Care of Children (5 CR)
Prerequisite: ENGL 121 and PSYC 218 and NURS 126 and corequisite: BIOL 230 and SOC 122 or SOC 125 and NURS 228

This course is the third or fourth in a sequence of five nursing courses. Students will acquire nursing knowledge skills necessary to care for infants through adolescents on a continuum of health and adaptation that may result in acute or chronic illness. Students will use principles of therapeutic communication, psychosocial concepts, growth and development, critical thinking, and
organization to apply the nursing process to culturally diverse populations. In the clinical component, students will apply theoretical content and therapeutic nursing interventions to infants/children/adolescents with acute and/or chronic health alterations. Course instruction will occur in the classroom, online, in the health resource center and health care agencies. 4 hrs. lecture, 1 hr. lab, 15 hrs. clinical/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $160.

NURS 232
Complex Patient Care Management (9 CR)
Prerequisite: NURS 228 and NURS 230
This course is the last in a sequence of five nursing courses that will enable students to care for patients experiencing complex multi-system health alterations across the health care continuum. Students will use a critical thinking approach to apply concepts of management to a group of patients in a health care setting. This course integrates knowledge and skills acquired in the previous four courses and facilitates student transition to professional nursing practice. In the clinical component, students will apply theoretical content and therapeutic nursing interventions to a group of patients/families with complex, acute and chronic health alterations. Course instruction will occur in the classroom, online, in the health resource center and health care agencies. 4 hrs. lecture, 1 hr. lab, 15 hrs. clinical/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $450 to 550.

NURS 234
Registered Nurse Refresher (9 CR)
Prerequisite: Previously licensed as a registered nurse. Corequisite: Current CPR certification for health care providers
The course will prepare the Registered Nurse (RN) to reenter the acute health care setting for employment after an absence from the profession of 3-5 years. The course will review common health illnesses of the adult and provide a review of systems. 5 hrs lecture, 4 hrs. lab/wk. 80 hrs. theory and 180 hrs. clinical

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $2010 to 2100.

NURS 236
Registered Nurse Perioperative Nursing (3 CR)
Prerequisite: Currently licensed as a Registered Nurse an Current CPR certification for health care providers Corequisite: Could possibly complete CPR while taking this course
This course will prepare the novice perioperative registered nurse (RN) or the RN desiring to enhance employment opportunities in the perioperative setting with basic didactic perioperative content. The course will provide the rationale and theory needed to provide safe patient care in the perioperative setting as an operating room nurse. The course is designed to supplement clinical practice. 2 hrs lecture 1 hr. lab/wk.

NURS 238
Registered Nurse Perioperative Clinical (2 CR)
Currently licensed as a Registered Nurse and current CPR certification for health care providers and Corequisite: NURS 236
This course will prepare the novice registered nurse (RN) desiring to enhance employment opportunities in the perioperative setting with basic perioperative skill competencies. The clinical practice will be in the perioperative setting to provide a realistic experience for the student. 192 clinical hours
Occupational Therapy Assistant (KOT)

KOT 100
Introduction to Occupational Therapy (2 CR)
Introduction to the history, philosophy and practice of occupational therapy. Exploration of diversity and the role it plays in health care. 2 hrs. lecture/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of the occupational therapy assistant program about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KOT 102
Documentation Guidelines (2 CR)
Prerequisite: Formal admission into the occupational therapy assistant program
Guidelines for documentation of occupational therapy services. 2 hrs. lecture/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of the occupational therapy assistant program about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KOT 103
Clinical Conditions (2 CR)
Prerequisite: Formal admission into the occupational therapy assistant program
Etiology, clinical process and prognosis of common diseases and illnesses. Effect of disease or illness on an individual’s performance and the impact this has on the person, family and society. 2 hrs. lecture/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of the occupational therapy assistant program about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KOT 106
Therapeutic Interventions I (4 CR)
Prerequisite: Formal admission into the occupational therapy assistant program
Basic therapeutic interventions, techniques, applications and legislation pertinent to OT practice. Learn OT's role in promoting health and wellness. 2.5 hrs. lecture, 3 hrs. lab/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of the occupational therapy assistant program about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KOT 112
Basic Emergency Patient Care (1 CR)
This course introduces current cardiopulmonary resuscitation skills, including adult, child and infant resuscitation, according to American Heart Association standards. Medical and environmental emergencies are reviewed. 1 hr. lecture/wk. Course taught at Penn Valley Community College. Students should contact the Penn Valley coordinator of the occupational therapy assistant program about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KOT 116
Level I Fieldwork I (1 CR)
Prerequisite: Formal admission into the occupational therapy assistant program
Introduction to the role, policies and procedures of fieldwork. Directed experience in a specified community setting. 0.5 hr. lecture, 1 hr. lab/ wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of the occupational therapy assistant program about the class meeting
KOT 118

Assistive Technology (2 CR)
Prerequisites: BIOL 144 and BIOL 145, KOT 112, KOT 100 102, 103, 106 and 116

Hands-on introduction to high-tech assistive technology and augmentative communication. 1 hr. lecture, 2 hrs. lab/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of the occupational therapy assistant program about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KOT 120

Pediatrics (3 CR)
Prerequisite: KOT 112, BIOL 144 and BIOL 145 and KOT 100 KOT 102, KOT 103, KOT 106 and KOT 116

Occupational therapy practice as it relates to individuals from birth to early adolescence. Study of normal growth and development. 3 hrs. lecture/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of occupational therapy assistant about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KOT 121

Level I Fieldwork II
Prerequisite: BIOL 144 and BIOL 145, KOT 112, and KOT 100, KOT 102, KOT 103, KOT 106 and KOT 116 and concurrent enrollment in KOT 120

Directed experience in a specified community setting. Course is .5 credit hour. 1 hr. clinical/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of the occupational therapy assistant program about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KOT 130

Analysis of Physical Performance (3 CR)
Prerequisites: KOT 112, BIOL 144 and BIOL 145, KOT 100, KOT 102 KOT 103 KOT 106 and KOT 116

Analysis and evaluation of the components of physical performance and their relationship to functional activities. 2 hrs. lecture, 2 hrs. lab/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of the occupational therapy assistant program about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KOT 154

Applied Neurology (2 CR)
Prerequisites: KOT 112, BIOL 144 and BIOL 145, KOT 100, KOT 102, KOT 103, KOT 106 and KOT 116

Foundations of neuroscience necessary for practice as a rehabilitation professional. Correlation of Clinical problems with pathology of the nervous system. 2 hrs. lecture/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of the occupational therapy assistant program about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KOT 173

Special Topics (2 CR)
Prerequisites: Concurrent enrollment in physical therapy assistant or
occupational therapy assistant programs or completion of an associate or advanced degree in physical therapy or occupational therapy

A study of advanced topics relevant to the current practice of rehabilitation. Cross listed as KPT 173. 2 hrs. lecture/wk. Course taught at Penn Valley Community College. Students should contact the Penn Valley coordinator of the occupational therapy assistant program about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KOT 201

Mental Health (2.5 CR)
Prerequisites: KOT 118 and KOT 120 and KOT 121 and KOT 130 and KOT 154
Occupational therapy assessment and treatment techniques in the mental health setting. 2 hrs. lecture. 1 hr. lab/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of the occupational therapy assistant program about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KOT 202

Physical Dysfunction (3 CR)
Prerequisites: KOT 118 and KOT 120 and KOT 121 and KOT 130 and KOT 154
Occupational therapy assessment and treatment used with the physically and cognitively challenged population. 3 hrs. lecture/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of the occupational therapy assistant program about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KOT 203

Gerontology (3 CR)
Prerequisites: KOT 118 and KOT 120 and KOT 121 and KOT 130 and KOT 154
Concepts and processing of aging. The role of occupational therapy with the elderly. 3 hr. lecture/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of the occupational therapy assistant program about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KOT 208

Therapeutic Interventions II (2 CR)
Prerequisite: KOT 118 and KOT 120 and KOT 121 and KOT 130 and KOT 154
Advanced therapeutic interventions and techniques used to enhance functional ability and independence in daily life tasks and occupations. 1 hr. lecture, 2 hrs. lab/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of the occupational therapy assistant program about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KOT 212

Level I Fieldwork III (2 CR)
Prequisite: KOT 118 and KOT 120 and KOT 121 and KOT 130 and KOT 154
Directed experience in specified community settings. 4 hrs. clinical/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of the occupational therapy assistant program about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KOT 217

Fieldwork Seminar (3 CR)
Prerequisite: KOT 118 and KOT 120 and KOT 121 and KOT 130 and KOT 154
Preparation for full-time clinical practice, the national certification process, state licensure, and future employment. 3 hrs. lecture/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of the occupational therapy assistant program about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KOT 222
Level II Fieldwork (12 CR)
Prerequisite: KOT 201, KOT 202, KOT 203, KOT 208 and KOT 212 and KOT 217
Directed clinical experience in different practice areas of occupational therapy. 40 hrs. field studies/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of the occupational therapy assistant program about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

Philosophy (PHIL)

PHIL 121
Introduction to Philosophy (3 CR)
Students will examine the basic questions of philosophical inquiry, such as the nature of being, and the ways humans acquire knowledge and moral, social, religious and political values. Emphasis is on the application of the study of traditional problems of philosophy to the study of contemporary society. 3 hrs./wk.

PHIL 124
Logic and Critical Thinking (3 CR)
This course is an inquiry into techniques of persuasion and the standards for interpretation and assessment that are the basis for critical thinking. Argumentative and non-argumentative forms of persuasion are examined, including propaganda, exaggeration, stereotyping, slanted news and common fallacies. In addition, the course offers standards for evidential warrants based on samples, probabilities and causal claims. Relations between categorical propositions and Venn diagrams are examined and, finally, the course suggests strategies for fresh attacks on conceptual problems. 3 hrs./wk.

PHIL 138
Business Ethics (1 CR)
This course applies classical and contemporary theories of morality to problems, questions and dilemmas arising in business. Using the major concepts and principles of deontological, consequentialist and perfectionist theories, it examines and analyzes cases involving such areas as employer/employee relations, corporate responsibility, truth telling in business and workplace diversity. Emphasis is on the development of moral reasoning skills that allow for meaningful analysis and evaluation of moral situations. 1 hr./wk.

PHIL 143
Ethics (3 CR)
This course provides a systematic and critical study of values related to human conduct. It focuses on both traditional standards of ethical conduct and qualities of personal character. What we hold to be right or wrong, the basis for believing so, and what we consider to be virtues or vices are examined with an eye to understanding our current ethical situation. 3 hrs./wk.
PHIL 154
History of Ancient Philosophy (3 CR)
This course provides a thorough exploration of ancient Greek and Roman philosophical thought from the original efforts of the Pre-Socratics to understand the fundamental operations of the natural world to concerns about the way a person might live successfully in nature and society. Also explored are the notable Athenians of the classical period, Protagoras, Socrates, Plato and Aristotle, and the later schools of thought such as cynicism, skepticism, hedonism and stoicism. In the process, it provides a comprehensive understanding of the philosophical foundations of the Western world view. 3 hrs./wk.

PHIL 161
Elementary Symbolic Logic (3 CR)
This course is a beginning course in symbolic logic and should be of particular benefit to those students who will pursue more advanced studies in linguistics, philosophy of language, mathematics or computer science. Students will be introduced to modern analytical techniques of formal deductive logic. Students should gain the ability to use a formal language to translate English language arguments and the ability to demonstrate the validity or invalidity of symbolic arguments using the techniques of truth-table analysis and formal proof. Some attention will also be given to the historical development of symbolic logic. 3 hrs./wk.

PHIL 176
Philosophy of Religion (3 CR)
This course is an inquiry into the nature of religion, religious thought and religious language. It addresses philosophical topics such as the nature of religious belief, the apparent need of some people for religion, the arguments offered as proof for and against the existence of God, apparent contradictions between scientific and religious teachings, special problems raised by religious language, and the changes religion and philosophy of religion have made to accommodate a modern world view. 3 hrs./wk.

PHIL 210
History of Modern Philosophy (3 CR)
Prerequisite: PHIL 121 or PHIL 143 or HIST 125 or HIST 126
This course takes a historical approach to the development of modern philosophy and covers the period from the Renaissance to the 20th-century. The course will cover the epistemological, metaphysical and relevant axiological issues of the major philosophers and philosophical movements of this period. The course will also examine the influence of modern philosophy on contemporary thought. 3 hrs. lecture/wk.

Photography (PHOT)

PHOT 121
Fundamentals of Photography (3 CR)
This course provides an introduction to the tools, procedures, concepts and application of photographic imaging. Students will use cameras, light meters and darkroom equipment for film developing and printing to make images to meet the requirements of a series of assignments designed to develop specific skills, competencies and points of view and to stimulate the students’ creative capacities for personal expression, communication and self-understanding. Students must provide their own camera with adjustable focus, shutter speeds and aperture. 6 hrs. lecture, lab/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this
course has additional expense considerations that are estimated to be $100 to 150.

PHOT 122
Advanced Photography (3 CR)
Prerequisite: PHOT 121
This course provides an introduction to advanced techniques, tools, procedures and concepts of photographic imaging, with an emphasis on black-and-white photography as a fine art. Students will use Zone System tests and procedures to produce prints of maximum quality. Students will use advanced techniques, such as split-developers for contrast control, multiple-imaging and archival processing, and print presentation. Several “alternative” printing processes will be discussed and demonstrated. This course also includes a basic introduction to medium format (2 1/4) and large format (4 x 5) camera equipment and technique. Students will apply the above to make images for a series of conceptually advanced, project/series-oriented assignments to stimulate the student’s creative capacities for personal expression, communication and self-understanding. 6 hrs. lecture, lab/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $100 to 150.

PHOT 123
Studio Photography (3 CR)
Prerequisite: PHOT 121
This course provides an introduction to advanced techniques, tools, procedures and concepts of studio and commercial photography. Students will use professional camera and studio equipment, including studio electronic flash and hand-held light/flash meters. This course also includes an introduction to professional medium format (2 1/4) and large format (4"x5") equipment and advanced camera techniques for total image control. Students will use studio lighting for various portraiture styles and for small-product, table-top photography. Applications of digital photography as they apply to studio photographic processes will be introduced. Students will apply the above to make images for a series of advanced studio assignments. 6 hrs. lecture, lab/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $75 to $150.

PHOT 125
Photography for Publication (3 CR)
Prerequisite: PHOT 121
This course provides an introduction to the concepts and application of photographic imaging for media publication. Students will use cameras, computers, software, scanners and image-output devices to master the issues, concepts and constraints involved in creating images for a broad range of publication needs. They will prepare and format digitized image files for storage, transmission and print-based and Web-based reproduction. This course is designed to meet the photographic imaging needs of journalism students. 6 hrs. lecture, lab/wk.

PHOT 127
Color Photography (3 CR)
Prerequisite: PHOT 121
This course provides an introduction to the materials, techniques, tools, processes and theories of color photography. Students will use various color film emulsions, chemicals, filters for color-balance corrections, enlargers with integral color-heads with dial filtration, a pro-lab quality processor, color printing papers, and quality controls and manipulations to produce professional-quality color enlargements and transparencies. Students will use the above to make color images to meet the requirements of a series of assignments designed to develop specific skills,
competencies and points of view and to stimulate the students’ creative capacities. 6 hrs. lecture, lab/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $75 to 150.

PHOT 128
Digital Photography (3 CR)
This course is an introduction to the concepts, tools and technology of digital imaging for photographers. Students will develop competence in the use of digital photographic equipment, software, storage devices and printers to produce digital photographic images satisfying the requirements of a series of assignments designed to develop specific skills and competencies. Students will "capture," manipulate, correct, transmit, store and output images. They will use digital technology to produce images for commercial and/or artistic applications. Ethics and cultural implications of the technology will be discussed. 6 hrs. lecture, lab/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $75 to 150.

PHOT 140
History of Photography (3 CR)
This course provides an introduction to the history of photography. Students will examine the aesthetic and technological evolution of photography as an art form, as a visual tool for and influence upon other artistic disciplines, and as a statement of perceived reality. The course will examine the elements that distinguish various aesthetic movements, the styles of major periods and the influences of individual photographers. Attention will be paid to the relationship between photographic imagery and various cultural and historical contexts. Recommended prior course is PHOT 121. 3 hrs. lecture/wk.

Physical Ed, Health & Rec (HPER)

HPER 100
Basketball (Beginning) (1 CR)
Students will have an opportunity to learn fundamental basketball skills through demonstration and discussion of strategies for team play. Emphasis is on individual participation. 2 hrs./wk.

HPER 101
Basketball (Intermediate) (1 CR)
Prerequisite: HPER 100
Students will have an opportunity to learn intermediate basketball skills through demonstration and discussion of strategies for team play. This course will advance the skills of the student who successfully completed the beginning basketball course. Emphasis is on individual participation and competition team play. 2 hrs./wk.

HPER 102
Navigation 102: Orientation at JCCC (1 CR)
This course is designed to help students transition from past experiences to college life. The topics will focus on four key areas, including practical life skills, wellness-related presentations, working with diverse individuals and groups, and academic skills enhancement. Thus, the goal of this course is to provide students with a valuable living and learning experience that equips them with the tools necessary to be academically successful and remain in school. This course will help students "navigate" through their first semester at JCCC. 2 hrs. lecture/wk.
This course may be offered as a Learning Communities (LCOM) section, see
current credit schedule for LCOM details.

**HPER 103**
**Touch/Flag Football** (1 CR)
The fundamentals of touch and flag recreational football will be introduced as well as strategies necessary for team play. 2 hrs./wk.

**HPER 104**
**Yoga** (1 CR)
This class will utilize techniques from yoga which aim to provide mind/body benefits including better posture and increased body awareness. Muscular strength and flexibility will be developed through poses and positions. This class will be geared towards all students, both beginners as well as those who have previous training. 3 hrs. activity/wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $12 to 15.

**HPER 105**
**Bowling (Beginning)** (1 CR)
The student will have the opportunity to learn and practice the fundamentals of bowling. The student will be introduced to the history of the game, rules, equipment and lane specifications, scoring, handicap calculations, and operation of automatic scoring equipment. 2 hrs./wk. HPER mini-courses meet an additional 16 hours on a modular schedule.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $0 to 34.

**HPER 107**
**Bowling (Intermediate)** (1 CR)
Prerequisite: HPER 105
Students will demonstrate advanced fundamentals of bowling. The student will acquire advanced knowledge of the history of the game, rules, equipment and lane specifications. Intermediate to advanced bowling competition will be explored. 2 hrs./wk. HPER mini-courses meet an additional 16 hours on a modular schedule.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $0 to 34.

**HPER 110**
**Racquetball (Beginning)** (1 CR)
A brief history of rules and terminology of racquetball will be followed by instruction and actual practice and application of the fundamentals. 2 hrs./wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $45 to 200.

**HPER 112**
**Racquetball (Intermediate)** (1 CR)
Prerequisite: HPER 110
Students will review the rules and terminology of racquetball, as well as demonstrate the basic skills. The student will demonstrate skills and strategies in a competitive format and use the mental preparation and conditioning aspects of the game of racquetball. The intermediate racquetball student will apply skills in a competitive format. 2 hrs./wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $45 to 200.
HPER 115
Soccer (1 CR)
The fundamentals of soccer will be introduced as well as strategies necessary for team play. 2 hrs./wk.

HPER 117
Power Volleyball (Beginning) (1 CR)
The basic skills of volleyball taught in this class include the forearm pass, overhead set, serve, block and spike (attacking). Elementary offense and defense along with volleyball rules, scoring and officiating will be covered. 2 hrs./wk.

HPER 118
Power Volleyball (Intermediate) (1 CR)
Prerequisite: HPER 117
Students will have the opportunity to build upon the basic fundamentals of the Power Volleyball (Beginning) class. Intermediate skills, strategies, offensive and defensive systems and rules will be covered for six-player, four-player, three-player, and two-player volleyball. 2 hrs./wk.

HPER 130
Running Awareness and Exercise (1 CR)
The course will introduce the student to aerobic fitness through the activity of running. The training principles for running and competitive racing will be covered, and the individual will complete a personal running and/or racing training program. 2 hrs./wk.

HPER 134
Weight Training (Beginning) (1 CR)
In this class, muscular strength and endurance will be developed through weight training activity. A workout program will be implemented for each student. The muscular system, basic terminology of weight training and weight training theory will be discussed. 2 hrs./wk.

HPER 135
Weight Training (Intermediate) (1 CR)
Prerequisite: HPER 134
In this class, muscular strength and endurance will be developed. A self-designed and directed resistance workout program will be implemented. The proper use of a training log and personal fitness evaluation techniques will be discussed. 2 hrs./wk.

HPER 137
Tennis (Beginning) (1 CR)
Students will get individualized instruction in this course on the rules, terminology and history of tennis. The student will receive instruction on the basic strokes of tennis, as well as the strategies of singles and doubles play. 2 hrs./wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $30 to 40.
Tennis (Intermediate) (1 CR)
Prerequisite: HPER 137
Students will review the rules, terminology and history of tennis. The student will receive instruction on the strokes of tennis, as well as the strategies of singles and doubles play in a competitive format. Emphasis will be on the mental and physical conditioning of the game. 2 hrs./wk. HPER mini-courses meet an additional 16 hours on a modular schedule.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $30 to 40.

HPER 140
Modern Dance (Beginning) (1 CR)
This course emphasizes the movement between positions rather than the picture-perfect poses of ballet and other dance styles. Moving through space off of and onto the floor, breathing and moving improvisationally will be explored. 2 hrs./wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $12 to 40.

HPER 142
Modern Dance (Intermediate) (1 CR)
Prerequisite: HPER 140
A continuation of Modern Dance (Beginning), this course presents more difficult and longer movement combinations. Students further explore their creativity through elements of improvisations, choreography and performance while gaining greater muscular flexibility and strength. 2 hrs./wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $12 to 40.

HPER 150
Aerobics (Beginning) (1 CR)
Motor skills, jogging and dance steps are combined in this exercise program to improve muscle tone and cardiovascular fitness. 2 hrs./wk. HPER mini-courses meet an additional 16 hours on a modular schedule.

HPER 152
Aerobics (Intermediate) (1 CR)
Prerequisite: HPER 150
The motor skills, jogging and dance steps are performed at faster pace for a longer period of time than in Aerobics (Beginning). The course will introduce the student to the fitness benefits from increased duration and intensity of aerobic activities. 2 hrs./wk. HPER mini-courses meet an additional 16 hours on a modular schedule.

HPER 155
Ballet (Beginning) (1 CR)
This progressive ballet system is designed to produce muscular strength and flexibility and a working knowledge of anatomy, plus the aesthetic satisfaction of expressing yourself through a classical art form. Offered to students of all ages and experience, both beginners as well as those who have had some training. 2 hrs./wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $17 to 30.

HPER 157
Ballet (Intermediate) (1 CR)
Prerequisite: HPER 155
A continuation of Beginning Ballet, this progressive ballet system explores multilayered ballet movement in simple dance combinations. 2 hrs./wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $17 to 30.

HPER 158
Jazz Dance (Beginning) (1 CR)
An introduction to the concepts and motor skills involved with jazz dance. Basic body position will be introduced as well as basic terminology, jazz history, various jazz styles and the basic techniques involved, isolations, combinations, choreography and rhythmic influences. 2 hrs./wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $7 to 30.

HPER 159
Jazz Dance (Intermediate) (1 CR)
Prerequisite: HPER 158 or equivalent
A continuation of Beginning Jazz Dance, this course will require students to assimilate and execute more difficult isolated dance moves as well as use the basic skills acquired in Beginning Jazz Dance to perform complex dance sequences to a variety of music. 2 hrs./wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $7 to 30.

HPER 163
Ballroom Dance (Beginning) (1 CR)
This is an introduction to ballroom dance with emphasis on basic patterns and fundamental steps of the waltz, fox trot, swing, polka and cha-cha. Common rules of dance courtesy and a brief overview of ballroom dance history will be included. Music or dance background is not necessary. 2 hrs./wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $20 to 40.

HPER 165
Karate I (1 CR)
The student will receive instruction in the basic fundamentals of karate, including stances, blocks, kicks, strikes and self-defense techniques. 2 hrs./wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $20 to 30.

HPER 166
Karate II (1 CR)
Prerequisite: HPER 165
The student will review the skills from the prerequisite course of Karate I. Students will demonstrate techniques that include the moving block, kicks and positions for karate. The course will also cover combination moves as well as the defensive technique.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $20 to 30.

HPER 167
Karate III (1 CR)
Prerequisite: HPER 166
Students will have the opportunity to achieve higher levels of proficiency, routines, kumite (sport/free fighting) and self-defense. 2 hrs./wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $20 to 30.
HPER 168
Karate IV (1 CR)
Prerequisite: HPER 167 Note: Beginning Japanese is a suggested prerequisite
Students in this course will have the opportunity to achieve the advanced level of karate in the following: taiso (exercise), kata (forms), kumite (sport/free fighting) and self-defense application. 2 hrs./wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $20 to 30.

HPER 172
Track and Field (Beginning) (1 CR)
This course will introduce the student to the sport of track and field. Through activity and discussion the student will improve his or her motor ability to perform track and field events. 2 hrs./wk.

HPER 174
Coaching and Officiating of Track and Field (2 CR)
Students will have the opportunity to learn the fundamentals of coaching and officiating track and field events. Upon successful completion of the course, students will be prepared for USATF Level 1 certification. 2 hrs./wk.

HPER 175
Fencing (1 CR)
Beginning foil fencing will provide the student with the fundamental rules and techniques of foil fencing. The student will utilize these skills in a fencing bout. The student will also be instructed in the rules and procedures of officiating foil fencing. 2 hrs./wk.

HPER 180
Fencing (Intermediate) (1 CR)
Prerequisite: HPER 175
Intermediate fencing will provide the student with advanced techniques and rules of foil fencing and with fundamental techniques and rules of epee fencing. The student will utilize these skills in a fencing competition. The student will also be instructed in the rules and procedures of refereeing foil fencing and organization of fencing competitions. 2 activity hrs./wk.

HPER 182
Swimming (Beginning) (1 CR)
Students in beginning swimming will learn basic swimming skills and safety information that are fundamental to safe swimming performance. 1 hr./wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $25 to 70.

HPER 183
Swimming (Intermediate) (1 CR)
Prerequisite: HPER 182 or the equivalent
Students in intermediate swimming will learn more advanced swimming strokes, skills and safety information along with increasing personal fitness levels through continuous endurance swimming. 1 hr./wk.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $25 to 70.
HPER 185
Archery (1 CR)
Students will receive individualized instruction in the basic skills of archery as a recreational sport lending itself as a lifetime leisure interest. Safety, fundamental care and usage of archery tackle and beginning archery skills will be taught along with a survey of the history of archery. 2 hrs./wk. HPER 185 Archery classes will meet in the lobby in the gym building by room 116.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $10 to 20.

HPER 190
Golf (1 CR)
The beginning golfer will be given instruction in the rules of and basic swing fundamentals for the game of golf. Proper golf equipment, proper use of this equipment and golf etiquette will be reviewed. 2 hrs./wk. HPER mini-courses meet an additional 16 hours on a modular schedule.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $80 to 400.

HPER 192
Wellness for Life (1 CR)
This course introduces students to the theory and principles upon which the concepts of lifetime fitness and wellness are based. Students will examine the relationship that exists between wellness and lifestyle behaviors. Individual self-assessments will be used to establish current health and fitness levels. 1 hr./wk.

HPER 194
Sports Conditioning (Beginning) (1 CR)
Students will have the opportunity to learn the fundamentals of general and sports specific conditioning. All aspects of physical and psychological development are incorporated in this class. Strength, power, speed, acceleration, muscular hypertrophy and endurance, cardiovascular endurance, motor skills and agility drills are taught and practiced. The class will include general physical preparation sport fitness, plyometrics, agility drills and sport-related specific conditioning. The students will learn about the principle of year-round conditioning, including conditioning appropriate to the off-season, preparatory period, pre-competition period and competition period. 2 hrs./wk.

HPER 197
Sports Conditioning (Intermediate) (1 CR)
Prerequisite: HPER 194
Students will have the opportunity to build upon principles and practices of general and sports-specific conditioning learned in Beginning Sports Conditioning. All aspects of physical and psychological development are incorporated in this class. Strength, power, speed, acceleration, muscular hypertrophy and endurance, cardiovascular endurance, motor skills and agility drills are taught and practiced. The class will include general physical preparation, sport fitness and conditioning. Students will continue to learn about the principle of year-round conditioning, including conditioning appropriate to the off-season, preparatory period, pre-competition period and competition period. 2 hrs. lecture/wk.

HPER 200
First Aid and CPR (2 CR)
After completing this course, students should be able to perform the basic skills of first aid. The course will cover cause, prevention and first aid care of common emergencies. Certification may be earned in first aid and cardiopulmonary
resuscitation. 2 hrs./wk.

**HPER 202**  
**Personal Community Health** (3 CR)  
This course is designed to provide the student with the knowledge and understanding to make positive, healthy lifestyle choices. In addition, students will learn about issues within the community that affect their daily health both directly and indirectly. 3 hrs./wk.

**HPER 204**  
**Care and Prevention of Athletic Injury** (3 CR)  
*Corequisite: HPER 200 or BIOL 140*  
This introduction to athletic training techniques is for student athletic trainers and coaches and athletes at all levels. The course will cover prevention of sports injuries, rehabilitation and taping techniques, and proper nutrition. 3 hrs./wk.

**HPER 205**  
**Individual Lifetime Sports** (2 CR)  
This course provides a basic knowledge of several individual lifetime sports including badminton, bowling, golf, racquetball and tennis. Students will learn fundamental skills for each sport as well as history, benefits, equipment, rules, etiquette, safety, scoring and strategy. 3 hrs./wk. Fall.

**HPER 208**  
**Introduction to Exercise Physiology** (3 CR)  
This introduction to exercise physiology will introduce the effects of exercise on the muscular system, the cardiovascular system and the metabolic system. The course will prepare the student in the design of and principles for an individual exercise program. 3 hrs./wk.

**HPER 217**  
**Coaching and Officiating Basketball** (2 CR)  
This course introduces students to the theory and principles of coaching basketball and the rules and mechanics of officiating. Students will have the opportunity to learn how to organize, coach and plan daily practice sessions. 2 hrs./wk.

**HPER 220**  
**Sports Officiating** (3 CR)  
The rules and practical application of officiating will be covered for the following sports: volleyball, football, basketball, baseball and softball. 3 hrs./wk.

**HPER 224**  
**Outdoor Recreation** (3 CR)  
This course introduces the student to activities that create interaction between the individual and/or individuals and elements of the outdoor recreational setting. This outdoor recreation class will plan activity projects such as camping, hiking, nature observation, alpine skiing, Nordic skiing and biking. 3 hrs./wk. Or, may be taught online for 16 weeks.
HPER 240  
**Lifetime Fitness I (1 CR)**
This course is designed to provide an effective exercise circuit system to help the student develop overall muscle tone and cardiovascular conditioning. Handouts emphasizing the value of developing a total lifetime fitness attitude and optional lectures are available to enhance the student’s knowledge of the benefits of a lifetime fitness program. This course requires an initial orientation/assessment. After the assessment, the class becomes an open-lab format by arrangement. 2 hrs./wk.

HPER 241  
**Lifetime Fitness II (1 CR)**
*Prerequisite: HPER 240*
This course is a continuation and expansion of Lifetime Fitness I. 2 hrs./wk., open-lab format by arrangement.

HPER 242  
**Lifetime Fitness III (1 CR)**
*Prerequisite: HPER 241*
This course is a continuation and expansion of Lifetime Fitness II. 2 hrs./wk., open-lab format by arrangement.

HPER 243  
**Lifetime Fitness IV (1 CR)**
*Prerequisite: HPER 242*
This course is a continuation and expansion of Lifetime Fitness III. 2 hrs./wk., open-lab format by arrangement.

HPER 245  
**Elementary Physical Education (3 CR)**
This course is designed to meet the needs of students who wish to teach in the area of elementary physical education and/or elementary education. This course will provide the students with knowledge and background in planning, classroom management techniques, teaching methodology, legal liability, evaluation, wellness, special students, sports, and games related to elementary physical education. The course will include observation and teaching. 3 hrs./wk. Spring.

HPER 255  
**Introduction to Physical Education (3 CR)**
This course will introduce the student to the field of physical education and sport. This course will discuss the historical, biomechanical, physiological and psychological foundations of physical education and sport. It will examine the role of physical activity as a means to help individuals acquire the skills, fitness levels and knowledge that contribute to the arena of physical development and organized competition. It will also discuss the role physical education and sports play in our society. Each individual will develop a personal philosophy for physical education and sports. 3 hrs./wk. Spring.

**Physical Science (PSCI)**
PSCI 120  
Physical Science (4 CR)  
This course is an introduction to the fundamental concepts and principles of physics, chemistry, geology and astronomy. Topics include energy, electricity, magnetism, modern physics and chemical bonding. It is counted toward laboratory science requirements and is intended for non-science majors. It includes presentation of material using audiovisual, computer and other multimedia aids. Three hours of class and three hours of work in a scheduled lab are required each week. 3 hrs. lecture, 3 hrs. lab/wk.

Physical Therapist Assistant (KPT)  

KPT 102  
Basic Emergency Patient Care (1 CR)  
Current cardiopulmonary resuscitation skills, including adult, child and infant resuscitation according to American Heart Association standards. Medical and environmental emergencies review. (Successful completion of the course qualifies the student for the Basic Life Support Course Certification.) 1 hr. lecture/wk. Course taught at Penn Valley Community College. Students should contact the Penn Valley coordinator of the physical therapist assistant program about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KPT 151  
Introduction to Physical Therapy (2 CR)  
Introduction to the basic concepts of the function of a physical therapist and physical therapist assistant as members of the health team and interaction of health care disciplines in the care of the patient. Medical terminology related to the specific discipline. 2 hrs. lecture/wk. Course taught at Penn Valley Community College. Students should contact the Penn Valley coordinator of the physical therapist assistant program about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KPT 152  
Physical Therapy Fundamentals I (4 CR)  
Prerequisite: Formal acceptance into the program.  
Theory and application of treatment modalities used in physical therapy. Therapeutic measures and patient handling skills used in the physical treatment of various injuries and diseases. Field trips to observe the clinic and its modalities. 2.5 hrs. lecture, 3 hrs. lab/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of the physical therapist assistant program about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KPT 153  
Kinesiology (4 CR)  
Prerequisites: BIOL 144, BIOL 145, KPT 152 and KPT 160  
Anatomy and function of the musculoskeletal system. Analysis of various daily activities. Application of physical therapy assessment procedures related to clinical kinesiology. 2 hrs. lecture, 4 hrs. lab/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of the physical therapist assistant program about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KPT 154  
Applied Neurology (2 CR)  
Prerequisites: BIOL 144, BIOL 145, KPT 152, and KPT 160,
Foundations of neuroscience necessary for practice as a rehabilitation professional. Anatomy and function of the nervous system. Correlation of clinical problems with pathology of the nervous system. 2 hrs. lecture/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of the physical therapist assistant program about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KPT 155
Rehabilitation (4 CR)
Prerequisite: KPT 162
Introduction to the philosophy underlying rehabilitation theory and principles of treatment involved in normal and abnormal ambulation and mobility. Application of external supports and assistive devices, and teaching activities of daily living with attention to description, demonstration and practice. Field trips are required. 3 hrs. lecture, 2 hrs. lab/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of the physical therapist assistant program about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KPT 158
Therapeutic Exercise (4 CR)
Prerequisite: KPT 162
Introduction to the theory and principles of application of therapeutic exercise, including patient instruction, manual techniques and equipment commonly used by the physical therapist assistant. Field trips to learn various specialized techniques. 2 hrs. lecture, 4 hrs. lab/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of the physical therapist assistant program about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KPT 159
Orthopedic Pathology (2 CR)
Prerequisites: BIOL 144, BIOL 145, KPT 152 and KPT 160
Orthopedic pathologies commonly seen in physical therapy practice, diagnosis, signs and symptoms, physiological factors and treatment. 2 hrs. lecture/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of the physical therapist assistant program about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KPT 160
Medical Diseases (2 CR)
Prerequisites: BIOL 122, BIOL 140, AAC 130 and KPT 151 and formal acceptance into the program
Medical diseases commonly seen in physical therapy practice; diagnosis, signs and symptoms, physiologic factors and treatment. 2 hrs. lecture/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of the physical therapist assistant program about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KPT 161
Physical Therapy Fundamentals II (4 CR)
Prerequisites: BIOL 144, BIOL 145, KPT 152, and KPT 160
Introduction to the theory and practical application of electrotherapy, patient documentation, patient care skills, and selected modalities, including indications and contraindications for use. 2.5 hrs. lecture, 3 hrs. lab/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley
coordinator of the physical therapist assistant program about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

**KPT 162**

**Clinical Experience I (2 CR)**  
*Prerequisites: KPT 153, KPT 154, KPT 159, KPT 161, and KPT 102 Completion of pre-clinical examination with a score of 80 percent or better. Demonstrated competency in pre-clinical checkouts.*  
Supervised clinical experience in the practical application of techniques and procedures covered in all previous physical therapist assistant courses. Assisting physical therapists and physical therapist assistants in treatment of patients in a variety of clinical settings. 5 hrs. clinical/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of the physical therapist assistant program about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

**KPT 164**  
**Pediatrics and Gerontology (2 CR)**  
*Prerequisite: KPT 162*  
Specialized information related to the treatment of pediatric and older adult populations. 2 hrs. lecture/ wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of the physical therapist assistant program about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

**KPT 170**  
**Clinical Experience II (2 CR)**  
*Prerequisites: KPT 162 with a minimum grade of "C". Concurrent enrollment in KPT 155, KPT 158, KPT 164 and KPT 171*  
Supervised clinical experience in the practical application of techniques and procedures covered in all previous KPT courses. Assisting physical therapists and physical therapist assistants in the treatment of patients in a variety of clinical settings. 5 hrs. clinical/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of the physical therapist assistant program about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

**KPT 171**  
**Clinical Seminar (2 CR)**  
*Prerequisites: KPT 162*  
This course contains current professional and patient patient-care issues regarding the practice of physical therapy, such as ethics, departmental organization, reimbursement, safety and research. 2 hrs. lecture/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of the physical therapist assistant program about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

**KPT 172**  
**Clinical Experience III (12 CR)**  
*Prerequisites: Completion of all other required courses in the KPT program*  
Practical application of principles learned in prior coursework. Experience rotation internships in selected hospitals and other clinical sites throughout the United States under the guidance of a physical therapist. 40 hrs. field studies/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of the physical therapist assistant program about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.
KPT 173
Special Topics (2 CR)
Prerequisite: Completion of all previous semesters of physical therapy and biology coursework with a minimum grade of "C"
This course presents specialized topics in physical therapy and the administration of health care. 1 hr. lecture/wk.

Physics (PHYS)

PHYS 130
General Physics I (5 CR)
Prerequisite: MATH 171 or assessment scores
In this introductory course for pre-professional and general education, students will learn the fundamentals of selected areas of classical physics. Using the tools of algebra and trigonometry, the course develops the topics of mechanics, heat and thermodynamics, and concludes with waves. The two-semester PHYS 130/131 sequence is designed to meet the requirements of area pre-professional programs. This is a transfer course that meets the college's requirements for associate's degree programs and also meets transfer requirements of area colleges and universities. The course includes an integrated laboratory component the completion of which is a necessary part of the total instructional package. 4 hrs. lecture, 3 hrs. lab/wk.

PHYS 131
General Physics II (5 CR)
Prerequisite: PHYS 130
In this introductory course for pre-professional and general education, students will learn the fundamentals of selected areas of classical physics. Using the tools of algebra and trigonometry, the course develops the topics of electricity and magnetism, light and optics and some elements of modern physics, such as relativity and quantum physics. The two-semester PHYS 130/131 sequence is designed to meet the requirements of area pre-professional programs. This is a transfer course that meets the college's requirements for associate's degree programs and also meets transfer requirements of area colleges and universities. The course includes an integrated laboratory component the completion of which is a necessary part of the total instructional package. 4 hrs. lecture, 3 hrs. lab/wk.

PHYS 133
Applied Physics (5 CR)
Prerequisite: MATH 133 or higher
This is a one-semester, comprehensive physics course intended for students enrolled in the biotechnology certificate program or an associate of applied science degree program. The course will cover all areas of applied physics, including mechanics, heat, thermodynamics, waves, electricity, magnetism, light, optics and some elements of modern physics. Emphasis will be placed on concepts and applications to real-life problems. This course includes an integrated laboratory component the completion of which is a necessary part of the total instructional package. 4 hrs. lecture, 3 hrs. lab/wk.

PHYS 191
Math & Physics for Games I (4 CR)
Prerequisite: MATH 171 or MATH 173 with grade of "C" or higher or appropriate score on math assessment test and CS 200
This introductory course focuses on the mathematics and physics concepts
needed to program a variety of video game scenarios. Students will learn to use vectors and matrix transformations to model the motion of physical objects in two and three dimensions. Students will also learn various computer programming methods in order to model these mathematical and physical concepts. 3 hrs. lecture and 2 hrs. lab/wk.

PHYS 220
Engineering Physics I (5 CR)
Prerequisite or corequisite: MATH 242
This is an introduction to physics for engineering and science students. Included will be mathematical approaches to the study of mechanics, wave motion and thermodynamics. 4 hrs. lecture, 3 hrs. lab/wk.

PHYS 221
Engineering Physics II (5 CR)
Prerequisites: PHYS 220 and MATH 242
This is an introduction to physics for engineering and science students. Included are mathematical approaches to the study of electricity, magnetism, sound, optics and modern physics. 4 hrs. lecture, 3 hrs. lab/wk.

Political Science (POLS)

POLS 122
Political Science (3 CR)
This course provides students the opportunity to explore the discipline of political science and to discover how political scientists study politics in the contemporary world. 3 hrs. lecture/wk. and online

POLS 124
American National Government (3 CR)
This course examines the components of the public policy-making process. Topics of study include American political culture, constitutional principles, intergovernmental relations, public opinion, political parties, interest groups, media, the influence of the constant campaign of candidate-centered politics, budget construction, bureaucracy, and decision-making institutions. 3 hrs./wk. and online. This course may be offered as a Learning Communities (LCOM) section, see current credit schedule for LCOM details.

POLS 126
State and Local Government (3 CR)
This course examines the executive, legislative, judicial and service functions of state and local government in the United States in general and in Kansas in particular. The course includes guest lectures by elected officials, government personnel and community activists. 3 hrs./wk. This course is typically offered only once each academic year.

POLS 132
Introduction to Comparative Government (3 CR)
This course compares the different political structures of many of the world's most important countries, including economic development, patterns of government and administration, party structures and policy formation. 3 hrs. wk. This course is
typically offered only once each academic year.

**POLS 135**  
**International Relations** *(3 CR)*  
This course analyzes the conflict and cooperation among nation-states. Students will study contemporary problems and how they relate to power, war, terrorism, diplomacy, international organizations and the future of the nation-state system. 3 hrs./wk. and online

**POLS 200**  
**Model United Nations** *(3 CR)*  
This course is designed for students who are interested in learning and understanding international organizations and participating in competitive intercollegiate Model United Nations. This course orients students with the history, structure and function of the United Nations and those facets of an assigned country. This orientation will assist students in their preparation for the Model United Nations (MUN) conference during the spring semester. 3 hrs lecture/wk.

**POLS 245**  
**Introduction to Public Administration** *(3 CR)*  
This course provides students the opportunity to explore public administration and public policy including institutional arrangements for the provision of public services and the study of those arrangements. 3 hrs. lecture/wk.

**POLS 270**  
**Political Science Internship** *(3 CR)*  
*Prerequisite and/or corequisite: By permission of the political science internship coordinator, completion of 6 credit hours in political science courses at JCCC or another college within the last two years, earning a minimum of a 3.0 on a 4.0 scale in those political science courses, and a written recommendation from your political science classroom instructor*

Students augment their academic course work with an internship in an appropriate setting under instructional supervision. Internship projects are cooperative efforts between appropriate supervisors in state, local or national government settings or not-for-profit organizations and college staff and students. Internships give students the opportunity to participate in the real-world application of their academic studies. In addition, this synthesis of classroom study with practical experience provides students with skills and insights useful in selecting a career or avocation in community service. The student spends the equivalent of 10 hours per week performing internship duties over the course of the semester or a total of 150 hours.

**Power Plant Technology (PPT)**

**PPT 130**  
**Basic Hydraulics, Mechanics and Pneumatics** *(3 CR)*  
This introductory course is designed to give a general overview of hydraulic, mechanic and pneumatic principles. Upon successful completion of this course, the student will be able to describe the concepts involved in industrial maintenance of hydraulic, mechanical and pneumatic equipment and identify the major components and their functions. Topics will include hydraulics, pneumatics, rigging, ladders, scaffolds, lubrication, drive belts, vibrations, mechanical drives, alignments, bearings and electricity. This course is appropriate for power plant technology majors or other interested students. 3 hrs. lecture/wk.
PPT 140
Generating Plant Fundamentals (3 CR)
This is an introductory course designed to give a general overview of power plant operations and functions. Upon successful completion of this course, the student will be able to describe the concepts involved in converting energy to electricity through a steam generation power plant and identify the major components and their functions. Topics will include fossil fuels, boilers, turbines, feedwater heaters, ash removal, condensate, power plant controls, and temperature and pressure relationships. This course is appropriate for power plant technology majors or other interested students. 3 hrs. lecture/wk.

PPT 150
Station Power Fundamentals (3 CR)
This course will give students the ability to describe the concepts involved in providing electricity to a power plant. Topics will include electrical concepts, the power grid, switchyards, transformers, critical services, essential services and black-out conditions. This course is appropriate for power plant technology majors or other interested students. 3 hrs. lecture/wk.

PPT 210
Reading Piping & Instrument Diagrams (3 CR)
This course will enable the student to be able to read a set of piping and instrument diagrams (P&IDs) and trace the flow paths of the major systems in a power plant. Topics will include symbols and terminology, the condensate system, the feedwater system, high pressure steam, extraction steam, fuel flow, auxiliary cooling, and lubrication systems. This course is appropriate for power plant technology (PPT) majors or other interested students. 3 hrs. lecture/wk.

PPT 230
Introduction to Water Chemistry & Water Treatment (3 CR)
Prerequisite or corequisite: MATH 171
This introductory course is designed to give a general overview of water chemistry and water treatment in power plants. Upon successful completion of this course, the student should be able to describe the concepts and solve the problems associated with water treatment in boiler operations. Topics will include hydrology, specific gravity of liquids, acids, bases, measurements, cooling towers, clarification, ion exchange and filtration. This course is appropriate for power plant technology majors and other interested students. 3 hrs. lecture/wk.

PPT 250
Intro to Power Plant Combustion and Exhaust (3 CR)
Prerequisite: PPT 140
Upon successful completion of this course, the student should be able to describe the concepts involved in the combustion of fuel for energy generation. Topics will include fuel handling, combustion requirements, combustion control and by-products of combustion. This course is appropriate for power plant technology majors and other interested students, with the permission of the instructor. 3 hrs. lecture/wk.

PPT 251
Introduction to Power Plant Steam and Water Cycle (3 CR)
Prerequisite: PPT 140
Upon successful completion of this course, the student will be able to describe the steam water cycle in a steam generation plant. Topics will include boilers,
turbines, feedwater heaters, condensers, cooling towers and auxiliary equipment. Enrollment in the course is limited to power plant technology majors or by permission of the instructor. 3 hrs. lecture/wk.

PPT 271
Power Plant Technology Internship (3 CR)
Prerequisite: Career program facilitator approval required
The internship will provide advanced students with on-the-job experience under the supervision of professionals in the industry. The work will be developed cooperatively with area employees, college staff and each student to provide a variety of actual job experience directly related to the student's career goals. This course is only available to students who have declared a power plant technology major. 20 hrs. on-the-job training/wk., or a minimum of 40 hrs./wk. on the job for summer semester.

PPT 280
Power Plant Operations and Process Controls (3 CR)
Prerequisites or corequisites: PPT 250 and PPT 251
Upon successful completion of this course, the student should be able to describe the concepts involved in operating a steam generation power plant and identify the major components and their functions. Topics will include cold start-up, warm start-up, shutdown, normal operations, load changes, safety checks, and power plant controls. This course is designed to integrate and build on previous power plant technology course work. This course is appropriate for power plant technology majors and other interested students with the permission of the instructor. 3 hrs. lecture/wk.

Practical Nursing (AVPN)

AVPN 115
Nursing I
Prerequisites: CNA certification and BIOL 144 and PSYC 130 and MATH 111 and selective admission approval required
Using the nursing process, the student will promote adaptive responses in the client during health and illness. The student will develop a basic understanding of the role of the practical nurse in the health care system and demonstrate the fundamental skills essential to the nursing care of the client. The nursing process will be applied to the care of clients in long-term care, the medical office and the acute-care settings. Basic concepts of gerontology, professional vocational relationships, pharmacology, medical terminology and nutrition will be used in the care of the clients. In-state tuition and fees $1,040 total. Out-of-state tuition and fees $4,450 total. 550 contact hrs. The credit reflected in this course is for transcript reporting, recording and transfer only.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $250 to 550.

AVPN 117
Nursing II
Prerequisite: AVPN 115
In Nursing II, the student will continue to explore the practical nurse's role in assisting clients to meet basic and more complex physiological needs using the nursing process in a variety of health care settings, including acute care, long-term care and mental health facilities. The student will apply concepts of leadership and change and demonstrate the roles of charge nurse, medication nurse, treatment nurse and patient-care nurse in long-term care. The student will promote adaptive responses in the child and family during the child's illness,
pregnancy, labor and delivery, and postpartum and neonatal phases of reproductive processes. The student will explore the adaptive capacity of individuals with emotional stresses and diagnosed mental disorders across the life span. Basic concepts of gerontology, professional vocational relationships, pharmacology, medical terminology and nutrition will be applied in the care delivered. In-state tuition and fees $1075 total. Out-of-state tuition and fees $4,485 total. 550 contact hrs. The credit reflected in this course is for transcript reporting, recording and transfer only.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $250 to 900.

Psychology (PSYC)

**PSYC 121**
**Applied Psychology (3 CR)**
The course will focus on learning how to apply psychological principles in order to better understand one’s own experience (cognitive, behavioral and emotional) and that of other people. This course is not a substitute for Introduction to Psychology and will not meet the prerequisite requirement for advanced psychology courses. 3 hrs./wk.

**PSYC 130**
**Introduction to Psychology (3 CR)**
This basic introduction to psychology includes the study of biological aspects of behavior, the brain, consciousness, sensation and perception, motivation and emotion, stress, maturation and development, learning and memory, normal and abnormal personality, and social psychology. This course is the prerequisite for all advanced-level psychology courses. PSYC 130 students may enroll in Learning Strategies LS 176, PSYC sections as an optional course. 3 hrs./wk. This course may be offered as a Learning Communities (LCOM) section, see current credit schedule for LCOM details.

**PSYC 200**
**Industrial and Organizational Psychology (3 CR)**
*Prerequisite: PSYC 130*
The course will examine human behavior and psychological principles in an industrial/personnel context. It will also focus on how organizational factors contribute to individual behavior and how individuals affect groups and organizational functioning. Topics include recruiting, selecting and training personnel, evaluating job performance, work motivation, job satisfaction and other attitudes; leadership; and organization and job design. This course may not be offered every semester. 3 hrs./wk.

**PSYC 205**
**Human Sexuality (3 CR)**
*Prerequisite: PSYC 130*
PSYC 205, Human Sexuality, is a balanced and thoughtful account of what is known about sexuality from various perspectives. A broad and representative survey of research is presented in a number of topical areas. Psychobiology, sexual development during childhood and adolescence, sexual interactions, love relationships and behavior, gender issues, sexual orientation, health issues and diseases, and sexual problems and solutions will be studied. Primary emphasis will be placed on the individual and the couple as a unit of analysis. Class discussions of issues relating to human sexuality will be encouraged. 3 hrs. lecture/wk.
PSYC 210  
Methodology in Social Sciences (3 CR)  
Prerequisite: PSYC 130 or SOC 122 or ECON 230  
This course deals with scientific research methods utilized in the social sciences, especially psychology, sociology, political science and anthropology. The course examines a wide range of data collection methodologies including observation, questionnaire construction, and controlled experimentation. The course will be beneficial for analyzing and evaluating the quality of research findings reported in both the popular and academic press. It will also be useful to those who plan to engage in occupations requiring the use of research methodology. This course may not be offered every semester. PSYC 210 and SOC 210 are the same course. Do not enroll in both. 3 hrs./wk.

PSYC 215  
Child Development (3 CR)  
Prerequisite: PSYC 130  
This course is a comprehensive account of human development from conception through adolescence. The course integrates genetic, biological, physical and anthropological influences with psychological processes and explores determinants of behavior from a genetic and environmental perspective. 3 hrs./wk.

PSYC 218  
Human Development (3 CR)  
Prerequisite: PSYC 130  
This course is a comprehensive account of human psychological and physical development from conception through infancy, childhood, adolescence, adulthood and death. The course integrates genetic, biological, physiological and anthropological influences with the psychological process and explores determinants of development from both hereditary and environmental perspectives. 3 hrs./wk.

PSYC 220  
Social Psychology (3 CR)  
Prerequisite: PSYC 130  
This course is designed to be an undergraduate-level introduction to the psychology of social behavior. It will provide a systematic attempt to understand how the "thought, feeling and behavior of individuals are influenced by the actual, imagined or implied presence of others." Consideration will be given to such concepts as methodology, attitude and attitude change, aggression, leadership, affiliation and obedience and will introduce conformity. The course is intended to introduce students to critical analysis, application and the mechanical and intellectual challenges of college work. 3 hrs./wk.

PSYC 225  
Educational Psychology (3 CR)  
Prerequisite: PSYC 130  
This course addresses various issues that apply theories of psychology to the educational environment. Topics included in the study of educational psychology include research methodology, theories of human development, principles of learning, the psychology of motivation, theories of intelligence, testing and assessment techniques, and career development. A 20-hour observation in an educational setting is required. This course may not be offered every semester. 3 hrs./wk.
PSYC 230
Personality Theory (3 CR)
Prerequisite: PSYC 130
The general viewpoints of paradigms in psychology will be studied, with emphasis on each system's contribution to understanding human personality. The assumptions of each system will be critically analyzed using evidence from research and criticisms from philosophy. Usefulness of theories will be presented, and the systems will be compared and contrasted. General theories covered will include psychoanalysis, trait, biological, humanistic, behavioral/social and cognitive. This course is typically offered in the spring semester. 3 hrs./wk.

PSYC 250
Health Psychology (3 CR)
Prerequisite: PSYC 130
This course covers content, methods and theory regarding the interplay between psychological and biological determinants of health and illness and examines how these factors relate to health status. The course focus is on the application of psychological methods, principles of maintenance of health, prevention of disease, treatment of illness, and rehabilitation and recovery from impaired health. It follows an interdisciplinary approach to content and instruction. 3 hrs. lecture/wk.

Radiologic Technology (KRAD)
KRAD 150
Introduction to Radiologic Technology (2 CR)
Introduction to the profession of radiologic technology, including the duties of the radiologic technologist in the health care environment. 1 hr. lecture/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of radiologic technology about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KRAD 160
Survey of Radiologic Technology (6 CR)
Prerequisite: Admission to the radiologic technology program
Orientation to the program and clinical responsibilities. Topics related to basic patient interactions, body mechanics, patient transportation, radiographic terminology, radiographic examinations of the chest and abdomen, methods of radiation protection and types of radiographic equipment will be explored. 4.2 hrs. lecture, 6 hrs. clinical/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of radiologic technology about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KRAD 162
Image Processing (2 CR)
Prerequisite: KRAD 160, KRAD 172 and KRAD 173
Materials and factors relating to acquisition, processing, viewing, and storage of radiographs. 1.5 hrs. lecture, 1 hr. lab/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of radiologic technology about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KRAD 165
Patient Care (2 CR)
Prerequisite: KRAD 160
This course will explore patient-health professional interactions, basic patient care and management, medico-legal issues, and medical ethics. 2 hrs. lecture/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of radiologic technology about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KRAD 170
Radiation Biology and Protection (3 CR)
Prerequisite: KRAD 160 with concurrent enrollment in corresponding semester of clinical training
The principles of radiation biology and techniques used to protect the patient and personnel from the effects of exposure to ionizing radiation. 3 hrs. lecture/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of radiologic technology about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KRAD 171
Radiographic Exposures I (3 CR)
Prerequisite: Admission to the program
Factors that affect radiographic image formation and determine image quality. 2.5 hrs. lecture, 1 hr. lab/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of radiologic technology about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KRAD 172
Radiographic Positioning I (3 CR)
Prerequisite: KRAD 160 and concurrent enrollment in KRAD 165 and KRAD 173
Anatomy and positioning of the alimentary canal, urinary system, and upper and lower extremities. 2.5 hrs. lecture, 1 hr. lab/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of radiologic technology about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KRAD 173
Clinical Practice I (3 CR)
Prerequisite: KRAD 160 and concurrent enrollment in KRAD 165 and KRAD 172
Performance of patient examination in a clinical setting under the supervision of a radiologic technologist. 16 hrs. clinical/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of radiologic technology about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KRAD 174
Radiographic Exposures II (3 CR)
Prerequisites: KRAD 160, KRAD 171, KRAD 172 and KRAD 173
Quality control of radiographic images. Technic charts, calibration of equipment, standard exposure systems, and factors used for conversion of technics for variables in the exposure system. Special techniques used in producing radiographic images. 2.5 hrs. lecture, 1 hr. lab/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of radiologic technology about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KRAD 175
Clinical Practice II (4 CR)
Prerequisites: KRAD 165, KRAD 172 and KRAD 173 and concurrent enrollment in
KRAD 176
Performance of patient examinations in a clinical setting under the supervision of
a radiologic technologist. 24 hrs. field study/wk. Course taught at MCC-Penn
Valley Community College. Students should contact the Penn Valley coordinator
of radiologic technology about the class meeting times and beginning and ending
dates of classes. Call 816-759-4000.

KRAD 176
Radiographic Positioning II (3 CR)
Prerequisite: BIOL 140 and KRAD 165, KRAD 172 and KRAD 173 and concurrent
enrollment in KRAD 162 and KRAD 175
Anatomy, radiographic positioning, and film critique of pelvis, bony thorax,
vertebral column, cranium, and facial bones. 2.5 hrs. lecture, 1 hr. lab/wk. Course
taught at MCC-Penn Valley Community College. Students should contact the
Penn Valley coordinator of radiologic technology about the class meeting times
and beginning and ending dates of classes. Call 816-759-4000.

KRAD 178
Clinical Practice III (4 CR)
Prerequisites: KRAD 175 and KRAD 176
Performance of patient examinations in a clinical setting under the supervision of
a radiologic technologist. 20 hrs. clinical/wk. Course taught at MCC-Penn Valley
Community College. Students should contact the Penn Valley coordinator of
radiologic technology about the class meeting times and beginning and ending
dates of classes. Call 816-759-4000.

KRAD 278
Imaging Modalities and Pathology (3 CR)
Prerequisites: KRAD 279, KRAD 280, KRAD 281 and KRAD 285, and concurrent
enrollment in KRAD 282
Human disease processes and their relationship to patient examination in the
radiology department. Radiographic pathology and imaging modalities. 3 hrs.
lecture/wk. Course taught at MCC-Penn Valley Community College. Students
should contact the Penn Valley coordinator of radiologic technology about the
class meeting times and beginning and ending dates of classes. Call
816-759-4000.

KRAD 279
Radiographic Positioning III (2 CR)
Prerequisites: KRAD 176 and KRAD 178 and concurrent enrollment in KRAD 280,
KRAD 281 and KRAD 285
Anatomy and positioning of the biliary system, mammary glands and temporal
bone. Advanced film critique of radiographs of all routine radiographic
examinations. 2 hrs. lecture. Course taught at MCC-Penn Valley Community
College. Students should contact the Penn Valley coordinator of radiologic
technology about the class meeting times and beginning and ending dates of
classes. Call 816-759-4000.

KRAD 280
Clinical Practice IV (4 CR)
Prerequisite: KRAD 162, KRAD 176 and KRAD 178, and concurrent enrollment in
KRAD 279, KRAD 281 and KRAD 285
Performance of patient examinations in a clinical setting under the supervision of
a radiological technologist. 24 hrs. clinical/wk. Course taught at MCC-Penn Valley
Community College. Students should contact the Penn Valley coordinator of
radiologic technology about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KRAD 281
Radiation Physics (3 CR)
Prerequisite: PHYS 162 and KRAD 171 each with a minimum grade of "C"
Application of fundamental physics principles relating to energy, electricity, and magnetism and their relevance to the study of x-rays and x-ray equipment. 2.5 hrs. lecture, 1 hr. lab/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of radiologic technology about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KRAD 282
Clinical Practice V (4 CR)
Prerequisites: KRAD 279, KRAD 280, KRAD 281 and KRAD 285, each with a minimum grade of "C", and concurrent enrollment in KRAD 278
Performance of patient examinations in a clinical setting under the supervision of a radiologic technologist. 24 hrs. clinical/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of radiologic technology about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KRAD 283
Final Seminar (2 CR)
Prerequisites: KRAD 174 and KRAD 278 and KRAD 280
Preparation for the National Registry examination. Simulation of American Registry of Radiologic Technologists examination. 2 hrs. lecture/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of radiologic technology about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KRAD 285
Special Procedures (2 CR)
Prerequisites: KRAD 170 and KRAD 171 and KRAD 178, and concurrent enrollment in KRAD 279 and KRAD 280 and KRAD 281
Anatomy, positioning, equipment and special tasks related to performance of special contrast media studies. Vascular, neurological, lymphatic, skeletal, and pulmonary systems. 2 hrs. lecture/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of radiologic technology about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

Railroad Conductor (RRTC)

RRTC 123
Introduction to Conductor Service (4 CR)
Prerequisite: Admission to the JCCC railroad operations program, conductor option
This is an introductory course for the conductor service option within the railroad operations program. Upon successful completion of this course, the student should be able to describe railroad organization and general operations, policies and practices to ensure railroad safety, and the basic responsibilities of conductors. 5 hrs. lecture, demonstration/wk. Selective admission program - see a counselor about special requirements.
RRTC 175
Conductor Mechanical Operation (2 CR)
Prerequisite: Admission to the JCCC’s railroad operations program, conductor option, and successful completion of RRTC 123 with a grade of “C” or better
This course covers mechanical operations that relate to conductor service. This is the second course in the conductor option of the railroad operations degree program. Upon successful completion of this course, the student should be able to describe the importance and application of freight care mechanical policies and practices to ensure safe railroad operations. 2.5 hrs. lecture/wk. Selective admission program - see a counselor about special requirements.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $36.

RRTC 261
Conductor Service (2 CR)
Prerequisite: Admission to the JCCC railroad operations program, conductor option, and successful completion of RRTC 175 with a minimum grade of “C”
Upon successful completion of this course, the student should be able to describe and apply railroad organization and general operations, policies and practices to ensure railroad safety and basic responsibilities of conductors. This course includes safety and the general rules with which conductors must comply and teaches the techniques and administrative procedures conductors use on the job to perform safely and effectively. 2.5 hrs. lecture/wk. Selective admission program - see a counselor about special requirements.

RRTC 263
General Code of Operating Rules (4 CR)
Prerequisite: Admission to the JCCC railroad operations program, conductor option, and successful completion of RRTC 261 with a minimum grade of “C”
This is the fourth course in the conductor option for the railroad operations degree program. Conductors must maintain a thorough understanding of the General Code of Operating Rules (GCOR). This course provides an in-depth study of the GCOR. Upon completion of this course, the student should be able to demonstrate abilities to apply the General Code of Operating Rules to safe and efficient train movement and operations. 5 hrs. lecture/wk. Selective admission program - see a counselor about special requirements.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $25.

RRTC 267
Conductor Field Application (4 CR)
Prerequisite: Admission to the JCCC railroad operations program, conductor option, and successful completion of RRTC 263 with a minimum grade of “C”
Upon successful completion of this course, the student will have observed actual operations and be able to apply skills learned in classroom-based instruction to those operations. The student will observe and perform operations under the supervision of experienced conductor mentors in an actual field location. The student prepares a daily reflective journal of the hands-on (OJT) railyard experience. 1 hr. lecture, 8 hrs on-the-job training/day for 7 days.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $100.

Railroad Dispatcher (RRTD)

RRTD 122
Introduction to Railroad Dispatching (2 CR)
Prerequisite: Admission to the JCCC railroad operations program, dispatcher option
Upon successful completion of this course, the student should be able to describe railroad organization and general operations, policies and practices to ensure railroad safety and basic dispatching functions. 2.5 hrs. lecture/wk. Class currently held at Tarrant County Junior College, Ft. Worth, Texas.

RRTD 271
Apprentice Railroad Dispatching Training I (6 CR)

Prerequisite: Admission to the JCCC's railroad operations program, dispatcher option, and successful completion of RRTD 275 with a minimum grade of “C”

Upon successful completion of this course, the student should demonstrate abilities to apply the General Code of Operating Rules, maintenance of way operating rules and the train dispatcher’s manual of policies and practices to safe and effective train movement and maintenance operations. This is an intensive course that prepares students to observe actual dispatching operations. 7.5 hrs. lecture/wk. Class currently held at Tarrant County Junior College, Ft. Worth, Texas.

RRTD 272
Apprentice Railroad Dispatching Training II (6 CR)

Prerequisite: Admission to the JCCC railroad operations program, dispatcher option, and successful completion of RRTD 271 with a minimum grade of “C”

Upon successful completion of this course, students should demonstrate their ability to use centralized traffic control equipment, computerized track warrant control equipment, and management information systems that record and report train movements. Students will also identify and resolve traffic conflicts safely and effectively. This is an intensive course in which students observe, practice and demonstrate rail traffic dispatching functions in a laboratory setting. In addition, the student will spend an additional week observing dispatching-related activities in the field in conjunction with this course. 4.5 hrs. lecture, 3 hrs. lab/wk. Class currently held at Tarrant County Junior College, Ft. Worth, Texas.

RRTD 275
Railroad Dispatching Field Observation (3 CR)

Prerequisite: Admission to the JCCC railroad operations program, dispatcher option, and RRTD 122 with a minimum grade of “C”

Upon successful completion of this course, the student will have observed actual dispatching operations and should be able to identify major responsibilities. Students will observe operations under the supervision of experienced dispatcher mentors in actual dispatching offices. 1 hr. lecture, minimum 15 hrs. on-the-job training/wk. Class currently held at Tarrant County Junior College, Ft. Worth, Texas.

RRTD 276
Railroad Dispatching Field Applications (5 CR)

Prerequisite: Admission to the JCCC's railroad operations program, dispatcher option, and RRTD 272 with a minimum grade of “C”

Railroad Dispatching Field Applications is a 10-week period in which students will observe and practice operations under the supervision of experienced dispatcher mentors in actual dispatching offices. Upon successful completion of this course, students will be able to apply skills learned in classroom-based dispatching instruction to those operations. Minimum 15 hrs. on-the-job training/wk. Class currently held at Tarrant County Junior College, Ft. Worth, Texas.

Railroad Electronics (RREL)
RREL 144
Introduction to Programmable Logic Controllers (2 CR)
Prerequisite: Approval of the railroad training director and the JCCC program assistant dean
This course is an introduction to programmable logic controllers using Allen Bradley PLC-5 processors and is designed for electricians and maintenance personnel. Upon successful completion of this course, the student should be able to identify the components of programmable controllers, configure and set up the controllers for specific operations, write and test basic programs, and apply troubleshooting procedures to locate problems. 1 hr. lecture, 1.5 hrs. lab/wk.

RREL 172
Programmable Logic Controllers Applications (2 CR)
Prerequisite: Approval of the railroad training director and the JCCC program assistant dean
This course is designed for electricians and maintenance personnel. It is intended as an advanced course for people with basic knowledge in programmable logic controllers operation. Allen Bradley PLC-5 family of processors is used for hands-on-training. Upon successful completion of this course, the student should be able to use advanced PLC instructions such as file, block transfer, stack concepts/operations and sequences, and configure and operate a network of processors. 1 hr. lecture, 1.5 hrs. lab/wk.

RREL 180
Introduction to Railroad Electronics (1 CR)
Prerequisite: Approval of the railroad training administrator and the JCCC program assistant dean
This course is designed to meet the needs of railroad electronic maintainers. Upon successful completion of this course, the student should be able to state basic safety procedures in electronics, explain basic principles of electronics, perform basic electronic calculations and use basic electronic tools. 2.5 hrs. lecture, 2.5 hrs. lab/wk.

RREL 181
Circuit Analysis DC/AC (6 CR)
Prerequisite: RREL 180 and the approval of the railroad training administrator and the JCCC program assistant dean
This course is designed to meet the needs of the railroad electronic maintainers. Upon successful completion of this course, the student should be able to identify and use fundamental DC circuit concepts such as Kirchhoff’s laws, power and energy formulas, Ohm’s Law, Thevenin’s Theorem and Norton’s Theorem as they apply to resistive circuits. Also upon successful completion of this course, the student should be able to analyze circuits involving resistors, capacitors and inductors driven by time-variant sources. This analysis will involve both time and frequency responses. 3 hrs. lecture, 2 hrs. lab, 3 hrs. alternate deliver/wk.

RREL 182
Semiconductor Devices and Circuits (6 CR)
Prerequisites: RREL 181 and the approval of the railroad training administrator and the JCCC program assistant dean
This course is designed to meet the needs of railroad electronic maintainers. Upon successful completion of this course, the student should be able to describe the characteristics of basic semiconductor devices, explain practical circuits using semiconductor devices and analyze these circuits for DC and AC quantities. 3 hrs. lecture, 2 hrs. lab., 3 hrs. alternate delivery/wk.
RREL 183
Digital Techniques (6 CR)
Prerequisites: RREL 182 and approval of the railroad training administrator and the JCCC program assistant dean
This course is designed to meet the needs of railroad electronic maintainers. Upon successful completion of this course, the student should be able to analyze basic digital circuitry consisting of arrangements of gates and flip-flops using TTL and CMOS integrated circuits, as well as relay logic. This analysis will include the application of elementary Boolean algebra, truth tables and timing diagrams. 3 hrs. lecture, 2 hrs. lab., 3 hrs. alternate delivery/wk.

RREL 284
Electronic Communications (6 CR)
Prerequisites: RREL 183 and approval of the railroad training director and the JCCC program assistant dean
This course is designed to meet the needs of railroad electronic maintainers. Upon successful completion of this course, the student should be able to state the principles of amplitude, frequency, phase and pulse modulation and describe the technologies of transmitters, receivers, antennas, local area networks, wide-area networks and telephone systems. 3 hrs. lecture, 2 hrs. lab, 3 hrs. activity/wk.

RREL 285
Microprocessor Techniques (6 CR)
Prerequisites: RREL 183 and approval of the railroad training director and the JCCC program assistant dean
This course is designed to meet the needs of railroad electronic maintainers. Upon successful completion of this course, the student should be able to analyze and troubleshoot 6800 family microprocessor circuitry as well as microprocessor interface circuitry. 3 hrs. lecture, 2 hrs. lab, 3 hrs. activity/wk.

RREL 286
Applied Microprocessors (2 CR)
Prerequisites: RREL 285 and approval of the railroad training director and the JCCC program assistant dean
This course is designed to provide an introduction to advanced microcomputer concepts and applications. This course is a continuation of topics introduced in the microprocessor course, with specific applications in general-purpose microcomputers (PCs) and dedicated microprocessor-based control systems. Included are hardware and software training in operating systems, peripherals, monitors, processors, storage media, maintenance, diagnostics and troubleshooting. Analog and digital data acquisition and processing, as well as voice digitization and playback, will be demonstrated. Presentations and labs will include incorporation of these functions into a PC, Harmon HLC and the Servo 9000 hot box detector. 1 hr. lecture, 2 hrs. lab/wk.

Railroad Industrial Technology (RRIT)

RRIT 122
Elements of Welding (3 CR)
Prerequisites: Approval of the BNSF manager of engineering and maintenance training and the JCCC program assistant dean
Upon successful completion of this course, the student should be able to cut and weld using oxyacetylene welding (OAW) and oxyfuel (OFC) and shielded metal arc welding (SMAW). The OAW portion will cover puddling with and without filler metal; OFC will cover straight-line cutting, beveling, piercing and gouging. The
SMAW portion will cover flat position and will be limited to fillet welds. The student should be able to discuss electrical safety in shielded metal arc welding (SMAW), handle welding cables properly, understand eye hazards, list safe clothing requirements and discuss environmental safety. This knowledge will be evidenced by achieving the specified score on the unit test. 2 hrs. lecture, 3 hrs. lab/wk.

RRIT 123
Basic Welding (3 CR)
Prerequisites: RRIT 122 or approval of the BNSF manager of engineering and maintenance training and the JCCC program assistant dean

Upon successful completion of this course, the student should be able to properly use oxy-fuel cutting (OFC), shielded metal arc welding (SMAW) and air carbon arc cutting (CAC-A) equipment. The SMAW portion of the course will concentrate on 1G and 2F welds with bend tests being performed on selected weldments. 1 hr. lecture, 4 hrs. lab/wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $180 to 400.

RRIT 127
Welding Processes (2 CR)
Prerequisites: Approval of the BNSF training director and the JCCC program assistant dean

Upon successful completion of this course, the student should be able to identify various welding processes used by the railroad and other industries. Standard shop and maintenance welding processes will be taught and demonstrated. Welds will be tested and inspected according to industry standards. 1 hr. lecture, 1.5 hrs. lab/wk.

RRIT 132
Thermite Welding (3 CR)
Prerequisites: Approval of the BNSF manager of engineering and maintenance training and the JCCC program assistant dean

Upon successful completion of this course, the student should be able to produce in a safe manner high-quality, sound Thermite welds on standard rail and mismatched rail. This course is intended for people who are employed in the railroad industry. This will be specific, in-depth, industrial training. Students will be required to make various rail alignments and grind various new and worn rails. The student should also be able to clean a used crucible, assemble a crucible and temper new and used crucibles. 1 hr. lecture, 4 hrs. lab/wk.

RRIT 136
Rail and Switch Point Repair Welding (3 CR)
Prerequisites: RRIT 123 and approval of the BNSF manager of engineering and maintenance training and the JCCC program assistant dean

Upon successful completion of this course, the student should be able to identify and/or produce in a safe manner high-quality welding repairs and correct welding techniques to railroad track components to include maintenance, grinding, welding and repairs of switches, track rail ends, track wheel burns, battered welds, rail transition ramp building methods, Pandrol weld on shoulders, proper placement of work piece connections, and approved switch point welding procedures, as specified by the Burlington Northern Santa Fe Railway. This course will involve the study of different welding processes, welding safety, proper grounding techniques, rail heater and metallurgy. The effects of heat in relationship to specific rail steel components will be discussed. Students will be required to experience all appropriate methods and processes including welding, cutting, grinding, straight edging rail steel and preparing switch points for proper mating surface according to current industry standards. Evaluation will be a classroom and laboratory setting. 1 hr. lecture, 4 hrs. lab/wk.
RRIT 137
Structural Welding SMAW (3 CR)

Prerequisites: RRIT 123 and approval of the BNSF manager of engineering and maintenance training and the JCCC program assistant dean

Upon successful completion of this course, the student should be qualified to weld with SMAW according to AWS D1.1.96 code. All welds will be made in the vertical (3G) and overhead (4G) positions. Passing or failing will be determined by the student's ability to successfully produce welds according to prescribed standards in AWS D1.1.96. 1 hr. lecture, 4 hrs. lab/wk.

RRIT 138
Structural Welding FCAW (3 CR)

Prerequisites: RRIT 137 and approval of the BNSF manager of engineering and maintenance training and the JCCC program assistant dean

Upon successful completion of this course, the student should be qualified to weld with FCAW according to AWS D1.1.96 code. All welding will be made in the vertical (3G and 3F) and overhead (4G and 4F) positions. Passing or failing will be determined by the student's ability to successfully produce welds according to prescribed standards in AWS D1.1.96. 1 hr. lecture, 4 hrs. lab/wk.

RRIT 139
Structural Welding Pipe (3 CR)

Prerequisites: RRIT 137 and approval of the BNSF manager of engineering and maintenance training and the JCCC program assistant dean

Upon successful completion of this course, the student should be qualified to weld on pipe using the SMAW process. All welding will be made in the vertical uphill fixed position (5G). Passing or failing will be determined by the student's ability to successfully produce test welds. 1 hr. lecture, 4 hrs. lab/wk.

RRIT 140
Structural Quality SMAW (3 CR)

Prerequisites: RRIT 127 or approval of the BNSF training director and the JCCC program assistant dean

Upon successful completion of this course, the student should be qualified to weld with shielded metal arc welding (SMAW) according to industrial standards. Test welds will be made in the vertical (3G) and overhead (4G) positions; limited thickness. Passing or failing will be determined by the student's ability to successfully produce welds according to prescribed American Welding Society (AWS) standards. The oxyfuel cutting (OFC) portion will include cutting metal to specific sizes and shapes. 1 hr. lecture, 4 hrs. lab/wk.

RRIT 141
Structural Quality GMAW (3 CR)

Prerequisites: RRIT 127 or approval of the BNSF training director and the JCCC program assistant dean

Upon successful completion of this course, the student should be able explain the theory of gas metal arc (GMAW) and fluxed-cored arc (FCAW) welding, identify materials and use equipment related to the processes. The student will weld on mild steel plate in all positions producing both fillet and groove welds with the GMAW process with a U-bend test being performed in selected positions according to industry standards. The student will also weld in selected positions on mild steel plate with the FCAW process. Selected welding codes and specifications will be used as a reference for this class. The oxy-fuel (OFC) will be used to prepare mild steel for welding. 1 hr. lecture, 4 hrs. lab/wk.
RRIT 142
Structural Pile Welding (3 CR)
Prerequisites: RRIT 137 and RRIT 138 and approval of the BNSF manager of engineering and maintenance training and the JCCC program assistant dean

Upon successful completion of this course, the student should be able to splice pipe and H-beam piling and install cap plate gussets according to Burlington Northern Santa Fe (BNSF) standard blueprints. This course shall make use of oxy-fuel cutting (OFC), grinding, shielded metal arc welding (SMAW), and flux cored arc welding (FCAW) to prepare, fit and weld piling. Selected welds will have test strips bent to check for soundness of welds. These strips should meet basic American Welding Society (AWS) test standards. Basic metallurgy will be discussed as it applies to the need for preheat and post heat in the building of railroad bridges. 1 hr. lecture, 4 hrs. lab/wk.

RRIT 143
Thermite Welding for Supervisors (2 CR)
Prerequisites: Approval of the BNSF manager of engineering and maintenance training and the JCCC program assistant dean

Upon successful completion of this course, the student should be able to produce in a safe manner high-quality, sound thermite welds on standard rail and mismatched rail. This course is intended for people who are employed in the railroad industry. This will be specific, in-depth, industrial training. Students will be required to make various rail alignments and grind various new and worn rails. The students should also be able to clean a used crucible, assemble a crucible and temper new and used crucibles. 1.5 hrs. lecture, 1 hr. lab/wk.

RRIT 145
Frog Welding (3 CR)
Prerequisite: RRIT 123 and approval of the BNSF manager of engineering and maintenance training and the JCCC program assistant dean

Upon successful completion of this course, the student should be able to repair by welding a manganese frog casting according to Burlington Northern Santa Fe Railway standards. This course will involve the study of different welding and cutting processes, with emphasis on the FCAW process. Metallurgy and the effects of heat in relationship to austenitic manganese steel will be discussed. Students will be required to cut, grind, straight edge, dye penetrant test, weld and monitor heat input during the repair process on austenitic steel frog casting for evaluation in an actual laboratory setting. 1 hr. lecture, 4 hrs. lab/wk.

RRIT 147
Component Welding for Supervisors (2 CR)
Prerequisites: Approval of the BNSF manager of engineering and maintenance training and the JCCC program assistant dean

Upon successful completion of this course, the student should be able to describe methods and processes used to weld railroad track components. This course will introduce the student to various types of welding and cutting processes. Metallurgy and the effects of heat on rail steel and manganese frog castings will be discussed. Instructor demonstration and student hands-on experience will be provided regarding welding, cutting and grinding on rail steel, frog castings, carbon arc cutting with air (CAC-A), straight edging, temperature monitoring and dye penetrants on both rail steel and frog castings in an actual laboratory setting. 1.5 hrs. lecture, 1 hr. lab/wk.

RRIT 155
Railroad Welding Review (2 CR)
Prerequisites: Approval of the BNSF manager of engineering and maintenance training and the JCCC program assistant dean
Upon successful completion of this course, the student should be able to identify currently used rail, frogs, switch points, crossings, Conley's and insulated joint plugs. The student should be able to locate operating procedures in an approved manual and apply them to the appropriate component. In addition, the student should be able to describe the proper application of OFC, OFW, heating, SMAW, FCAW, CAC-A and thermite welding procedures. 1.5 hrs. lecture, 1 hr. lab/wk.

RRIT 156
Rail and Frog Welding Review (3 CR)
Prerequisite: Approval of BNSF manager of engineering maintenance training and the JCCC program assistant dean
Upon successful completion of this course, the student should be able to identify currently used types and sizes of rail, frogs, switch points and insulated joints. The student should be able to locate operation procedures in an approved manual and apply them to the appropriate component. In addition, the student should be able to describe the proper application of oxygen fuel cutting (OFC), oxy-fuel heating, shielded metal arc welding (SMAW), flux core arch welding (FCAW), carbon arc cutting with air (CAC-A), thermite welding (TW) and grinding procedures. 3 hrs. lecture/wk.

RRIT 271
Railroad Welding Internship (6 CR)
Prerequisites: Admission to the JCCC railroad program, welding option, and successful completion of RRIT 122 and RRIT 123 and RRIT 136 and RRIT 145 and RRIT 132 with a minimum grade of "C"
Upon successful completion of this course, the student should be able to apply classroom knowledge to an actual work situation. The internship will provide advanced students with on-the-job experience under the supervision of professionals in the railroad industry. The work will be developed cooperatively with railroads, college staff and each student to provide a variety of actual job experiences directly related to the student’s career goals. Minimum of 120 workdays required.

Railroad Maintenance of Way (RRMW)

RRMW 132
Railroad Structures Layout (3 CR)
Prerequisite: Approval of the railroad training administrator and the JCCC program assistant dean
This is a beginning course for railroad maintenance-of-way personnel working with bridge and building personnel working with bridge and building construction. Students will learn to read construction blueprints used in railroad projects and perform layout work for railroad construction. Also, students will learn how to use basic surveying principles and equipment typically used at railroad construction sites. 2 hrs. lecture, 3 hrs. lab/wk.

RRMW 135
Concrete Technology (2 CR)
Prerequisite: Approval of the railroad training administrator and the JCCC program assistant dean
This course contains information that will help experienced and inexperienced students understand the principles of quality concrete. The emphasis will be on allowing concrete to reach its highest level of durability through proper mix design, placing and finishing techniques, and curing methods. 1.5 hrs. lecture, 1 hr. lab/wk.
Railroad Operations (RRT)

RRT 120
History of Railroading (3 CR)
This course covers the history and traditions of railroading and the industry's role in North American economic development. Upon successful completion of this course, students will be able to list and explain the significance of major events in North American railroading. 3 hrs. lecture/wk.

RRT 121
Railroad Technical Careers (3 CR)
This course includes information about technical careers in railroading, enabling students to choose suitable career paths. This course includes field trips that will demonstrate the relationships among technical work groups in day-to-day railroad operations. Upon successful completion of this course, students should be able to describe basic technical job functions, requirements and characteristics. 3 hrs. lecture/wk.

RRT 150
Railroad Operations (3 CR)
This course includes information about the industry, its major assets, structure and typical operations. Upon successful completion of this course, students will be able to define the current North American railroading industry characteristics, basic operations components and processes, and industry structure and administrative processes. 3 hrs. lecture/wk.

RRT 165
Railroad Safety, Quality and Environment (3 CR)
This course covers the importance of safety, quality, personal health and environmental awareness to the railroad industry and emphasizes the basic tools and techniques for improving these conditions on the job. Upon successful completion of this course, students should be able to define and explain the need for improved safety, quality, health and environmental awareness; describe their basic principles; explain the elements of successful programs; and apply these elements to typical tasks on the job. 3 hrs. lecture/wk.

Railroad Operations-Mechanical (RRTM)

RRTM 124
Orientation to the Railroad Mechanical Craft (2 CR)
Prerequisite: Admission to the JCCC railroad operations program, mechanical option
This course is designed to familiarize the student with work in railroad mechanical crafts. Upon successful completion of the course, students should be able to describe apprenticeship program structures, benefits, organizational goals, basic safety and quality principles, and other aspects of mechanical craftwork. 2.5 hrs. lecture/wk.

RRTM 170
Railroad Mechanical Safety and Health (2 CR)
Prerequisite: Admission to the JCCC's railroad operations program, mechanical option, and completion of RRTM 124 with a minimum grade of "C"
This course is designed to teach the principles and policies governing railroad safety and health. Upon successful completion of this course, the student should be able to describe safety and health rules and policies, including applying a team process to improving safety and health, use and care of personal protective equipment, back injury prevention, hazard communications, lockout/tagout procedures, and hearing conservation. Students will be qualified to perform first aid and CPR and will be able to conduct a job safety analysis. 2.5 hrs. lecture/wk.

**RRTM 251**  
**Locomotive Diesel Engine Fundamentals** (2 CR)  
*Prerequisite: Admission to the JCCC railroad operations program, mechanical option, and completion of RRTM 124 and RRTM 170 with a minimum grade of "C"

This course teaches the principles of diesel engine operation. Upon successful completion of this course, students will be able to identify 2-cycle and 4-cycle diesel engine parts and describe how diesel engine lubricating, cooling and fuel systems operate. 1.5 hrs. lecture, 1 hr. lab/wk.

**RRTM 253**  
**Freight Car Fundamentals** (2 CR)  
*Prerequisite: Admission to the JCCC’s railroad operations program, mechanical option, and completion of RRTM 124 and RRTM 170 with a minimum grade of "C"

This course teaches the basic types and purposes of railroad freight cars. Upon successful completion of this course, students will be able to identify five types of railroad freight cars, explain their functions, describe their basic construction and explain purposes and references for AAR rules and regulations governing freight cars. 1.5 hrs. lecture, 1 hr. lab/wk.

**RRTM 254**  
**Basic Locomotive Electricity and Electronics** (2 CR)  
*Prerequisite: Admission to the JCCC’s railroad operations program, mechanical option and completion of RRTM 124 and RRTM 170 with a minimum grade of "C"

This course teaches the theory and operation of electrical and electronic circuitry on board modern locomotives and complements EMD and GE electrical systems classes. Upon successful completion of this course, students will be able to describe the theory and purpose of the processes and operation of locomotive electrical system components and maintenance techniques. 1.5 hrs. lecture, 1 hr. lab/wk.

**Railroad Work Equipment (RRWE)**

**RRWE 136**  
**Basic Electronics** (2 CR)  
*Prerequisite: Approval of the railroad training director and the JCCC program assistant dean"

This course is an introduction to electronics with a review of basic electrical concepts. Instruction is provided on the operation and use of an oscilloscope, function generator, DC power supply, digital multi-meter and watt-meter. The course also includes an introduction to electronic devices, schematics, basic electronic formulas and programmable logic controllers. 1 hr. lecture, 1.5 hrs. lab/wk.

**RRWE 138**  
**Work Equipment Symbols** (2 CR)
This course is designed to introduce the mechanic to the different types of symbols found on railroad track equipment. Major symbols families that will be discussed include mechanical, hydraulic, pneumatic, ladder and logic devices. At the end of each major topic, several small projects will be assigned to ensure that understanding has been achieved. As a final project, students will be assigned a project that will test their ability to use correctly several different families of symbols in one complete working drawing. 1 1/2 hrs. lecture, 1 hr. lab/wk.

**RRWE 146**  
**Hydraulic Principles (2 CR)**  
*Prerequisite: Approval of the railroad training administrator and the JCCC program assistant dean*  
This course is designed for operators and maintenance personnel who use hydraulic systems in their work. Upon successful completion of this course, the student should be able to apply hydraulic principles to improve operational availability of equipment. Students will learn to read hydraulic diagrams and perform preventive maintenance and troubleshooting. In order to explain component operation, there will be extensive use of cut-away components. 1 hr. lecture, 1.5 hrs. lab/wk.

**RRWE 148**  
**Electronic Principles (2 CR)**  
*Prerequisites: Approval of the railroad training administrator and the JCCC program assistant dean*  
This introductory course is designed to familiarize the student with the basic principles of electricity/electronics, the proper usage of a VOM or DMM, the reading of electrical prints in performing basic troubleshooting and the ability to identify basic hardware found in electrical circuits on maintenance-of-way equipment. 1 hr. lecture, 1.5 hrs. lab/wk.

**RRWE 157**  
**Fluid Power Systems (2 CR)**  
*Prerequisite: Approval of the railroad training administrator and the JCCC program assistant dean*  
This course is designed to introduce the field of fluid power. Major topics that will be discussed include the two types of fluid power systems, major parts in a fluid power system and their purpose, the calculations needed to size motors and cylinders, the proper preventive maintenance procedures needed to keep the system operating at peak efficiency, and the troubleshooting methods used to isolate the problem in a system that is not working correctly. 2 hrs. lecture/wk.

**RRWE 190**  
**Advanced Hydraulic Principles (2 CR)**  
*Prerequisites: RRWE 146 and the approval of the railroad training administrator and the JCCC program assistant dean*  
This advanced course contains information on hydraulic components found on the more complex maintenance-of-way equipment. Upon successful completion of this course, the student should be able to understand symbols, describe the theory of operation of and perform basic troubleshooting tasks on these components. 1 hr. lecture, 1.5 hrs. lab/wk.

**RRWE 192**  
**Advanced Electronic Principles (2 CR)**
Prerequisites: RRWE 146 and the approval of the railroad training administrator and the JCCC program assistant dean

This advanced course contains information on electronic components and circuits found on the more complex maintenance-of-way equipment. Upon successful completion of this course, the student should be able to understand symbols, describe the theory of operation of and perform basic troubleshooting tasks on these components. 1 hr. lecture, 1.5 hrs. lab/wk.

Reading (RDG)

RDG 125
Fundamentals of Reading (3 CR)
Prerequisite: Appropriate assessment score

This is a mandatory reading course based on JCCC assessment results. It is designed for students who need to improve their understanding of written expression. The focus is on the development of vocabulary, dictionary usage, comprehension and written communication. The next course, RDG 126: Reading Skills Improvement, is also required to complete the mandatory reading program. This course does not fulfill degree requirements. 3 hrs./wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $2 to 5.

RDG 126
Reading Skills Improvement (3 CR)
Prerequisite: Appropriate test score or either RDG 125 or EAP 093 and EAP 115

This is the final mandatory reading course based on JCCC assessment scores. It is designed for students who need to improve their understanding of written expression. The focus of the course is on higher-level comprehension and vocabulary skills. Students use a weekly news magazine to apply and practice skills learned in the class and to provide a background for written assignments. 3 hrs./wk. This course does not fulfill degree requirements.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $2 to 5.

RDG 127
College Reading Skills (3 CR)
Prerequisite: RDG 126 or LC 126 or appropriate assessment score

In this advanced course, designed for students who wish to further improve their reading, students will develop critical reading skills, expand background knowledge through reading, increase vocabulary, develop flexible reading techniques, and improve study and writing skills. Students use selected periodicals to apply and practice skills learned in the class and to provide a background for written assignments and class discussions. 3 hrs./wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $2 to 5.

Religion (REL)

REL 120
Exploring World Religions (3 CR)

This course is a comparative study of the world's major religious traditions. The basic beliefs of Hinduism, Buddhism, Confucianism, Taoism, Judaism, Christianity and Islam will be explored. A comparative framework for religious studies will be provided, and essential differences between Eastern and Western religions will be noted. Literary texts and iconographic images will be studied as appropriate. 3 hrs. lecture/wk.
REL 125
Religions of the East (3 CR)
Religions of the East is a detailed examination of the rich and diverse religious traditions of India, Tibet, China and Japan. Students will explore the histories, mutual influences, beliefs, and practices of Hinduism, Buddhism, the Jain religion, the Sikh religion, Confucianism, Daoism, the Tibetan religions, and Shinto, stressing the characteristics they share, as well as those that differentiate them from each other and from Western religions. Primary and secondary texts, as well as the iconographic and artistic traditions of these religions, will be examined as appropriate. 3 hrs. lecture/wk.

REL 126
Religions of the West (3 CR)
Religions of the West is a detailed examination of the rich and diverse religious traditions that originated in the ancient Near East (Judaism, Christianity, Islam), examples of indigenous traditions of Africa and North America, and examples of “alternative religions” of modern/contemporary Western culture. The student will explore the histories, cultural influences, beliefs and practices of these religions, stressing the characteristics that they share and those that differentiate them, both from one another and from the religious traditions of South and East Asian cultures. The primary texts, as well as the iconographic and artistic traditions of these religions, will be examined as appropriate. 3 hrs. lecture/wk.

Respiratory Care (RC)

RC 125
Beginning Principles of Respiratory Care (4 CR)
Prerequisite: Admission to the respiratory care program
This is an introduction to the basic therapeutic modalities used in respiratory care, including patient safety and comfort considerations, infection control and standard precautions, medical gas delivery, humidity and aerosol therapy, basic respiratory pharmacology, secretion clearance techniques and lung expansion therapy. Emphasis is on patient assessment, clinical application of therapies, therapy evaluation and communication techniques. The roles of respiratory care in the health care system and basic respiratory care service scope, organization and operation are also introduced. Students will have the opportunity to work with patients after two to three weeks of introductory lecture and lab demonstration and practice. 6 hrs. lecture, 16 hrs. lab/wk. Summer.
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $150 to 250.

RC 130
Respiratory Care Equipment (4 CR)
Prerequisite: Admission to the respiratory care program
This course is an introduction to basic respiratory care equipment. The operation, function, calibration, troubleshooting and maintenance for oxygen administration devices, aerosol generators, humidifiers and hyperinflation devices will be addressed. Medical gas production and storage will also be addressed. 6 hrs. lecture, 8 hrs. lab/wk. Summer.

RC 135
Cardiopulmonary Medicine I (1 CR)
Prerequisite: Admission to the respiratory care program
This is the first of three courses that provide a detailed review of the respiratory and cardiac system anatomy and physiology and the clinical implications of normal and abnormal function. 2 hrs./wk. Summer.
RC 220
Cardiopulmonary Physiology (2 CR)
Prerequisite: Successful completion of the summer sequence of respiratory care courses
This is a comprehensive study of the physiology and pathophysiology of the pulmonary, cardiovascular and renal systems as they relate to respiratory care. 2 hrs./wk. Fall.

RC 230
Clinical Topics and Procedures I (4 CR)
Prerequisite: Successful completion of the summer sequence of respiratory care courses
This course supplements the fall clinical experiences. Concepts, techniques and procedures learned in the summer semester are reinforced. The student will develop new understandings and skills in the acute care, basic emergency care and introductory-level critical care settings. Emphasis will be on arterial blood gas procurement and analysis, cardiac rhythm assessment and management, airway equipment and management procedures, patient management of obstructive lung disorders, perioperative care and chest trauma. In addition, basic mechanical ventilation concepts and techniques will be addressed as they relate to physiologic effects, ventilator commitment, management and basic troubleshooting. 3 hrs. lecture, 3 hrs. lab/wk. Fall.

RC 231
Clinical Topics and Procedures II (4 CR)
Prerequisite: Successful completion of the fall sequence of respiratory care courses
This course supplements the spring clinical experiences. Concepts, techniques and procedures learned in the fall semester are reinforced. The student will refine understandings of and skills in the acute care, basic emergency care and critical care settings. Emphasis will be on ventilator management of patients with specific lung insults, neurological compromise and cardiac problems. Advanced mechanical ventilation concepts and techniques will be addressed as they relate to physiologic effects, management and troubleshooting. Home care, pulmonary rehabilitation, physician-assisted procedures, cardiopulmonary stress testing, patient case management and department management will be addressed. 3 hrs. lecture, 3 hrs. lab/wk. Spring.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $200 to 600.

RC 233
Respiratory Care of Children (2 CR)
Prerequisite: RC 230
The focus will be on the respiratory care of neonatal and pediatric patients, with emphasis on the management of cardiopulmonary disease states unique to children. Information will be based on developmental anatomy and physiology, pathology, diagnostic/laboratory assessments, and associated patient management in the acute, critical, emergency care, transport and home care settings. 2 hrs./wk. Spring.

RC 235
Cardiopulmonary Medicine II (2 CR)
Prerequisite: Successful completion of the summer sequence of respiratory care courses
This is the second in a series of three courses that provide a detailed review of the physical and diagnostic assessments of the cardiopulmonary patient and the
related clinical implications of the assessment finding. 2 hrs. lecture/wk. Fall.

**RC 236**  
**Cardiopulmonary Medicine III (2 CR)**  
*Prerequisite: Successful completion of the fall sequence of respiratory care courses*  
This is the third in a series of three courses that provide a detailed review of pulmonary disorders, their pathology and their management. 2 hrs. lecture/wk. Spring.

**RC 240**  
**Cardiopulmonary Pharmacology (2 CR)**  
*Prerequisite: Successful completion of the summer sequence of respiratory care courses*  
This course acquaints the student with general principles of pharmacology and provides a comprehensive review of all drugs and drug groups that are either administered by respiratory-care practitioners or play an integral part in the management of patients they may encounter. Emphasis is on the clinical application of pharmacological agents, their therapeutic effects, mechanism of action and adverse effects, rather than the biochemistry involved. 2 hrs. lecture/wk. Fall.

**RC 271**  
**Clinical Practice I (6 CR)**  
*Prerequisite: Successful completion of the summer sequence of respiratory care courses*  
This course is the clinical application of respiratory care therapeutic and diagnostic procedures. Students will have the opportunity to work with patients under close supervision to further develop their skill and understanding of basic respiratory care procedures for adults and children. The course objectives progress throughout the semester to involve the student initially in basic care of the less critically ill patient. As their comfort level and exposures progress, students are allowed to work with the more critically ill patients. 24 hrs./wk. Fall.  
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $100 to 200.

**RC 272**  
**Clinical Practice II (6 CR)**  
*Prerequisite: Successful completion of the fall sequence of respiratory care courses*  
This course is the clinical application of respiratory care therapeutic and diagnostic procedures. Students will have the opportunity to work with patients under close supervision to further develop their skill and understanding of critical respiratory care procedures for adults and children. Students will also be involved in specialty activities to include physician rounds, pulmonary rehabilitation, home care, pulmonary function and cardiopulmonary stress testing. 24 hrs./wk. Spring.  
Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $200 to 600.

**Sociology (SOC)**

**SOC 122**  
**Introduction to Sociology (3 CR)**
Introduction to Sociology introduces students to sociology, the "science of society," and its approach to human social life. The course shows students how sociologists conduct research, and it describes the basic concepts and theories sociologists use to explain the social world. This course may be offered as a Learning Communities (LCOM) section; see current credit schedule for LCOM details.

SOC 125
Social Problems (3 CR)
Selected social problems will be analyzed. Problems associated with race, gender, class, deviance, crime and ecology will be examined as perennial issues in contemporary society. In addition, other topics will be analyzed as they arise or as the instructor and students determine them to be significant. The history and development of each problem, as well as possible solutions, will be examined from a variety of perspectives. 3 hrs. lecture/wk.

SOC 131
Marriage and the Family (3 CR)
This is a sociological examination of marriage and the family as a social institution. It will emphasize changing roles, family formation, socialization, domestic conflict, interaction among family members and marriage partners, and the role of marriage and the family in society. 3 hrs./wk. This course may be offered as a Learning Communities (LCOM) section; see current credit schedule for LCOM details.

SOC 146
Introduction to Social Work and Social Welfare (3 CR)
This course will introduce the student to the profession of social work and to the history and development of social welfare and social service systems in the United States. This is a required introductory course in the sequence of study leading to a professional degree (BSW, MSW or DSW) in social work. 3 hrs./wk.

SOC 147
Social Work and Social Justice (3 CR)
The history of social movements in the United States will be integrated into exploration of current economic, political, religious and psychosocial issues, at micro and macro practice levels, relevant to the professional practice of social work at the BSW or MSW level of practice. This course is designed to support the National Association of Social Workers (NASW) Code of Ethics and Council of Social Work Education (CSWE) requirements for culturally competent practice. 3 hrs./wk.

SOC 152
Perspectives on Aging (3 CR)
Social aspects of aging will be identified. Areas of special interest will include research themes and demographic trends; aging and its relationship to family, the economy, politics, religion and education; the effect of cultural values on behavior; and the future of the elderly. 3 hrs./wk.

SOC 165
Chinese Society: Past and Present (3 CR)
An introduction to Chinese society since 1949, this course examines Chinese society and culture and focuses on contemporary social change while tracing the historical roots of Chinese culture and institutions. Social processes such as
social movements, institutional development, political change, social organization and conflict are examined and analyzed. 3 hrs. lecture/wk. This course is typically offered in the spring semester.

**SOC 200**  
**Intercultural Applications** (3 CR)  
*Prerequisite or corequisite: SPD 180*  
This course will provide students with direct experience with people from other cultures and in community organizations. Through their work with international representatives and service agencies, students will gain experiential and reflective knowledge of various cultures, social institutions and social issues and will develop skills needed to successfully negotiate intercultural settings. Enrollment in the course requires participation in a weekend retreat and some additional hours in activities outside the classroom. 3 hrs. lecture/wk. This course is typically offered in the spring semester.

**SOC 210**  
**Methodology in Social Sciences** (3 CR)  
*Prerequisite: PSYC 130 or SOC 122 or ECON 230*  
This course deals with scientific research methods utilized in the social sciences, especially psychology, sociology, political science, and anthropology. The course examines a wide range of data collection methodologies including observation, questionnaire construction, and controlled experimentation. The course will be beneficial for analyzing and evaluating the quality of research findings reported in both the popular and academic press. It will also be useful to those who plan to engage in occupations requiring the use of research methodology. 3 hrs. lecture/wk. SOC 210 and PSYC 210 are the same course. Do not enroll in both.

**Speech/Debate (SPD)**

**SPD 120**  
**Interpersonal Communication** (3 CR)  
This course focuses on the principles of effective speech communication in small group and one-to-one relationships. Theory and practice of interpersonal communication are studied and applied to a variety of life situations. The course focuses on perception, self-concept, listening, conflict, language, nonverbal and culture as they relate to specific interpersonal relationships. 3 hrs./wk. This course may be offered as a Learning Communities (LCOM) section, see current credit schedule for LCOM details.

**SPD 121**  
**Public Speaking** (3 CR)  
This course is designed to meet the needs of people who wish to improve their ability to prepare and deliver effective oral presentations before an audience. This fundamental speech course emphasizes creation of ideas, research techniques, outlining, audience analysis, organization and delivery techniques. Students will deliver a variety of speech types including informative and persuasive. 3 hrs./wk.  
*Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $1 to 5.*

**SPD 125**  
**Personal Communication** (3 CR)  
This course is concerned with the most frequently used human communication skills, interpersonal communication and public speaking. The course demonstrates the natural relationships between communicating one-to-one and in
public, showing that skills in one can be employed in the other and giving practice in both. Focus is on communication theory, listening, concepts of self, language, research techniques, perception and various types of public speaking, such as impromptu, group panel, informative and persuasive. 3 hrs./wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $1 to 5.

SPD 128
Business and Professional Speech (3 CR)
Students will improve their verbal communication skills both formally and informally by studying interviewing, delivering effective presentations, working in groups, negotiating, practicing listening, and recognizing verbal and nonverbal messages. The course is designed for the student presently working in business or planning to pursue a business degree. 3 hrs./wk.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $1 to 5.

SPD 130
Elementary Debate (3 CR)
This course is designed for those students interested in participating in competitive intercollegiate debate. Through the course, students will learn debate theory, debate skills and techniques, and methods of becoming successful intercollegiate competitors. Students are expected to travel to tournaments in order to develop skills in research, argument construction, debate format, intercollegiate debate speaking style and refutation. Students enrolling in this course will be required to participate as members of the intercollegiate debate team and will attend an appropriate number of weekend intercollegiate debate tournaments a semester. 3 hrs./wk.

SPD 132
Intermediate Debate I (3 CR)
Prerequisite: SPD 130 or the equivalent
This course is designed for those students interested in participating in competitive intercollegiate debate. Through the course, students will learn debate theory, debate skills and techniques, and methods of becoming successful intercollegiate competitors. Students are expected to travel to tournaments in order to develop skills in research, argument construction, debate format, intercollegiate debate speaking style and refutation. Students enrolling in this course will be required to participate as members of the intercollegiate debate team and will attend an appropriate number of weekend intercollegiate debate tournaments a semester. 3 hrs./wk.

SPD 140
Oral Interpretation of Literature (3 CR)
The student will develop techniques for effective spoken performance of literature. Using poetry, fiction and nonfiction, students will create literary interpretations and then master both the verbal and nonverbal methods necessary for effective spoken expression of those interpretations. This course includes topics such as selecting literary works for performance, interpretation of literary works, audience analysis and performance. Skills acquired in this course will be essential to actors, broadcast journalists, educators and other public speakers. 3 hrs./wk.

SPD 141
Voice and Speech (3 CR)
The student will develop techniques to expand breath support, vocal range and dynamics; develop precise articulation; and strengthen the connection between thought and sound. Through the use of exercises to free, develop and strengthen the voice, the student will be better able to communicate the full range of human
emotion and all the nuances of thought. Skills acquired in this course are essential for actors, broadcast journalists, educators and other public speakers. 3 hrs./wk.

**SPD 180**
**Intercultural Communication (3 CR)**
The intercultural communication course is concerned with communication theory across cultures. This course utilizes concepts drawn from sociology, psychology, anthropology and communication. Focus is on identifying the cultural bases of beliefs, attitudes, values and behaviors. Objectives include recognizing commonalities across cultures, tolerating ambiguity in a variety of situations, developing a more global multicultural perspective, identifying and appreciating other cultural orientations, and recognizing and assigning cultural explanations to specific behaviors. The intercultural communication course is concerned with communication theory as it relates to cross-culture interactions. 3 hrs/wk.

**SPD 230**
**Intermediate Debate II (3 CR)**  
*Prerequisite: SPD 132 or the equivalent*
This course is designed for students interested in participating in competitive intercollegiate debate. Through the course, students will learn debate theory, debate skills and techniques, and methods of becoming successful intercollegiate competitors. Students are expected to travel to tournaments in order to develop skills in research, argument construction, debate format, intercollegiate debate speaking style and refutation. Students enrolling in this course will be required to participate as members of the intercollegiate debate team and will attend an appropriate number of weekend intercollegiate debate tournaments a semester. 3 hrs./wk.

**SPD 235**
**Advanced Debate (3 CR)**  
*Prerequisite: SPD 230 or the equivalent*
This course is designed for students interested in participating in competitive intercollegiate debate. Through the course, students will learn debate theory, debate skills and techniques, and methods of becoming successful intercollegiate competitors. Students are expected to travel to tournaments in order to develop skills in research, argument construction, debate format, intercollegiate debate speaking style and refutation will be developed. Students enrolling in this course will be required to participate as members of the intercollegiate debate team and will attend an appropriate number of weekend intercollegiate debate tournaments a semester. 3 hrs./wk.

**Surgical Technology (KST)**

**KST 100**
**Introduction to Surgical Technology (2 CR)**
Explores historical aspects of surgery, health care facilities, and organizations. Includes the roles, duties, and responsibilities of the surgical team members. Ethical, legal and moral issues in health care and surgery are addressed. Focuses on effective communication skills, accurate medical terminology, and the impact of transcultural psychosocial outcomes for clients in the surgical setting. 4 hrs. lecture/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of surgical technology about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

**KST 102**
Fundamentals of Operating Room Technique (11 CR)

Prerequisite: The student must meet the entrance requirements and be accepted into the surgical technology program.

Applies principles of medical and surgical asepsis. Focuses on preparation of the sterile field, identification of instruments, sutures, supplies and equipment. Emphasis is on basic skills of the surgical technologist in preparation for and during the operative procedure. 6 hrs. lecture, 15 hrs. clinical/wk. Practices maintaining a safe client environment and includes the responsibilities and duties of surgery personnel. Common surgical techniques and procedures. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of surgical technology about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KST 104

Body Structure and Function (2 CR)

Prerequisite: Students must meet entrance requirements and must be accepted into the surgical technology program.

Introduces students to the major structures and functions of the human body. Is taught according to body systems. Laboratory time is used to introduce and reinforce classroom instruction. 1 hr. lecture, 1 hr. lab/wk. Course taught at Penn Valley Community College. Students should contact the Penn Valley coordinator of surgical technology about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KST 105

Pharmacology for the Surgical Technologist (2 CR)

Development of knowledge and understanding of the metric, apothecary, household, and linear systems of measurement. The conversion of equivalents from one system to another. Focus is on terminology associated with pharmacology and procedures for safe and accurate handling of medications and solutions. Included is discussion of principles of anesthesia administration, post-anesthesia client care, and care in emergencies. 2 hrs. lecture/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of surgical technology about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KST 106

Aseptic Technique for the Surgical Technologist (2 CR)

Study of structure, function and pathogenicity of micro-organisms, immune and infectious responses. An emphasis is placed on principles of sterilization, disinfecting, environmental sanitation, and practices that promote optimal healing. 4 hrs. lecture/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of surgical technology about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KST 109

Principles/Surgical Procedure I (8 CR)

Focus is on the diagnosis, pathology and surgical sequence of general surgery, gynecological surgery, genitourinary surgery and laparoscopic surgery. Included is discussion of postoperative care and complications. 4 hrs. lecture, 12 hrs clinical/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of surgical technology about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KST 110

Principles/Surgical Procedure II (7 CR)

Focus is on diagnosis, pathology and surgical sequence of general surgery, gynecological surgery, genitourinary surgery and laparoscopic surgery. Included
is a discussion of postoperative care and complications. 3 hrs. lecture, 12 hrs. clinical/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of surgical technology about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KST 111
Career Development for the Surgical Technologist (2 CR)
Resume development, interviewing techniques and introduction to the current health care market. Emphasis is on self-evaluation of professional skills and their application to the health care market. 2 hrs. lecture/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of surgical technology about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

KST 114
Principles/Surgical Proced III (7 CR)
Focus is on diagnosis, pathology and surgical sequence with complex surgical specialties: neurosurgery, cardiovascular and peripheral vascular, thoracic, pediatric, geriatric, trauma and surgery. Included is discussion of postoperative care and complications. 4 hrs. lecture, 9 hrs. clinical/wk. Course taught at MCC-Penn Valley Community College. Students should contact the Penn Valley coordinator of surgical technology about the class meeting times and beginning and ending dates of classes. Call 816-759-4000.

Theater (THEA)

THEA 120
Introduction to Theater (3 CR)
Students will be introduced to a variety of theatrical experiences, read great plays and see live theater presentations. They also will discuss theater practices, dramatic literature and the history of the theater. Includes 12 required shop hours. 3 hrs./wk.

THEA 123
Improvisation for the Theater (2 CR)
Prerequisite: THEA 130
The student will be introduced to theater improvisation, which will emphasize creative stage activities not requiring a written script. Participation in activities of this course will release and enhance the work of serious acting students and show the students how to approach characterization viscerally rather than intellectually, spontaneously rather than intentionally. 2 hrs. lecture/wk.

THEA 130
Acting I (3 CR)
The fundamentals of acting will be studied in this class. Emphasis will be on discovering and expanding creative potential through exercises in self-awareness, posture, movement, voice and personality projection. Students will complete a minimum of three in-class performances. 3 hrs./wk. plus rehearsals and performances.

THEA 131
Voice and Speech (3 CR)
The student will develop techniques to expand breath support, vocal range and
dynamics; learn precise articulation; and strengthen the connection between thought and sound. Through the use of exercises to free, develop and strengthen the voice, the student will be better able to communicate the full range of human emotion and all the nuances of thought. Skills acquired in this course are essential for actors, broadcast journalists, educators and other public speakers. 3 hrs. lecture/wk. This course is typically taught in the fall semester.

THEA 133
Technical Practicum I (1 CR)
Students gain practical experience in technical theater in this course. The student completes the course objectives by working in the theatre department's productions and/or working in the scene/costume shop during the semester. 2 hrs. lab/wk.

THEA 134
Performance Practicum I (1 CR)
This course will enable students to gain practical experience in performance-related aspects of college theater productions. Admission may be granted upon being cast in a JCCC production. 2 hrs. lab/wk.

THEA 135
Stage Makeup (2 CR)
An introductory course designed to provide an understanding of, and practical skill in, the design and application of makeup for theatrical performance. 1 hr. lecture, 1 hr. lab/wk. This course is typically taught in the spring semester.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $30 to 60.

THEA 136
Basic Costuming (3 CR)
This is a survey of the theory, techniques and skills used in costume creation for the theater and film. Areas of study and practice include basic construction, patterning and cutting; fabrics, design and realization; millinery; craftwork; and organization. 2 hrs. lecture, 2 hrs. lab/wk. This course is typically taught in the fall semester.

THEA 137
Movement for the Stage (3 CR)
The student will develop techniques to expand kinesthetic awareness, flexibility, physical freedom and the language of movement. Through the use of exercises to free, develop and strengthen physical vocabulary, the student will be better able to communicate the physical life of a character. Skills acquired in this course will include mime, stage combat, commedia, improvisation and circus techniques. 3 hrs. lecture/wk. This course is typically taught in the spring semester.

THEA 138
Oral Interpretation of Literature (3 CR)
The student will develop techniques for effective spoken performance of literature. Using poetry, fiction and nonfiction, students will create literary interpretations and then master both the verbal and nonverbal methods necessary for effective spoken expression of those interpretations. This course includes topics such as selecting literary works for performance, interpretation of literary works, audience analysis and performance. Skills acquired in this course will be essential to actors, broadcast journalists, educators and other public speakers. 3 hrs. lecture/wk. This course is typically taught in the fall semester.
THEA 140
Basic Stagecraft (3 CR)
This course introduces the general student and theater major to basic stagecraft. Through lectures, in-class demonstrations and hands-on experiences, the student will gain a working and appreciative knowledge of technical theater. The course includes 15 lab hours and attendance at two live theatrical productions. 2 hrs. lecture, 2 hrs. lab/wk. This course is typically offered in the fall semester.

THEA 145
Introduction to Theater Design (3 CR)
This lecture and studio class introduces the theory and practice of theater design and the graphics and standards of entertainment technology. Emphasis will be on the processes and practices used in designing for the performing arts. Using course-taught computer and hand-based drawing techniques, the student will create a portfolio of his or her work through in-class projects. 2 hrs. lecture, 2 hrs. lab/wk. This course is typically offered in the spring semester.

Associated Costs: In addition to the course tuition, fees, and textbooks, this course has additional expense considerations that are estimated to be $20 to 80.

THEA 209
Script Analysis (3 CR)
Script Analysis introduces students to those methods used in the theater for the study and/or analysis of plays. Directors, actors and designers use script analysis during their preparatory work and then continue to use it through the rehearsal process until, and sometimes even after, the production has finished. This course is of value to the student because it focuses on the crucial elements of a play encountered during the production process including dramatic structure, content and meaning. 3 hrs. lecture/wk. This course is typically offered in the fall semester only.

THEA 225
Reader's Theater (3 CR)
Prerequisite: THEA 138
Students will combine acting, interpretation and rhetoric as they analyze and perform poetry, prose and dramatic literature and present public performances. Through the process of reading, studying, investing, rehearsing and performing literary and nonliterary works, the student will learn to pay particular attention to the voice embodied in a given text and the cultural and social context within which that voice speaks. 3 hrs./wk. plus rehearsals. This course is typically taught in the spring semester.

THEA 230
Acting II (3 CR)
Prerequisite: THEA 130
This continuation of Acting I will focus on more in-depth character analysis and development, emphasizing the actor’s responsibility in creating the character. 3 hrs./wk. plus rehearsals and performances.

THEA 233
Technical Practicum II (1 CR)
Prerequisite: THEA 133
Students gain practical experience in technical theater in this course. The student completes the course objectives by working on the theatre department’s productions and/or working in the scene/costume shop during the semester. 4 hrs. lab/wk.
THEA 234
Performance Practicum II (1 CR)
Prerequisite: THEA 134
This course will enable students to gain further practical experience in the performance-related aspects of college theater productions. Admission may be granted upon being cast in a JCCC production. 2 hrs. lab/wk.

THEA 235
Technical Practicum III (2 CR)
Prerequisite: Permission of the instructor
Students will gain professional technical theater experience in this course by working as an apprentice for the theater department and an outside professional performing arts agency. While on campus and/or on location, students will build and install a stage and/or scenery as they work alongside theater professionals to execute theatrical productions. 4 hrs. lab/wk. This course is offered in summer only; permission from instructor is required to enroll.

THEA 240
Costuming (1 CR)
A 16-week course designed to introduce basic techniques in costume design and research and to provide an overview of the scope and impact of costume as a technical and artistic aspect of theater and film. 1 hr. lecture, 1 hr. lab/wk. This course is typically taught in the spring semester.

Veterinary Technology (KSAH)

KSAH 100
Introduction to Veterinary Technology (2 CR)
Orientation to career opportunities available in veterinary technology. Professional ethics, public relations and the psychological adjustment of the student in terms of understanding the need for physical treatment and care of animals. Client relations, vaccination programs, regulatory organizations, receptionist duties, breeds and breed characteristics, neutering, puppy care, diets and hospital management. 2 hrs. lecture/wk. Course taught at MCC-Maple Woods Community College. Students should contact the Maple Woods coordinator of veterinary technology about the class meeting times and beginning and ending dates of classes. Call 816-437-3000.

KSAH 101
Principles of Animal Science I (3 CR)
Principles of handling, housing and management of animals. Basic dietary and sanitation requirements. Restraint and handling, administration of medications, bathing, skin scraping, and basic laboratory tests. Emphasis on animal physiology including the cell, muscle, nervous, respiratory and cardiovascular systems. Introduction to anesthesia and general animal nursing. 2 hrs. lecture, 2 hrs. lab/wk. Course taught at MCC-Maple Woods Community College. Students should contact the Maple Woods coordinator of veterinary technology about the class meeting times and beginning and ending dates of classes. Call 816-437-3000.

KSAH 108
Clinical Math (1 CR)
The metric system and conversion of units; apothecaries' equivalents and vocabulary; preparation of solutions -- strengths, procedures and computations; and drug administration -- calculating and measuring dosages -- will be covered. 1
hr./wk. Course taught at Maple Woods Community College. Students should contact the Maple Woods coordinator of veterinary technology about the class meeting times and beginning and ending dates of classes. Call 816-437-3000.

KSAH 110
Principles of Animal Science II (3 CR)
Prerequisite: KSAH 101
Anesthesia and the physiology of the digestive, urinary, endocrine and reproductive systems. Blood and specimen collection, basic bandaging and introduction to surgical preparation and radiographic processing. 2 hrs. lecture, 2 hrs. lab/wk. Course taught at MCC-Maple Woods Community College. Students should contact the Maple Woods coordinator of veterinary technology about the class meeting times and beginning and ending dates of classes. Call 816-437-3000.

KSAH 111
Sanitation and Animal Care (2 CR)
Introduction to microorganisms, sanitation, disinfectants, sterilization and Zoonotic diseases and public health problems. Introduction to parasitology, vermin control, specimen preservation, instrument identification, cleaning and sterilization, and sanitary procedures in patient care. 1 hr. lecture, 2 hrs. lab/wk. Course taught at MCC-Maple Woods Community College. Students should contact the Maple Woods coordinator of veterinary technology about the class meeting times and beginning and ending dates of classes. Call 816-437-3000.

KSAH 200
Veterinary Hospital Technology I (3 CR)
Prerequisite: KSAH 101 and KSAH 110
Administration of anesthetics and surgical assisting, bandaging, casting, blood transfusions, surgical preparations and postoperative procedures, parenteral fluid administration, and intravenous hookups. Introduction to orthopedics, electrocardiography, bone marrow cytology, and pharmacology. 1 hr. lecture, 4 hrs. lab/wk. Course taught at MCC-Maple Woods Community College. Students should contact the Maple Woods coordinator of veterinary technology about the class meeting times and beginning and ending dates of classes. Call 816-437-3000.

KSAH 201
Clinical Pathology Techniques I (4 CR)
Introduction to laboratory procedures including preparation of blood smears, cell identification, fecal analysis and parasitology. Urinalysis and urine sediment valuation. 1 hr. lecture, 6 hrs. lab. Course taught at MCC-Maple Woods Community College. Students should contact the Maple Woods coordinator of veterinary technology about the class meeting times and beginning and ending dates of classes. Call 816-437-3000.

KSAH 202
Veterinary Anatomy (5 CR)
Prerequisite: BIOL 101 (Maple Woods) or BIOL 127 and KSAH 101 and 110
Basic principles of anatomy using a systemic approach. Physiology as it relates to anatomy and applicable pathology involving the animal body systems. Comparison of the animal species using the cat for dissection. 3 hrs. lecture, 4 hrs. lab/wk. Course taught at MCC-Maple Woods Community College. Students should contact the Maple Woods coordinator of veterinary technology of veterinary technology about the class meeting times and beginning and ending dates of classes. Call 816-437-3000.

KSAH 203
Laboratory Animal Technology (2 CR)
Prerequisites: KSAH 101, KSAH 110 and KSAH 201
Restraint and handling of laboratory animals and birds. Blood collection, restraint, identification, medicating, anesthesia and specimen collection. Technical skills for laboratory animal research. 1 hr. lecture, 2 hrs. lab /wk. Course taught at MCC-Maple Woods Community College. Students should contact the Maple Woods coordinator of veterinary technology about the class meeting times and beginning and ending dates of classes. Call 816-437-3000.

KSAH 209
Equine Medicine and Management (3 CR)
Prerequisite: KSAH 212
Breeds and types of horses and their use. A study of conformation as it relates to soundness, horse psychology, fitting, conditioning, first aid and restraint. Parasites and their control, farm management for safety, nutrition, mare care, breeding, foaling, hoof soundness, equine diseases and their prevention. Laboratory procedures. 2 hrs. lecture, 2 hrs. lab/wk. Course taught at MCC-Maple Woods Community College. Students should contact the Maple Woods coordinator of veterinary technology about the class meeting times and beginning and ending dates of classes. Call 816-437-3000.

KSAH 210
Veterinary Hospital Technology II (3 CR)
Prerequisite: KSAH 200
Introduction of anesthetics, surgical assisting, bandaging, casting, blood transfusions, surgical preparations and postoperative care. Administration of parenteral fluid and emergency treatments. Introduction to ophthalmology and dermatology. 1 hrs. lecture, 4 hrs. lab/wk. Course taught at MCC-Maple Woods Community College. Students should contact the Maple Woods coordinator of veterinary technology about the class meeting times and beginning and ending dates of classes. Call 816-437-3000.

KSAH 211
Clinical Pathology Techniques II (5 CR)
Prerequisite: KSAH 201
Theory and performance in hematologic, urinalysis, clinical chemistry and parasitology. Introduction to simple immunologic tests, blood coagulation tests, and bone marrow evaluation. Emphasis on hematology and hemoparasites. 2 hrs. lecture, 6 hrs. lab/wk. Course taught at MCC-Maple Woods Community College. Students should contact the Maple Woods coordinator of veterinary technology about the class meeting times and beginning and ending dates of classes. Call 816-437-3000.

KSAH 212
Large Animal Technology (4 CR)
Prerequisites: KSAH 101 and KSAH 110
Techniques necessary to assist the veterinarian in a large animal or mixed practice and in research facilities. Bovine, porcine, ovine and caprine medicine and management, including restraint, blood collection, medicating and nursing techniques. 2 hrs. lecture, 4 hrs. lab/wk. Course taught at MCC-Maple Woods Community College. Students should contact the Maple Woods coordinator of veterinary technology about the class meeting times and beginning and ending dates of classes. Call 816-437-3000.

KSAH 213
Radiology and Electronic Procedures (2 CR)
Intensive study and practice in radiological techniques, radiographic exposure
techniques, film processing, contrast radiography and machine electronics. 1 hr. lecture, 2 hrs. lab/wk. Course taught at MCC-Maple Woods Community College. Students should contact the Maple Woods coordinator of veterinary technology about the class meeting times and beginning and ending dates of classes. Call 816-437-3000.

KSAH 214

Veterinary Technician Internship (6 CR)

Prerequisite: Two semesters of first-year veterinary technology courses

Supervised intensive clinical study under the direction of a cooperating veterinarian to provide 420 hours of actual work experience. 40 hrs. field study/wk. Course taught at MCC-Maple Woods Community College. Students should contact the Maple Woods coordinator of veterinary technology about the class meeting times and beginning and ending dates of classes. Call 816-437-3000.

Continuing Education Certificate Programs

Continuing education class schedules are available from the continuing education class search open and closed class list.

A+, Certificate in

Access Specialist Certificate

Adobe Graphics and Design

Audio Recording Engineering, Certificate in

Complementary and Alternative Medicine, Certificate in

End of Life Care, Certificate

Excel Specialist Certificate

Gerontology, Certificate in

Intensive English Program

Macromedia Web Design, Certificate in

Medical Coding Certification

Microsoft Certified Desktop Support Technician
Microsoft Certified Systems Administrator
Microsoft Certified Technical Specialist: SQL 2005
Network+, Certificate in
Oracle DBA Associate, Certificate in
Oracle DBA Professional, Certificate in
Powerpoint Specialist Certificate
Project Management Certificate
Security+ Certificate
Spirituality, Health, Healing
Therapeutic Massage Certificate

**A+, Certificate in**

Start your IT training off in the right direction, from the ground up. Build a solid foundation with our A+ Operating Systems and A+ Hardware classes, then receive all the materials supplied in our A+ Operating Systems and A+ Hardware Test Prep classes for complete A+ exam preparation. Mapped toward both of CompTIA’s A+ exams, this series will help prepare you for the industry recognized A+ certification. The exam vouchers alone have a $290 value. 56 contact hours. See individual classes for detailed descriptions and outlines.

**Required Courses**

- XCM 8252  A+ Hardware
- XCM 8255  A+ Operating System
- XCM 8254  A+ Hardware Test Prep
- XCM 8253  A+ Operating System Test Prep

**Access Specialist Certificate**

Receive instruction in our complete lineup of Access classes. Build a solid foundation with Access Fundamentals and Access Intermediate before moving on to more advanced topics in Access Advanced. Once completed, either take the MOS exam at participating Prometric testing centers or use your Center for Business Access Specialist Certificate to verify your competency. 21 classroom hours.

Prerequisite: Knowledge of Windows OS, ability to use keyboard and mouse with proficiency and a basic knowledge of database use.

See individual classes for detailed descriptions and outlines.
Required Courses:

XCM 4220 Access Fundamentals
XCM 4225 Access Intermediate
XCM 4230 Access Advanced

Adobe Graphics and Design


See individual classes for detailed descriptions and outlines.

Required Courses:

XCM 1584 Adobe Graphics and Design Series
XCM 4000 Adobe PhotoShop Fundamentals
XCM 4002 Adobe PhotoShop Advanced
XCM 1586 Adobe GoLive Fundamentals
XCM 1587 Adobe GoLive Advanced
XCM 1588 Adobe InDesign Fundamentals
XCM 1589 Adobe InDesign Advanced
XCM 1585 Adobe Acrobat Fundamentals
XCM 4100 Adobe Illustrator Fundamentals
XCM 4102 Adobe Illustrator Advanced

Audio Recording Engineering, Certificate in

If you are interested in a studio career, JCCC’s Audio Recording Engineering Certificate Program provides a focused two-year education. All recording classes are taught by experienced, working audio professionals. A superior audio teaching environment includes a professional recording studio, and state-of-the-art facilities on the JCCC campus.

The certificate program encompasses a two-year sequence with 800+ contact hours of required work in recording and music. Curriculum is designed to prepare you for jobs in the field of commercial music, particularly in the areas of audio recording, computerized music systems, sound reinforcement, audio and video production. After completing the program, you will be prepared for audio work in recording and/or video studios, radio/TV stations, corporate audio/video departments, and sound reinforcement/recording for theater, conventions, music concerts, and other live performance situations.

Semester 1

XRE 1008 Introduction to the Recording Studio................128*
MUS 156 MIDI Music Composition.......................................3
MUS 221 Piano Class I.....................................................2
MUS 121 Introduction to Music Listening..............................3
or
MUS 125 Introduction to Jazz Listening...............................3

Semester 2

XRE 1003 Recording Studio Skills II....................128*
XRE 1001 Chamber Recording Ensemble I....................32*
MUS 222 Piano Class II..............................................2
MUS 121 Introduction to Music Listening............................3
or
MUS 125 Introduction to Jazz Listening...............................3
Summer
XRE 1005 Chamber Recording Ensemble II...................32*

Semester 3
XRE 1002 Advanced Recording Engineering....................160*
XRE 1006 Chamber Recording Ensemble III...................32*
XRE 1004 Music Theory for Recording Engineers............64*
or
XRE 1010 The Studio Business.................................64*
MUS 161 Chamber Choir I....................................1
or
MUS 176 Jazz Band I.........................................1
or
MUS 191 Concert Band I....................................1
or
MUS 195 Vocal Jazz Ensemble I.............................1
or
MUS 211 Orchestra I........................................1
or
MUS 222 Piano Class II....................................2
or
MUS 226 Applied Guitar I (Class)...........................1
or
MUS 227 Applied Guitar II (Class)..........................1

Semester 4
XRE 1009 Advanced Recording Engineering II..............160*
XRE 1007 Chamber Recording Ensemble IV...................32*
XRE 1004 Music Theory for Recording Engineers............64*
or
XRE 1010 The Studio Business.................................64*
MUS 161 Chamber Choir I....................................1
or
MUS 176 Jazz Band I.........................................1
or
MUS 191 Concert Band I....................................1
or
MUS 195 Vocal Jazz Ensemble I.............................1
or
MUS 211 Orchestra I........................................1
or
MUS 222 Piano Class II....................................2
or
MUS 226 Applied Guitar I (Class)...........................1
or
MUS 227 Applied Guitar II (Class)..........................1

Summer
XRE 1011 Capstone Course: recording Portfolio Review......32*

* Contact hours
Total Contact Hours...........................................864
Total Credit Hours............................................15

Complementary and Alternative Medicine, Certificate in
The certificate in complementary and alternative medicine is designed to provide a multidisciplinary educational experience. Those wishing to become knowledgeable, skilled and committed health care professionals in the field of complementary and alternative medicine should achieve certification.
The program requires 27 contact hours.

Students must register with JCCC and then complete the online orientation at www.ed2go.com/jccc.

ALLEGRA Learning Solutions, LLC, is accredited as a provider of continuing education in nursing by the American Nurses Credentialing Center’s Commission on Accreditation.

The program meets the qualifications for the stated hours of continuing education credit for MFTs and/or LCSWs as required by the California Board of Behavioral Sciences.

The program is provider approved by the California Board of Registered Nursing, Provider #CEP12385, for the stated number of contact hours.

The certificate program must be completed within six weeks of the start date.

Required Courses:

XNH 1650 Certificate in Complementary and Alternative Medicine

End of Life Care, Certificate

The U.S. population is aging at a rapid rate, and the number of individuals, young and old, who are living with debilitating, chronic or terminal illnesses, is also increasing. The demand for knowledgeable providers to meet the needs of this population is dramatically increasing, new jobs are being developed, and new services created. If you are a health professional who works with this population, this program will provide you with continuing professional education to help you gain a broad understanding of this special area of care and stay current with emerging trends. 26 contact hours

Note: Students must register with JCCC then complete the online orientation at www.ed2go.com/jccc. This program is accredited through ALLEGRA Learning Solutions, LLC, and accredited provider of continuing education in nursing by the American Nurses Credentialing Center’s Commission on Accreditation.

Required Courses:

XNH 1770 Certificate in End of Life Care

Excel Specialist Certificate

Receive instruction in our complete lineup of Excel classes. Build a solid foundation with Excel Fundamentals and Excel Intermediate before moving on to more advanced topics in Excel Advanced and Excel Customization and Data Analysis. Once completed, either take the MOS exam at participating Prometric testing centers or use your Center for Business Excel Specialist Certificate to verify your competency. 28 classroom hours.

See individual classes for detailed descriptions and outlines.

Required Courses:

XCM 3405 Excel Fundamentals
XCM 3406 Excel Intermediate
XCM 3407 Excel Advanced

Gerontology, Certificate in

Offered completely online, the certificate in gerontology represents a specialization in the field of gerontology. Divided into individual courses, the
program provides 26 hours of instruction designed to enhance the knowledge and skills of individuals who work with adults by providing an educational experience that is multidisciplinary in nature.

- Students must register with JCCC and then complete the online orientation at www.ed2go.com/jccc.
- The program is accredited through ALLEGRA Learning Solutions, LLC, an accredited provider of continuing education in nursing by the American Nurses Credentialing Center’s Commission on Accreditation.
- This program also meets the qualifications for the stated hours of continuing education credit for MFTs and/or LCSWs as required by the California Board of Behavioral Sciences.
- The program is provider approved by the California Board of Registered Nursing, Provider #CEP 12385, for the stated number of contact hours.
- The certificate program must be completed within six weeks of the start date.

**The four core courses:**
- Introduction to Gerontology
- Physiology of Aging
- Mental Health and Aging
- Healthy Aging

**Elective Courses (complete any four):**
- Spirituality and Aging
- Pain Assessment and Management in the Older Adult
- Death and Dying
- Sleep and Aging
- The Older Woman
- Elder Abuse

**Required Courses:**

XNH 1560  Certificate in Gerontology

**Intensive English Program**

Since 1997, the IEP has served English language (ESL) learners who want to improve and strengthen their English proficiency and cultural understanding for academic, career-enhancing, or personal reasons.

Curriculum and activities include:

- Beginning, intermediate and advanced-level oral communication, pronunciation, reading, writing, structure and vocabulary skills courses.
- A minimum of 18 hours of instruction a week for full-time students during the fall and spring.

**XGI 1110 Oral Communication 1110**

XGI 1120  Oral Communication 1120
XGI 1130  Oral Communication 1130
XGI 1140  Oral Communication 1140
XGI 1112  Pronunciation 1112
XGI 1122  Pronunciation 1122
XGI 1132  Pronunciation 1132
XGI 1142  Pronunciation 1142
Macromedia Web Design, Certificate in


Required Courses:

XCM 9540  HTML and Web Page Design
XCM 9525  Cascading Style Sheets
XCM 9463  Dreamweaver: Designing and Developing Websites
XCM 4152  Fireworks: Web graphics and Interactivity
XCM 9470  Flash Fundamentals
XCM 9477  Flash, Interactive Movies
XCM 9469  Dreamweaver: Database Connections
XCM 9478  Flash: Advanced Techniques

Medical Coding Certification

Medical coding certification is

- designed for medical office professionals.
- a 16-week program offered each fall and spring.

Individuals who complete the course may choose to apply to sit for the national certification examination offered by the American Academy of Professional Coders. The exam application is made individually. Course completion does not guarantee you will pass the examination.

This comprehensive course is based on the Professional Medical Coding Student Workbook with information on medical terminology, anatomy and coding issues related to CPT and ICD-9-CM coding. Copies of the current CPT, ICD-9-CM and HCPCS are the required textbooks.

Required Courses:

Prerequisite Courses (must take one or have equivalent):

XNH 1550  Medical Terminology
XNC 2413  Demystifying Medical Terminology

Additional Required Course:
Microsoft Certified Desktop Support Technician
Combine both parts of the MCDST certification into one affordable price. If you are looking to gain entry into the IT arena, this is the perfect follow-up to your A+ Certification. Exam vouchers included. Prerequisite: A+ Certification, detailed knowledge of the MS Office application suite, MOS Certification highly recommended.
See individual classes for detailed descriptions and outlines.

Required Courses
XCM 8372  MS Certified Desktop Support: Windows OS
XCM 8373  MC70-272 Certified Desktop Support: Applications

Microsoft Certified Systems Administrator
Combine 70-290: Managing and Maintaining a Microsoft Windows Server 2003 Environment, 70-291: Implementing, Managing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure, 70-270: Installing, Configuring, and Administering Microsoft Windows XP Professional, and our Security+ Certification Series class at one low cost. One week a month for four months to your MCSA. Prerequisite: A+ Certification, Network+ Certification, or equivalent knowledge.
See individual classes for detailed descriptions and outlines.

Required Courses
XCM 8291  Security + Certification Series
XCM 8315  Install, Configure & Administer Win XP Professional
XCM 8395  Manage & Maintain Win Server 2003 Environment
XCM 8375  Implement, Manage & Maintain Win Network Server

Microsoft Certified Technical Specialist: SQL 2005
Combine our Implementing and Maintaining SQL Server 2005 classes as you work toward one of Microsoft's newest certifications: 70-431 MCTS: SQL Server 2005 Implementation and Maintenance. Prerequisite: Knowledge of relational databases and database design.
See individual classes for detailed descriptions and outlines.

Required Courses
XCM 8832  SQL: Implementing SQL Server 2005
XCM 8833  SQL: Maintaining SQL Server 2005
XCM 8291  Security + Certification Series

Network+, Certificate in
Start with instructor led training in our Networking Fundamentals class, continue your education with two security classes: Security Audits, Attacks and Threats, and Security Networks and Firewalls. In addition to the classroom instruction, receive all the materials supplied in our Network+ Test Prep class for complete...
Network+ exam preparation. Mapped toward CompTIA's Network+ exam, this series will help prepare you for the industry recognized Network+ certification. The exam voucher alone has a $199 value. 56 contact hours.

Prerequisites: A+ Hardware, A+ Operating Systems, or previous experience with computer hardware and networks.

See individual classes for detailed descriptions and outlines.

**Required Courses:**

XCM 8305  Networking Fundamentals

---

**Oracle DBA Associate, Certificate in**

Receive the Oracle PL/SQL Fundamentals and Advanced courses with the Oracle DBA I Fundamentals and Advanced courses at a significant discount. For the student who wants a complete package of Oracle Database instruction. 56 classroom hours.

See individual classes for detailed descriptions and outlines.

**Required Courses**

XCM 8501  Oracle PL/SQL Fundamentals
XCM 8502  Oracle PL/SQL Advanced
XCM 8512  Oracle DBA I Fundamentals
XCM 8514  Oracle DBA I Advanced

---

**Oracle DBA Professional, Certificate in**

Receive instruction in Oracle DBA II Fundamentals and Advanced, mapped toward Oracle exam #1Z0-032, and Oracle DBA Performance Tuning Fundamentals and Advanced, mapped toward Oracle exam #1Z0-033 at a significant discount. For the student looking to delve deeper into Oracle or seeking the Oracle DBA Professional certification. 56 classroom hours.

See individual classes for detailed descriptions and outlines.

**Required Courses**

XCM 8515  Oracle Performance Tuning Fundamentals
XCM 8516  Oracle Performance Tuning Advanced
XCM 8517  Oracle DBA II Fundamentals
XCM 8518  Oracle DBA II Advanced

---

**Powerpoint Specialist Certificate**

Receive instruction in our complete lineup of PowerPoint classes. Build a solid foundation with PowerPoint Fundamentals before moving on to more advanced topics in PowerPoint Advanced and PowerPoint with Producer. Once completed, either take the MOS exam at our Prometric testing center or use your Center for Business PowerPoint Certificate to verify your competency. Prerequisite: Proficiency with Windows, keyboard and mouse.

See individual classes for detailed descriptions and outlines.

**Required Courses**

XCM 5505  Powerpoint Fundamentals
XCM 5510  Powerpoint Advanced
XCM 5507  Powerpoint with Producer
Project Management Certificate

The Center's Project Management Certificate program can help you generate real results and provide the most reliable and respected path to maintaining an understanding about that ever-shifting professional landscape.

Required Courses:

- XCM 8927 Project Management Essentials
- XCM 8928 Estimating and Managing Project Costs
- XCM 8931 Effective Project Scheduling and Control
- XCM 8929 Project Risk Management
- XCM 8934 Project Quality Management
- XCM 8933 Project Leadership and Team Motivation
- XCM 8935 Project Management Workshop

Electives:

- XCM 8932 Effective Communication for Project Managers
- XCM 8937 Performance Management
- XCM 8938 Software Testing

Security+ Certificate

Combine our Security+ class with our Security+ Test Prep CD in a package which will prepare you for CompTIA's Security+ certification. We will include an exam voucher, a $207 value, to make this an even greater deal. Prerequisite: A+ certification, Network+ certification or equivalent knowledge.

See individual classes for detailed descriptions and outlines.

Required Courses:

- XCM 8291 Security+ Certification Series

Spirituality, Health, Healing

The certificate in spirituality, health and healing presents a broad understanding of spirituality, health and healing. Health care professionals will stay current with emerging trends.

- The program requires 21 contact hours.
- Students must register with JCCC and then complete the online orientation at www.ed2go.com/jccc.
- ALLEGRA Learning Solutions, LLC, is accredited as a provider of continuing education in nursing by the American Nurses Credentialing Center's Commission on Accreditation.
- This course meets the qualifications for the stated hours of continuing education credit for MFTs and/or LCSWs as required by the California Board of Behavioral Sciences.
- The program is provider approved by the California Board of Registered Nursing, Provider #CEP 12385, for the stated number of contact hours.
- The certificate program must be completed within six weeks of the start date.

Required Courses:

- XNH 1645 Certificate in Spirituality, Health and Healing
Therapeutic Massage Certificate

The Therapeutic Massage Certification Program offers quality instruction and clinical experiences to prepare students to become skilled and ethical massage practitioners.

This program was developed to meet the 500-hour Massage Therapist II licensure requirement set by the City of Overland Park, Kansas ordinances. It is administered through the Center for Business and Technology, a division of the Continuing Education/Community Services branch of Johnson County Community College.

Clinics and most classes are held at West Park Center, one of JCCC’s satellite locations, at 9780 West 87th Street (87th and Farley) in Overland Park, Kansas.

Required Courses:

Prerequisite Course:

BIOL 144 Anatomy and Physiology

Courses:

XNM 5000 Introduction to Bodywork (Module I)
XNM 5010 Kinesiology
XNM 5050 Pathology
XNM 5021 First Aid/CPR
XNM 5075 Professional Business Practices I
XNM 5030 Communicable Diseases
XNM 5040 Clinical Bodywork (Module II)
XNM 5060 Hydroptherapy
XNM 5091 Bodywork Clinics I
XNM 5070 Clinical Bodywork (Module II)
XNM 5080 Professional Business Practices II
XNM 5092 Bodywork Clinics II

Continuing Education Course Descriptions

- A -

ABE/GED (XGE)
Academic Achievement Center (XGH)
Administrative Skills (XBF)
Arts and Crafts (XPA)
Aviation (XPV)

- B -

Business Skills (XBD)

- C -

CBT Special Events (XBA)
Career Planning (XVR)
Computer Training (XCM)
Cosmetology Training (XNCO)

- D -
Dance and Exercise (XYD)

- E -
EMT Training (XNT)
ESL Adv. and Prof. Courses (XGF)
Education (XNE)

- F -
Fire Science (XNF)
Food and Wine (XPE)
Foreign Language (XPL)

- H -
Health Care Professions (XNC)
Health Prof Independent Study (XNH)
Health and Lifestyles (XPG)
Home Ownership (XPK)
House and Garden (XPI)

- I -
Insurance (XNI)
Intensive English (XGI)

- L -
Law Enforcement (XNP)
Leadership (XBZ)
Legal Education and Mediation (XNL)
Lifetime Learning (XLN)
Literature and Writing (XKL)

- M -
Management Development (XDM)
Massage Therapy (XNM)
Money Management (XPM)
Music, Gemology (XKA)

- P -
Personal Development (XKD)
Photography (XKP)
Practical Know-how (XPR)
Professional Education (XNX)
Public Events (XKE)

- R -
Railroad Training (XBR)
ABE/GED (XGE)

XGE 1100
Orientation to Literacy Volunteering
If you're interested in working as a literacy volunteer or as a General Educational Development (GED) or English as a Second Language tutor in the Project Finish Program, this orientation session is for you. Handout material will be provided. No fee. (1 session)

XGE 5001
GED Test Preparation
This online course will help refine your reading and thinking skills necessary to be successful in five areas tested on the GED exam: Language Arts/Reading, Language Arts/Writing, Social Studies, Science, and Mathematics. After completion of this course, you should be well-equipped to pass the GED practice test followed by the GED examination.

XGE 5002
GED Language Arts and Writing Test Preparation
This in-depth online course will give you the skills and knowledge you need to successfully prepare for the GED Language Arts, Writing test. Learn the basics of usage and mechanics so you can edit the passages on the multiple-choice part of the exam. Then, you'll learn a step-by-step approach to writing that will give you the confidence you need to write a winning GED essay!

XGE 5003
GED Math Test Preparation
This online course will help you master the skills required to successfully pass Test 5 in the GED test series. Give yourself the strong foundation you'll need to solve the types of math problems commonly found on the test. Gain comfort with your math skills, and be able to recognize how, when and why to apply each math
Academic Achievement Center (XGH)

XGH 1100

Study Skills
Spelling, reading, study skills, math and preparatory chemistry are among the areas of study offered in the center. Students who enroll in the center are given a diagnostic pre-test that places them at the appropriate level in their individualized program. Students progress at their own rate to meet their goals. Instructors are available for assistance. Free tutoring in specified areas is available. For more information, call 469-8500, ext. 3320. Center hours: 8 a.m.-8 p.m., M-R 8 a.m.-2 p.m., F 9 a.m.-1 p.m., Sa

$63.00

XGH 1103

Advanced Spelling
A description is not available for this course.

$63.00

XGH 1104

Reading Comprehension
(B&G $30)

$63.00

XGH 1105

Reading Rate
(B&G $30)

$63.00

XGH 1106

Vocabulary Development
(B&G $30)

$63.00

XGH 1112

Basic Math Review
(B&G $30)

$63.00

XGH 1113

Algebra Preparation
(B&G $30)

$63.00

XGH 1114

Chemistry Preparation
(B&G $30)
Administrative Skills (XBF)

XBF 0305
Customer Service Phone Skills
Your telephone skills can often make or break your personal or company image. In this seminar, you'll expand your awareness of telephone customer service and techniques for dealing with customers, situations and telephone stress. You'll learn to develop an awareness of a customer's perception and recognize the role quality customer service plays in the success of your company.

Arts and Crafts (XPA)

XPA 1003
Adventures in Color
Learn to improve your color choices by using the color wheel. Anyone who wishes to improve their color knowledge for artwork, design, fashion, decorating and more will benefit. In sessions one and two, we will examine color usage with a series of painting exercises. We will learn about harmonious color groups, values and color mixing. During the third session we will create beautiful handmade hard cover accordion-fold reference books into which we will compile our color studies. No prior painting or drawing skills are needed. Supply list will be mailed before class.

XPA 1004
Precious Metal Clay Pendant
Precious Metal Clay Pendant is silver in a clay-like form. Learn how to shape, form and fire it while making a personalized three-layer silver pendant. After finishing the piece, you will leave the class with a completed fine silver necklace. Class kit and all supplies: $40.00, available from instructor.

XPA 1006
Soldered Glass Charms
Soldered Glass charms are the latest trend in jewelry making. In this class you will create several two-sided glass charms that can be hung on a bracelet or necklace. Students can bring their own art images/photos reduced down to 1 inch square or use the instructor's images. Class kit is $15.00, available from instructor.

XPA 1007
Stained Glass, Intermediate
Add to your stained glass skills, with stained glass lead construction. Students will complete an 18” x 24” project. Patterns and glass should be selected by the first class. Material fees of $75 will cover materials provided by the instructor.
Prerequisite: Beginning Stained Glass.

$45.00
XPA 1008

**Soldered Glass Shrine Necklace**

Students will construct and create a mini glass box shrine diorama to showcase a small treasure or charm. Students will use collage and ageing techniques to make their shrine look vintage. Students will leave with a completed project. Students should bring favorite scrapbook papers and or collage materials to be used in the shrine construction. Students should also bring trinkets, charms, flea market jewelry to be the centerpiece of their shrine and a length of chain. Class kit fee: $20 to be purchased from the instructor.

$16.00
XPA 1009

**Snowman Coasters**

This is an adorable project to paint and a great gift for a snowman collector. Four ceramic tile coasters and acrylic paints furnished by the instructor. Bring a #3/0 liner brush #2 flat brush and a stencil brush to class.

$25.00
XPA 1010

**Hand Woven Baskets by Robbie**

Robbie Wisdom is a real pro, she shows her baskets at all of the regional arts and crafts fairs. She’ll show you how to weave a very useful utility, 5 X 8 1/2 basket. This project can be completed in one class session and will start you on a new craft path. Bring $17 to class for basket supplies.

$20.00
XPA 1011

**Market Basket**

Robbie Wisdom is a real pro, she shows her baskets at all of the regional arts and crafts fairs. Join Robbie and learn how to weave a classic 10x14” market basket. In this wonderful design, you’ll have the option of adding color. You’ll finish your market basket in one class meeting. This class lasts 5 hours, bring a sandwich for the break. Bring $35 to class for market basket supplies.

$25.00
XPA 1012

**Hearth Basket**

Make an 8" x 14" hearth basket with color, including braided border inside and out. Various sizes of reed will be used. Supplies, $38, available from instructor. Bring a sandwich for the lunch break.

$25.00
XPA 1013

**Basket Tote with Leather Handle**

Create a basket tote, 12" x 11." You can add color and use five sizes of reed. Supplies, $38, available from instructor. Bring a sandwich for the lunch break.

$25.00
XPA 1014

**Acrylic Techniques**
Learn the various techniques that acrylic reveals to the painter. We will discuss the similarities and differences in styles and compare this medium with oil, watercolor and pastel media. Bring to class small tubes of acrylic paint in Cadmium Red, Cadmium Yellow, Ultramarine Blue, Hooker Green and a large tube of white. One stretched canvas tablet, synthetic brushes: 3/4" flat, #8 round and #3 round; pallet knife and pallet, (large styrofoam picnic plate) water container and rags or tissues.

$79.00  
XPA 1016  
Knitting, Beginning  
Learn to knit in a 4 session class. You will start off by making a pot holder, then move on to making a scarf, as well as checking guage and correcting mistakes. Bring to first class: size US 8 - 10 1/2 knitting needles and worsted weight wool (at least 100 yards), approximate cost $15.00. Class limited to 12 students.

$25.00  
XPA 1017  
Stained Glass, Beginning  
Learn the basic techniques of stained glass: cutting, soldering and pattern-making for the copper foil method. Project design and construction will also be discussed. Students will complete a 10"x15" decorative stained glass panel. Material fees of $55 will cover material provided by the instructor.

$45.00  
XPA 1018  
Felted Purses  
Make a simple but stylish felted purse by felting (boiling) your knitting to make any mistake vanish! Students can choose from 3 styles ranging from beginning to advanced. Must know how to cast on and knit. Bring to class US 10 1/2 24" circular knitting needle and 3 skeins of wool, approximate cost $30.00. Class limited to 12 students.

$25.00  
XPA 1019  
Retablo Painting  
Students will examine the form and function of Hispanic Retablos (devotional paintings on metal or wood that pay tribute to a prayer or wish that's been answered). You will then create your own unique individual Retablo. For experienced painters. Bring to class various acrylic paints in colors you would prefer to work with, various brushes, cloth and pencil/paper.

$19.00  
XPA 1020  
Start Your Family Photo Album I  
This course is designed for those who have unorganized photos. You will get tips on how to organize them in a time-efficient, systematic manner using tools that are reusable for all your album needs. You may bring up to 700 photos and memorabilia to organize and prepare for your page layouts. Supplies cost approximately $10 and are available from the instructor.

$12.00  
XPA 1021  
Start Your Family Photo Album II  
This follow up class to Start Your Family Photo Album I will help you begin the
process of laying out your album pages. Do you have boxes of pictures that you want to get into an album ... someday? Are you too busy to do more than a page or two in your album at a time? Many boxes of photos can be overwhelming, but you can complete your albums using the Power Layout method. This method will save you time by helping you organize each page in advance, allowing you to store them neatly, until you can mount and journal your pages later. Supplies cost approximately $25 and are available from the instructor.

$12.00
XPA 1022
Contemporary Painting Techniques
Use time tested painting techniques including wet into wet, palette knife, glazing, and under painting, using contemporary materials, water soluble oil paints or acrylic paints. Compositional sketches and value oriented thumbnail sketches are emphasized along with the hands-on painting. Using your choice of subject and techniques you will complete a 16 x 20 inch original work. For beginning to intermediate students. A supply list will be distributed before the first class.

$79.00
XPA 1024
Drawing, Beginning to Intermediate
Explore using basic shapes, shading, perspective and measuring methods while using various techniques, tools and mediums. A supply list will be mailed before the first class. Supply costs, approximately $25-$30.

$89.00
XPA 1027
Handstamped Cards - Level I
Rubber stamping is a fun way to create greeting cards. Make 10 different cards and learn exciting techniques like using shaving cream and baby wipes to create incredible cards. Cards cost $1.00 per card and are available from the instructor.

$18.00
XPA 1028
Handstamped Gift Workshop
Need a gift for a teacher, coach, boss, or friend? Hand stamp 10 small gifts including a candle, a checkbook cover, a CD cover and a gift card holder. Get great ideas for those people on your gift list. Supplies available from instructor for $20.

$15.00
XPA 1029
Handstamped Occasional Card Workshop
Rubber stamp your own cards using the latest innovation in stamping-acrylic stamps. Use see-through clear stamps and blocks for accurate placement as you create thank-you cards, thinking-of-you cards and more. Learn new techniques and decorate with the latest embellishments. Supplies are available from the instructor for $10.

$12.00
XPA 1030
Opaque Painting Beginning
Learn different methods of painting (toned grounds, value painting, base colors, wet-in-wet and textural grounds. Course will include choosing paints, brushes, supports, and equipment. Each week should result in a small sample painting or
A supply list will be mailed before first class meeting. Supplies approximately $80 - $120.

$89.00
XPA 1031
Red Hat Coasters
Get together with your Red Hat sisters and paint flouncy red hats with purple flowers on coasters. Four ceramic tile coasters and acrylic paints furnished by the instructor. Bring a #3/0 liner brush, #2 flat brush and a stencil brush to class.

$25.00
XPA 1032
Portrait Art
Explore all aspects of portraiture as you study form, lighting forms and how the human head is comprised of forms. Work from live models for six of the eight sessions. You will use both drawing materials and colored pastels. Bring to first class compressed, soft charcoal sticks; a set of soft pastels (about 24 colors, white drawing tablet, one kneaded and on pencil eraser; soft lead pencils HB-6B; soft charcoal pencils. Supplies approximately $40.

$79.00
XPA 1033
Learn to Purl
Begin the next level of your knitting: learn to purl stitch! We will focus on stitch patterns and dive deeper into the structure of your new skill. You must know how to knit. Bring to first class: size US 8-10 1/2" knitting needles and at least 100 yards of worsted weight wool (approximate cost $15). Class limited to 12 students.

$29.00
XPA 1034
Sweater Workshop
Move beyond scarves and purses in this advanced beginner’s garment workshop. Learn simple applications of knitted structures and have 2 handmade sweaters ready for cold weather! Must know how to knit and purl.

$39.00
XPA 1036
Holiday Card Workshop
Rubber stamp you own holiday cards using the latest innovation - acrylic stamps. See through clear blocks for accurate placement. Use 5+ different techniques on these 10 cards. Decorate with a variety of embellishments such as eyelets, ribbon, and brads. Cards, $1.00, available from instructor.

$15.00
XPA 1037
Hand Stamped Event Calendar
Create a holiday gift anyone would love in this perpetual calendar. Hand stamp each month using acrylic stamps and color coordinated paper. List birthdays, anniversaries and other dates which remain the same each year. Calendar, $15.00, available from instructor.

$19.00
XPA 1038
Art of Pastel
Some of the most lively and fresh works of the French Impressionists were painted with pastel. Contemporary artists enjoy pastel because of its unique qualities of line, color and texture. This class will familiarize you with soft pastel, a variety of techniques and painting surfaces with a "hands on" approach. Bring to class 24 soft pastels, sketchbook, charcoal or pencils, plastic eraser, pastel paper tones of grey, photos to work from (optional), table easel, approx cost $40-$60. Having had beginning drawing and painting would be helpful.

$49.00
XPA 1053

Holiday Scrapbook Pages
Create four winter holiday 12” x 12” pages using the latest embellishments and techniques. Get ready for your holiday pictures with these beautiful scrapbook layouts. Bring to class a paper cutter and scissors, you do not need to bring pictures. Supplies cost $10 and are available from the instructor.

$15.00
XPA 1054

Handstamped Mini Scrapbook
Create a unique 6” x 6” album with 10 coordinating pages. With a single sheet of random stamped cardstock and 3 12” x 12” sheeis of paper, you will make an adorable mini scrapbook. Use it for a special occasions like a baby shower, graduation, wedding or anything you would like to brag about! Supplies cost $15 and are available from the instructor.

$12.00
XPA 1056

Creative Cloth I
An information-filled demonstration series for anyone who quilts, sews, designs or just enjoys working with cloth and wants to take their creativity to a higher level! You will take a close look at how contemporary textile artists use innovative techniques to create original cloth. Observe and interact with the teacher as she completes hands-on demonstrations of cloth design techniques. Informative handouts detailing the process and materials and will examine cloth printing, painting and hand-dyeing techniques will be available.

$29.00
XPA 1057

Creative Cloth II
This class is a continuation of Creative Cloth I. Also, examine silk screening on cloth, collage process and fusing, and free form machine quilting techniques. Note: Creative Cloth I is not a prerequisite.

$29.00
XPA 1060

Metal Casting
Learn about the lost wax bronze-casting process. On the first day, work in wax to create your sculpture; on the second, we prepare it for casting; and the third day, we prepare the bronze. Wear non-flammable clothing, close-toed shoes, and prepare to get dirty. No prior experience necessary. Students must purchase the bronze for their project.

$99.00
XPA 1061
Jewelry Enameling, Introduction to
This class will introduce you to the basic tools, materials, and techniques of enameling in jewelry form. The types of enameling covered will be basic enameling, cloisonne and, time permitting, champleve. The piece that you create can either be a brooch, pin or pendant. No previous experience is necessary. A supplies list will be sent to you before the first session. (Supplies will cost approximately $60).

$90.00
XPA 1062

Sculptural Welding Workshop
Design an art piece by welding and cutting steel using electric and gas-welding equipment. We will also use a metal bender, sheer, grinders, saws, drills, and the forge. Wear shoes that cover your feet and wear clothes that you don’t mind getting dirty. No prior experience necessary.

$110.00
XPA 1065

Advanced Sculpture Workshop
If you’ve taken one of Graham Lane’s other classes and need to put final touches on a project or want to see what others have learned so you can pick up some ideas, then this is the class for you. Bring a project to class. The instructor will be doing quick demonstrations to help those that need brushing up. Wear appropriate clothing.

$99.00
XPA 1067

Jewelry Casting, Introduction to
In this hands-on class, you will design a piece of jewelry using the tools, materials and techniques of cuttlefish bone casting and lost wax investment casting. The jewelry you make can be a brooch, pendant, pin or bracelet. No previous experience is necessary. A supplies list will be sent to you in advance of the first session. (Supplies will cost approximately $50.)

$95.00
XPA 1077

Summer Sweater Workshop
Get ready for summer with short sleeves and tank tops! Choose two patterns to complete in the class for the warmer weather. Learn more knitting techniques and basic crochet. Prerequisite: must know how to knit and purl.

$39.00
XPA 1080

Calligraphy, Beginning
Have fun learning the chancery cursive alphabet (italics) in this course. These skills may be used for personalized gifts, invitations, cards, envelopes, weddings, etc. Bring a medium point calligraphy pen or purchase one at the first class. Practice sheets and paper will be provided.

$39.00
XPA 1081

Calligraphy, Intermediate
Improve your basic italic script penmanship and experiment with various pens and size writing. Practice centering techniques and envelopes and produce a project of your choice. Prerequisite: Beginning Calligraphy.
Calligraphy, Intermediate II (Expressive Calligraphy)
You will learn varieties of calligraphy that are casual, contemporary, spontaneous and ideally suited for handmade books and other personalized projects. Supplies will cost approximately $15 to $20. Bring calligraphy pens, paper, a notebook and pencil to the first class. (B&G $35)

Frescoes For Your Home
"Frescoes" are created with fresh pigments, fresh water and fresh plaster. This course will explore Pompeii "Frescoes" story telling themes, the lost language of symbolism, earth pigments, painting techniques and the creation of an authentic fresco. No experience necessary! You will create a one-pound fresco using ancient methods and techniques. Students will be expected to purchase $25 fresco paint set from the instructor. Bring your lunch.

Drawing, Beginning
This is a drawing class for beginners (or others) using the classical method to learn to draw realistically (similar to Drawing on the Right side of the Brain). Bring 6B or 8B lead pencils, soft charcoal pencils, kneaded eraser, a white pastel and "11 X 14" drawing pad.

Beginning Landscape Drawing
For beginning to intermediate artists wanting to learn how to approach landscape drawing. We will work on choosing the motif, linear and aerial perspective and other related aspects of drawing. Colored pencils, pastels or monochrome media (such as charcoal, ink or pencil) may be used.

Landscape Drawing in Color, Beginning
Learn about color landscape drawing by studying the basic principles of drawing; how to choose and edit a subject; artistic perspective; composition; and color. The class will work outdoors part of the time, as weather permits. Bring a sketchbook (approximately 11” x 17”) of white paper, black lead pencils, colored pencils and kneaded eraser. Other optional supplies will be discussed at the first session. Note: this class is for beginners as well as those with drawing experience.

Landscape Painting in Pastels, Beginning
Learn to paint from life ("en plein aire") as well as outdoors, and learn to choose and Edit your subject; how to use pastels; about pastel paintings supplies; how color works with pastels; and how to work simultaneously on drawing along with painting. The Class will work outdoors part of the time, as weather permits. Bring a sketchbook (approximately 11” x 17”) of white paper and a set of soft pastels (about 15-20 colors). Other optional supplies will be discussed at the first session. Note: this class is for Beginners as well as those with drawing experience.
$55.00

XPA 1112

Botanical Art - The Still-Life: Fruit & Flower
Learn how to draw and paint using the genre of still-life. This special weeklong workshop will focus on the realistic portrayal of fruits and flowers, subjects typically found in a still-life setting. The workshop teaches the principles of accurate observation of line and color, graceful brushstroke, confident color mixing. Beginners learn observation skills necessary to draw and paint accurately; advanced artists have the opportunity to extend their range. $10 fee due to the instructor for natural plant materials and use of art supplies.

$69.00

XPA 1120

Drawing on the Right Side of the Brain
Explore your creativity! If you would like to draw but haven't developed your skills or feel you have no talent, this is the class for you. Based on Drawing on the Right Side of the Brain by Betty Edwards, this class requires no art experience. Bring a 14" by 17" sketch pad and 4B drawing pencils to the first class. Additional supplies will be discussed at the first session. Supplies will cost approximately $40.

$69.00

XPA 1130

Watercolor
Express your creativity and gain valuable technical knowledge through learning the art of watercolor. Using photographs or paintings by recognized artists, you will explore subjects such as floral arrangement, texture (using ordinary household and garden items), landscape and portraiture. Bring only a pen and notebook to the first class, which will meet from 6:30-8:30 p.m. A list of supplies (approximately $70 to $100) will be provided at that time.

$66.00

XPA 1145

Stone Carving Workshop
In this two-session introduction to stone carving, you will learn to chip, tear and shear stone. Each student in the class will receive a piece of limestone from a local quarry. Traditional and contemporary carving methods, as well as the history of stone carving, will be addressed and applied to the work at hand. This workshop is open to everyone; prior experience is not necessary. Wear shoes that cover your feet and clothes that you don't mind getting dirty. There will be a one-hour break for lunch (on your own).

$99.00

XPA 1162

Painting on Silk
Learn to paint silk fabric and scarves with Fiber artist Valerie Doran Bashaw. We will work with luminous French dyes and explore pattern, design, drawing and color. Beginners are welcome to explore this unusual art form. Bring to class 2 fine point watercolor brushes, one large, one small, four 26" wooden canvas stretcher bars, plastic palette, cup for water, pencil, black marker-fine point, stainless steel pins with heads, masking tape, thin latex gloves, paint shirt, small sketchbook approximate cost $25. Fee includes cost of two silk scarves, dye and resist.

$89.00

XPA 1172
Santa Workshop
Learn the art of painting resin Santas for gifts or your own collection. The Santa, as well as acrylic paints, will be furnished by the instructor. Bring to class a #3/0 liner brush, #2 flat brush, paper towels, Krylon Spray Varnish Matte Finish and disposable gloves (available at craft stores for approximate total cost of $10).

$19.00
XPA 1173

Herbal Wreaths and Swags
Using fragrant herbs and flowers on different bases, in this workshop you will make a wreath or swag of your choice. Materials will be available, including decorative holiday items; in addition, please bring a glue, gun, scissors, ribbon and twine.

$25.00
XPA 1185

Floral Arrangements
Custom-design silk and dried floral arrangements for your home. A wide variety of materials will be studied. You may complete two projects from the following styles: traditional, contemporary, country or Southwest. Students will need a glue gun and wire cutters. Additional supplies will cost $30 to $60 and will be discussed at the first session.

$36.00
XPA 1186

Floral Arrangements, Advanced
This class is a continuation of "Floral Arrangements". Become more proficient in floral design, and better understand the principles and elements of design as you complete three projects: a centerpiece, tall floral and topiary arrangement. Bring your floral supplies to the first session, along with your glue gun and wire cutters. Note: supplies will cost $30-$60 per project. Prerequisite: Floral Arrangements or Wreaths and Swags

$36.00
XPA 1193

Butterfly Stepping Stone
This painted fluttering beauty looks as if it is resting in your garden waiting for a gentle breeze. The 12" stepping stone and patio paints will be furnished by the instructor. Bring an old toothbrush, 1/2" angular brush, #4 flat brush, #1 liner brush, ruler and pencil to class.

$29.00
XPA 1194

Ladybug Stepping Stone
These flying friends of the garden will bring a feeling of loveliness and delight to all that see them. The 12" stepping stone and patio paints will be furnished by the instructor. Bring an old toothbrush, 1/2" angular brush, #6 stencil brush, #4 flat brush, 5/0 liner brush, ruler and pencil to class.

$20.00
XPA 1195

Snowman Tray
Winter is definitely coming. Paint a snowman and all the things that go with him on a wooden tray. Snowman tray and acrylic paints furnished by the instructor. Bring a 3/4" angular brush and 5/0 liner brush to class.
$21.00
XPA 1196
Old World Santa Workshop
Celebrate the season by painting and antiquing your own Santa with the instructor who has painted over 1000 Santas. The resin old-world Santa and acrylic paints will be furnished by the instructor. Bring #3/0 liner B brush, #2 and #4 flat brush, and disposable gloves. (2 sessions)

$25.00
XPA 1197
Moon Santa Stepping Stone Workshop
Paint your own holiday gifts. Learn how to paint a wonderful Moon Santa on a 12" stepping stone for your yard or garden using patio paints. The stepping stone and patio paints will be furnished by the instructor (supplies included in fee). Bring an assortment of brushes to class.

$19.00
XPA 1198
Country Snowman Stepping Stone
Let the beauty of the outdoors inspire your next painting project. Paint a country snowman on a 12" stepping stone using patio paints. The stepping stone and patio paint will be furnished by the instructor. Bring an assortment of brushes to class.

$25.00
XPA 1199
Frog Stepping Stone
What a fun design for your yard or garden! This plump frog fills a 12" stepping stone with charm. The stepping stone and patio paints will be furnished by the instructor. Bring a stencil brush, a #2 round brush and a 1/2" regular brush to class.

$20.00
XPA 1205
Wreaths and Swags
Custom-design a wreath and swag for your home. A wide variety of materials will be studied. You may complete two projects from the following styles: traditional, contemporary, country, or Southwest. Students will need a glue gun and wire cutters. Additional supplies will cost $30 to $60 and will be discussed at the first session.

$36.00
XPA 1224
Bangles & Beads (Jewelry)
You'll be the envy of your friends when you wear the funky bangle bracelet and rings that you made in this class. The jewelry will be made from wire and beads. Class supplies cost $20 and may be purchased directly from the instructor.

$11.00
XPA 1225
Basic Beading Techniques (Jewelry)
Learn to design and make your own jewelry as gifts for yourself or someone special. You will make one bracelet with matching earrings. Materials include a
beading kit and basic bead-stringing reference book for making more unique gifts. Supplies for this class will cost $20 and may be purchased from the instructor.

$11.00
XPA 1227

Basic Wire Wrap Techniques (Jewelry)
Like the look of those stunning pendants hanging from gold or silver collars? Join this class and make your own pendant (collar not included) with a 40 x 30 mm gemstone cabochon. Supplies for class will cost $20 and may be purchased directly from the instructor.

$11.00
XPA 1229

Crystal Choker (Jewelry)
In this workshop, you will make an elegant crystal choker necklace with matching earrings. These make great gifts for yourself or friends. Supplies for this class will cost $20 and may be purchased directly from the instructor.

$11.00
XPA 1231

Intermediate Wire Wrap Techniques (Jewelry)
Like the look of those stunning pendants hanging from gold or silver collars? Join this class and make your own pendant using wire-wrap technique (collar not included) with a donut-shaped gemstone. Supplies for this class will cost $20 and may be purchased directly from the instructor.

$11.00
XPA 1236

Introduction to Fused Glass
Learn about different kinds of glass, tools, compatibility, cutting and finishing. You will complete one project by designing and fusing the piece in the kiln. This piece can be used as jewelry or as a sun-catcher. Bring $35 to class for your project materials, supplied by the instructor.

$19.00
XPA 1241

Faux Finishes I
Now you can learn how the professionals do it. Learn basic faux finishing techniques for those who are new to this style of painting. This is an introduction to the method of color selection, mixing of paint and glazes, and the various application processes. Supplies for this class ($25) may be purchased directly from the instructor.

$25.00
XPA 1242

Faux Finishes II
More materials will be added to create unique faux treatment such as, stripping, metallics and sponging. Note: Faux Finishes I is a prerequisite to this class or permission to enroll from the instructor. Supplies for this class ($25) may be purchased directly from the instructor.

$25.00
XPA 1247
Acrylic and Oil Painting
Explore traditional techniques for using oil paints established during the Renaissance, and now translated into the use of modern materials of acrylic and/or water soluble oil paints as well as the traditional oils. No toxic fumes will be found in the classroom. The student will use their own pictures and ideas in a supportive environment. Supply list will be mailed one week before the beginning class date.

$99.00
XPA 1250

Watercolor, Beginning
Learn the basic techniques of watercolor painting in this fun and relaxed beginner’s class. You’ll learn about color, composition, layout, perspective and more as you first draw, then paint your own still life and landscape projects from photographs. Supply list to be mailed to participants before the first class.

$99.00
XPA 1260

Watercolor, Intermediate
This class is for those who already have watercolor supplies and are ready to "loosen up" and enjoy a painting adventure. Tracings will be provided for those who wish to use them. More experienced students are encouraged to design their own "similar" drawings. Bring your supplies to the first class, which will meet for two hours. Note to those who have taken this class previously: each term contains new and interesting material!

$99.00
XPA 1270

Oil Painting I, Classical
This is a beginning class for students interested in Classical Realism. You will be introduced to the materials used in oil painting, and some of the techniques of using these materials. You will learn to prepare a canvass for painting, transfer a drawing to canvass, and to paint a picture of your choosing. Individual attention will be given for completion of your painting. Supplies will be discussed at the first meeting. This class is a prerequisite for Classical Oil Painting II.

$121.00
XPA 1271

Oil Painting II, Classical
This class is open to returning students and those who have previously taken Classical Oil Painting I. You’ll be encouraged to develop your own style using the skills and methods you acquired in the first course, and to develop new techniques.

$121.00
XPA 1275

Oil Painting III, Classical
Classical Oil Painting I and II are prerequisites for this class. Lectures will cover composition, color harmony, and art history. Demonstrations will include landscapes, still life and portraits. You will complete your own original paintings. Note: This class was formerly titled "Intermediate/ Advanced Oil Painting".

$121.00
XPA 1298

Jewelry Making, Beginning
Use a variety of tools, materials (silver, gold, copper), chemicals and stones to make a project of your choice such as a ring, pendant or bracelet. Bring your ideas to the first session and the instructor will discuss your project ideas with you. Then, choose your project, materials and tools. Additional material costs will be necessary but will vary depending on the project selected, i.e. silver, stones, etc. An optional kit costs approximately $180 includes tools and supplies, but not materials. Items may be purchased through the instructor but must be ordered and paid for at the first session.

$39.00

XPA 5001

**Drawing for the Beginner**

Have you always been interested in drawing, but never really knew how to get started? If so, then this is definitely the course for you! Gain a solid foundation and understanding of the basics to drawing and become the artist you've always dreamed you could be!

$82.00

**Aviation (XPV)**

**XPV 1000**

*Private Pilot Ground School*

Share the synergy of learning to fly with other student pilots as you prepare for the FAA private pilot computer exam. Experience colorful PowerPoint presentations on airplane systems, instruments, aerodynamics, weather, flight safety, air traffic control procedures, navigation and federal aviation regulations. Bring the textbook and flight planning materials (JCCC bookstore), to the first class. Note: Attendance is required for the first class and does not include an exam.

$179.00

**XPV 1010**

*Instrument Pilot Ground School*

Are low clouds keeping you on the ground? If so, then increase your freedom to fly by adding an Instrument rating to your private pilot certificate! While you prepare for the FAA Knowledge exam, dynamic PowerPoint visuals guide you through "real world" IFR operations -- from chart interpretation and ATC procedures to weather and physiological factors related to the IMC environment. Note: Class sessions do not run continuous in order to accommodate a weekend study break.

$189.00

**XPV 1035**

*Flight Review Refresher*

This course prepares the private pilot for the FAA required Flight Review needed in order to continue exercising Pilot-in-Command privileges. Refresh updated regulations, chart symbology, weather interpretation, airspace, communications phraseology, traffic pattern protocol and emergency procedures before you schedule your next flight review and breeze through it with confidence. This class satisfies the ground requirement for your next flight review. Note: An optional logbook endorsement is offered, fee to be paid on day of class; bring your logbooks.

$49.00

**XPV 1040**

*Partners of Pilots "Pinch Hitter" Course*

Would your spouse, child, parent or friend enjoy flying with you more if the cockpit...
and flight environment weren't so intimidating? Maybe he or she is concerned about their own safety and that of your family if during the flight something should happen to you? This "pinch hitter" course is designed to educate the nonpilot on essential information and make flying more enjoyable for both pilot and guests.

$49.00

Business Skills (XBD)

XBD 0103
Accounting Basics
You will learn the essential language, concepts and processes of accounting. This course is presented in a practical, hands-on, non-technical fashion.

$199.00
XBD 0104
Managerial Accounting
Today's manager should know accounting basics. In this seminar, you will acquire a better understanding of the concepts and objectives of managerial accounting and how to apply them daily on the job. This program includes fundamentals of accounting, how to interpret and analyze financial statements and management reports.

$179.00
XBD 0107
Better Business Writing
This course focuses on effective ways to organize and convey ideas to a variety of audiences, for a variety of purposes, through a variety of communication modes. You will learn easy and successful models to compose clear and concise e-mail messages, common letters, summaries, and meeting minutes. Please bring a working document to review. You will complete your day with revising and proofreading practice.

$159.00
XBD 0108
Grammar, Punctuation and Word Usage
You must know more than your computers grammar and spell check to project a professional image. During this course you will review effective sentences for grammar, readability and results. You will learn punctuation functions that simplify comma, semicolon, colon and apostrophe rules. Finally, you will resolve common confusion with misused words to make clear choices.

$159.00
XBD 0110
Legendary Customer Service
When you treat your customers like VIPs, they return to purchase your goods and use your services. In this seminar, you'll examine the link between the customer and your business and the importance of first impressions in customer relations.

$159.00
XBD 0114
Budgeting Fundamentals
There's no doubt -- budgeting is critical to bottom-line performance. This seminar covers the basics of budgeting in simple, nontechnical language. Topics begin with budget concepts and terms; move on to planning, building and implementing
a budget; and end with budgetary management and control.

$179.00
XBD 0122

Analyzing Financial Statements
Learn the accounting terms and concepts that will help you interpret a firm’s true financial performance by taking an in-depth look at what statements can tell you. You will cover the information required for accurate financial statements, what such statements reveal, and the ratios used in their analysis.

$159.00
XBD 0137

Behavioral Interviewing
The single-best predictor of future job performance is past job behavior in similar situations. You will go through the process of planning and conducting effective hiring interviews, evaluating candidates, and arriving at the right hiring decisions.

$159.00
XBD 0139

Human Resource Laws
In this session, participants will learn the basics of employment law, including Title VII of the Civil Rights Act, the Pregnancy Discrimination Act, the Age Discrimination in Employment Act, the Americans with Disabilities Act, the Immigration Reform and Control Act, the Family Medical Leave Act, Employment-At-Will and the Equal Pay Act.

$169.00
XBD 0140

Avoiding Workplace Violence
In this 4-hour session, you will learn to recognize the warning signs of possible violent behavior, gain a better understanding of anger escalation, learn how to prevent or defuse volatile situations or aggressive behavior, and learn how to confront problems before they escalate. In addition, you will learn when to intervene, how to recognize potential psychological problems, and how to correctly terminate threatening or violent employees.

$114.00
XBD 0141

E-mail Professionalism: What, How, To Whom and How Long?
This program will give you an overview of the background of electronic mail. The conventional manners and cultural expectations of netiquette will be discussed. The participants will be given suggested guidelines for writing professional messages.

$114.00
XBD 0142

Note Taking for Professionals
Have you ever been asked to take notes in a meeting or conference and the end result was a rough outline or jumbled messages on the back of an envelope? This program will teach you a variety of notetaking techniques for reading documents, interviewing, meetings, classes, telephone conversations, recordings, and adverse situations. Learn how to select the best blend of notetaking for your style and situation.

$109.00
XBD 0143

Report Writing to Inform and Persuade
We write reports for documenting events and incidents; describing accomplishments, obstacles, and goals; assessing problems and concerns; designing action plans; and evaluating performance. This hands-on workshop focuses on the process of effective report writing so that you can concentrate on the finished product when you get back to work. Learn what to write and how to write it so you get the results you and your readers want.

$149.00

XBD 0144

Problem Solving from Both Sides of the Brain
This course helps people learn how to solve problems from "both sides of their brains." You will first learn the steps in the logical problem solving process, as well as specific techniques for analyzing issues and problems. The program includes learning how to expand your thinking to consider creative alternatives, to view problems and possible solutions from new angles, and to combine creativity with the logic of implementation.

$159.00

XBD 0146

Decision Making for Team Leaders, Managers
In this dynamic seminar, learn how to manage accountability and anxiety in the decision-making process. Whether you are dictating or delegating a decision, or you are building a consensus, this interactive program will ground your values and guide your choices as you make better decisions.

$169.00

XBD 0149

Selling the Value of Human Resources
Participants will learn why measuring HR aspects are essential to selling the value of HR! You will learn the four levels of evaluation and how to apply them to all HR areas, five basic measurements to consider, and techniques for determining what to measure. In addition, participants will learn the four questions to ask in relation to measurements and strategies for evaluating HR functions, and will receive formulas for measurements.

$109.00

XBD 0150

Retaining Valuable Staff
Participants will learn the reasons employees leave their employers, what makes employees want to stay with their employers, and what top performers want from an organization. Also included in this session are some of Peter Drucker's ideas on management and ways and methods to energize your organization to increase both retention and profitability.

$109.00

XBD 0151

The Prevention of Harassment in the Workplace
Participants will learn that harassment of any kind-- race, national origin, religion, age, and sex (gender) violates the Civil Rights Act. Participants will learn to distinguish between two kinds of sexual harassment-- "quid pro quo" and "hostile environment" and how each of these affects the productivity and profitability of the organization. Participants will also learn the critical aspects of an anti-harassment policy and the steps to conducting an investigation of a harassment claim.
Selling to the Generations
It is probably the most difficult aspect of the selling process. One's ability to span the generational differences and sell to customers of another generation. The language barriers, values, and needs are discussed. Solutions are provided as to how to sell to the other generation. Learn how to tap into the high-profit potential of the Generation X and Y market segments.

Customer Service: You ARE the Organization
When building working relationships, teams, or a loyal customer base, bosses, co-workers, visitors, vendors and clients become your customers during a day's activity. Learn how to juggle responsibilities to each while maintaining a sincere smile and positive attitude.

Overcoming Presentation Anxiety
This workshop will focus on both the psychological and vocal production aspects of public speaking. Various factors that play a role in anxiety related to public speaking will be examined as well as ways to cope with this anxiety, including the understanding and execution of efficient vocal function. Techniques in both of these areas will be discussed and then demonstrated during the afternoon session when the instructors will work with participants as they present a five minute informal presentation prepared beforehand.

Introduction to Government Accounting
Learn the accounting rules, concepts, definitions and terms used by state and local government entities. Governmental, proprietary and fiduciary fund accounting is presented as well as fund and government-wide financial statements and required supplementary information.

Business Fundamentals: How It Really Works!
In this one-day workshop, you will learn the language of finance and accounting, how to read balance sheets and income statements, how to analyze retained earnings and cash flow statements, how to calculate key financial ratios, and more. This program is for all participants in all types of business and industries who need a quick overview of the key elements financial managers address in order to achieve the business goals of their department or company.

Delivering Presentations That Deliver Results
This interactive workshop will help you learn and practice skills that will dramatically improve your presentations. You will learn how to select and organize your content so your audience stays engaged and interested. You will also discover techniques that will reduce your nervousness and help you identify any distracting nonverbal behaviors.
Negotiating for Win/Win Situations
In this seminar, you will learn the importance of having a win/win situation and how to recognize when to use negotiation skills. You’ll learn skills and techniques to use during this process and how to create an environment in which the parties feel the resolution they come to is appropriate.

Writing Refresher for the Professional
This practical workshop is ideal for professionals whose jobs require periodic article or report writing. Whether you dread writing or simply want to create a polished product in less time, this seminar is for you. Loaded with tips to help you jump-start the writing process, write what you mean and win the respect of your readers.

How to Connect in Business in 90 Seconds - or Less
Think about it. We all know someone who can walk into a room full of strangers and work it. Why is it that some people seem to connect with ease and others don’t? The truth is, you don’t need to be a naturally gregarious person to immediately connect in business. Join us for this fast-paced session and learn the three key steps for creating an instant connection with your business colleagues.

Business Meetings that Work!
Corporate America is throwing away billions of dollars every year. How? Through ineffective and wasteful meetings. Request this workshop and learn how the right timing, strategies and planning can cut wasted time to a minimum while dramatically increasing effectiveness. We’ll talk about saving valuable time by actively participating in meetings and how essential skills can make all meetings work. By the end of the day, you’ll know how to make your meetings shorter, come to group decisions more quickly, and better deal with difficult participants.

Call Center Success!
Who speaks most often for your company: your CEO, COO or your CSR? We’re guessing your CSR does. Give your CSRs the skills and competencies they need to face the challenges of their valuable positions. Call Center Success is a series of brief sessions guaranteed to create top-notch CSRs. Teach your CSRs to effectively handle customers and you may have a customer for life.

Public Speaking: Conquering the Ultimate "Fear Factor"
You have been asked to give a presentation to a group of people. Just thinking about it makes your heart pound. In this course, you will learn techniques that will significantly reduce your speech apprehension. A calm, relaxed speaker is much more capable of delivering outstanding results.
XBD 0169
Fundamentals of Finance and Accounting for Non-financial Managers
From accruals to write-offs, from accounts receivable to working capital, this seminar shows you the concepts, techniques and tools that can help you make each decision pay off - on the job and on the bottom line! No matter how effective your management method or how innovative your ideas, the results are going to be measured in numbers: dollars and cents.

$1,695.00

XBD 0170
Essentials of Budgeting: From Creation Through Application
Like it or not, the budget is the yardstick top management uses to measure your actual performance. And in today's tight economy, the manager who knows how to plan and use the budget effectively wins hands down over the one who doesn't. Who should attend this seminar? Every manager with budget responsibilities.

$1,695.00

XBD 0171
Debits and Credits: How Accounting Really Works
The language of business in every industry around the globe is rooted in the "accounting equation". So keep your accountants on their toes and make sure your books are sound. Uncover and correct problems quickly by double-checking how sales, expenses, equity and debt are recorded. Developed for business professionals who have no work experience in accounting, this seminar walks you through the basics and gives you the skills and confidence to speak the language of business like a pro.

$1,695.00

XBD 0172
Intermediate Finance and Accounting for Non-financial Managers
With today's income shortfalls and unmet forecasts, correctly interpreting financial information is critical to your success. At this seminar, you'll learn how to establish financial policy and report on the performance of your department in financial terms. If you have attended AMA's Fundamentals of Finance and Accounting for Non-financial Managers or you have a basic understanding of financial statements, this class is for you.

$1,795.00

XBD 0173
Building Better Work Relationships
"New Techniques for Results-oriented Communication" This seminar will prepare you to become a "conscious communicator" who depends on consistent, respectful and credible relationships to achieve results. This seminar is designed for people who want to use effective communication and relationship management to maximize impact, productivity and results.

$1,595.00

XBD 0174
Getting Results Without Authority
Whether you're dealing with a boss, colleagues, staff members or senior management, building good relationships, winning respect and cultivating influence and cooperation are absolutely essential to get the results you want. Through the seminar leader's expertise, diagnostic instruments and actual practice sessions in influencing, communication, feedback, persuasion, listening, conflict resolution and negotiation, you'll discover how to assess your own
Influencing style and make it more effective.

$1,695.00

XBD 0175

Interpersonal Skills
Through the course leader’s expertise, diagnostic instruments and actual practice sessions, this course will teach you how to communicate across teams and functions. You’ll learn how to develop and nurture strong alliances so you can successfully draw upon the resources of your organization.

$1,595.00

XBD 0176

Projecting a Positive Professional Image
Discover a self-image that feels right to you and looks great to clients, colleagues and peers. Look, act and dress for your current position, as well as for career advancement; Read the body language of others; Use eye contact, gestures, stance and voice tone to send the right message; Convey poise and confidence; And polish your professional speech

$1,395.00

XBD 0177

Winning Through Customer Service: New Addition
Demonstrate professionalism on the job while building a problem-solving culture. Use essential communication skills in dealing with customers. Recognize characteristics of human behavioral style and opportunities to adapt to their personal style. Identify and utilize a structured process/model for conducting customer service transactions.

$199.00

XBD 0178

Winning Through Customer Service: Managers Program
Managers and team leaders will be able to: Understand their role as a successful coach. Use coaching strategies for different styles and adapt their styles for improved communication. Learn the steps for effective coaching. And monitor how service representatives can use their skills in the customer service transaction and provide effective feedback.

$249.00

XBD 0179

Delivering Presentations That Deliver Results 2: The Next Step
Learn how to improve your effectiveness as a speaker/presenter. Class size is limited to six, to ensure that each person receives extensive individual feedback and support. There is no pre-requisite for this course. Prepare a 10 to 12 minute presentation and bring it to the first class.

$269.00

XBD 0180

Listening as if Your Job Depends on It
This workshop offers you effective listening techniques and a safe environment to practice. You will identify fact from myth, complete a listening profile, investigate the obstacles to listening, uncover ways to listen better, and discover ways to help others listen to you. You will learn the nine kinds of listening and when each is appropriate. This course will increase your comfort with observing, questioning and responding techniques.
Management vs Leadership
This course will look at management vs. leadership and the components of each. A model will be utilized which gives managers/leaders a tool which will help them identify specific actions they can take in developing direct reports. The Parker Team Player Survey and the Life Styles Inventory assessments are also used.

CBT Special Events (XBA)

XBA 0001
Vital Learning Showcase
Learn more about our new partnership with Vital Learning! Exciting Business Development modules designed to improve team communication, increase leadership skills, and more.

XBA 0002
Vital Learning
Number Skills Pilot class with Vital Learning

XBA 0003
Administrative Professionals
This year will focus on The Power of YOU and will continue the tradition of years past; incorporating fun and business skill training that Administrative Professionals can use to generate results in the workplace. Fees for the Day: Single Registration $169; Two or more from the same company $159; and Early Bird (before March 9, 2007) $149.

XBA 0004
DDI Showcases
A description is not available for this course.

XBA 1000
Terrorism
Understand how a terrorist cell functions; learn the HVGO principle; understand terrorism linkages; become familiar with Islamic extremism, develop an understanding of bombing and its relationship to the technology of terrorism.

Career Planning (XVR)

XVR 1004
Individual Mock Interview
Successful interviewing requires practice. If you need practice, this service would be beneficial to you. Participants will be video-taped during the mock interview
and be provided with a critique of the session. Please bring a videotape.

$75.00
XVR 1005
Resume Development
A description is not available for this course.

$175.00
XVR 1006
Cover Letter Development
A description is not available for this course.

$75.00
XVR 1007
Building Your Resume: The Ins and Outs of Resume Development
Whether you are looking for your first job, changing careers, or seeking a promotional opportunity outside of your current organization, your resume is one item that makes a first and lasting impression. During this session, you will learn how to develop your own resume that will help you land your desired job. Time will be allocated to answer your specific questions or handling tough work situations or experiences. Bring your education and work histories, along with any information you believe necessary to assist in building your resume - from the first line to the last!

$125.00
XVR 1010
Getting Hired is the Goal
Individual outplacement services.

$750.00
XVR 1015
Career Redirections Showcase
Career Redirections is Johnson County Community College's premier outplacement and employee career development program which provides a comprehensive, cost-effective array of services tailored to your company's specific needs. Please join us as we launch the JCCC Career Redirections Showcase on January 11, 2005.

$0.00
XVR 1100
Career Transitions - A Career Planning Workshop
Are you thinking about changing careers? Do you need some help deciding what it is you would like to do? Through the workshop activities and assessments, you will learn more about yourself and how this relates to your career options. Participants will take the MBTI (M), Self-Directed Search, SkillScan and a work values inventory (All are paper and pencil assessments).

$94.00
XVR 1101
Career Transitions PLUS - A Career Planning Workshop with Individual Career Counseling
Do you need some added direction as you define a new career path? If so, this package is designed for you. In addition to the Career Transitions workshop,
participants will receive a personalized career coaching session with a qualified professional career counselor. (Session to be scheduled within 60 days after completion of the workshop.)

$114.00

XVR 1102

Women In Career/Work Transition
Are you a stay at home mom who wants to re-enter the workforce? Are you going through a divorce and need to reevaluate your career path? This workshop will assist women in defining their career options. In addition to the assessments given and principles shared in the Career Transitions workshop, this workshop will emphasize women's issues as it relates to balancing a career, family and personal life.

$89.00

XVR 1103

Careers After Retirement
Are you nearing retirement - or already there and interested in looking for a second career? Are you like other retirees who are choosing to work for a variety of reasons - supplemental income, mental stimulation or an opportunity to connect with others? Through activities and a series of assessments including the Strong Interest Inventory and the Myers Briggs Type Indicator, the workshop will help you identify potential satisfying career options.

$79.00

XVR 1105

Retirement: Your Next Great Adventure
Explore how you can turn your retirement years into the most fulfilling exciting chapter in your life. We'll talk about challenges to expect and share strategies to help you "reinvent" your life and make the most of the new opportunities that retirement can bring you.

$24.00

XVR 1110

Parents as Career Coaches
Designed for parents to guide their high schooler through the process of self-discovery and career exploration. This workshop will increase awareness of career coaching by parents in the Supporter, Connector, Clarifier, and Motivator roles through different life stages.

$35.00

XVR 1112

Job Campaign Strategy
A description is not available for this course.

$75.00

XVR 1120

Recharging Your Career Resiliency
Autumn is a natural time for nurturing the earth after harvest. Autumn is also a time for self-reflection. This intensive weekend career development program is designed to reclaim one's self and to redefine a more conscious career path. Participants will be given a batter of career assessments to rediscover their strengths, gifts, aptitudes, interests, and skills. (Boxed lunch will be provided on Saturday.)
Exploring A Mid-Life Career Change
Are you an adult who is still trying to figure out what you want to do when you grow up? If this is the case, this workshop is for you! Participants will take the newly revised Strong Interest Inventory and Meyers Briggs Type Indicator (Q) assessment online (completed 48 hours prior to the workshop), as well as additional career related inventories. The assessments, along with workshop activities, will lay the foundation in which to identify potential career options. In addition, external and internal barriers that may sabotage your ability to identify a career path or to take the necessary steps to make it reality will be addressed. Participants will schedule a one hour follow-up session for individualized career counseling. (Session to be scheduled within 60 days of workshop completion.)

MBTI, SII & SkillScan Package
Combination of Myers-Briggs, Strong Interest Inventory and SkillScan assessments with 3-hours individual counseling interpretation.

Online Myers-Briggs Type Indicator
This course assesses personality preferences and correlating preferences with occupations. Online with access capability from off campus. Includes one-hour interpretation session with a career counselor on campus.

Online Strong Interest Inventory
This inventory assesses interests based on Holland's occupational interest themes and correlates interests with 100+ occupations. Online with access capability from off campus. Includes one-hour interpretation session with a career counselor on campus.

Online MBTI and Strong
This course offers online versions of MBTI and Strong Interest Inventory assessments with two hours of interpretation with a career counselor on campus.

Individual SkillScan Assessment
Skills assessment with one-hour counseling interpretation.

Online MBTI and Strong Combo Report
In addition to online versions of the MBTI and Strong Interest Inventory assessments a report combining the results of the two assessments will be developed. Includes two hours of interpretation with a career counselor on campus.
$155.00
XVR 1235
**Individual SkillScan Assessment**
Skills assessment with one-hour individual counseling interpretation.

$79.00
XVR 1240
**MBTI and SII Combo Report**
Combining SII code and MBTI preference for a report.

$25.00
XVR 1300
**Individualized Counseling**
Professional career counseling services are available for community members who are interested in personalized career planning. For more information or to schedule an appointment, call 913-469-3890. $50 per one hour session.

$50.00
XVR 1500
**Career Coaching**
A description is not available for this course.

$459.00
XVR 1501
**Career Compass**
Geared to high school students interested in self-discovery and exploring career opportunities. Workshop includes taking career assessments, learning methods of career exploration and utilizing available career resources in the community.

$42.00
XVR 5011
**Job Search Strategies**
This course will teach you how to bring your skills to a potential employer’s attention before they advertise a job, totally eliminating competition. Find out how to set up an interview, how to dress, how to behave, and how to control an interview. You’ll learn what to do when asked common trap questions. You’ll even get tools you can use to convert a turn-down into a new referral.

$98.00
XVR 5012
**Individual Excellence - Web-Based**
Develop career-enhancing skills in a single course that covers twelve popular one-day seminar topics, including goal setting, time management, and personal organization. You’ll learn how to improve your creative abilities, gain confidence with financial matters, and how to minimize conflict in your life. Develop a fulfilling career plan and improve relationships with co-workers, friends and family.

$98.00
XVR 5013
**Web-based Secrets of Success and Achievement**
Ready to improve your life? Then this course-packed full of practical tips, tools,
and techniques distilled from decades of ground-breaking research into peak effectiveness—will be perfect for you. Find out the best ways to reach fulfillment and exceed desired levels of success. Create physical, mental and emotional resiliency and the ability to meet any professional or personal challenge. This is an intense and action-oriented course that will make a dramatic difference in your life.

$98.00

**XVR 5014**

**Work Yourself Happy! - Web-Based**

Here's your chance to begin designing a life that really works for you. With a complete understanding of your own interests, values, needs and abilities, you'll learn how you can use work to express yourself and share your interests and talents. You will be given the opportunity to experience, understand, and implement career strategies as they are introduced.

$98.00

**XVR 5015**

**12 Steps to a Successful Job Search - Web-Based**

In this course, a world-renowned author and career advisor will help you identify the job that is best for your needs. You'll then be given complete step-by-step instructions on how to get that job, regardless of your level of expertise or state of the economy. This motivational course will increase your confidence, help you feel great about yourself, and provide you with the foundation you need to get the job you want.

$98.00

**Computer Training (XCM)**

**XCM 1006**

**Senior Series**

Combine all four of our Senior classes into one pre-scheduled series at a discounted price. Learn about basic computer skills, word processing and the internet.

$140.00

**XCM 1007**

**Introduction to Personal Computers for Seniors I**

If you have never owned a computer, have never touched a mouse, and need to have instruction and the time to practice the basic skills necessary to operate a keyboard and mouse, then this is the class for you. Three hours of personal attention.

$40.00

**XCM 1008**

**Introduction to Personal Computers for Seniors II**

This class will introduce new owners to the necessary skills needed to use the computer such as mouse skills and using the keyboard. We will spend time examining how to make files, store files, personalizing the desktop, keyboard, mouse, plus finding tutorials inside the computer and on the Internet that will help you learn how to do various jobs on the computer. Leave class with plenty of work to do.

$40.00

**XCM 1010**
eBay--Online Auctions
Take a class that just might pay for itself. Learn the ins and outs of selling and buying on eBay, the world's premiere online auction site. The provided information, proven tactics, and easy-to-apply methods empower users, especially those already familiar with the site, to quickly achieve higher levels of success at eBay. Prerequisite: Introduction to the Internet or comparable knowledge.

$189.00
XCM 1019

Teen Web Design with Dreamweaver and Flash
Why settle for surfing the web when you can build your own website. Discover how easy it is to build and animate a website and then publish to the internet for all your friends to view. Prerequisite: Ability to work with computer, keyboard and mouse.

$299.00
XCM 1020

Dreamweaver Web Design-Teens
This class is for young adults, ages 12-18 years old. Discover the easy way to build Web sites using Macromedia’s Dreamweaver MX. Why bother with HTML when an application will do the work for you? Create a Web page, design a site, work with text and images, frames, links and more as you get on your way in Web design and development.

$249.00
XCM 1021

Teen Game Development--2D Games
Explore 2D video game development in a variety of genres, simple point and click games, 2D Shooters, Maze Games and Platform Games. It makes use of Game Maker, a freely available software package with a large, active community of users and developers. Prerequisite: Familiarity with Windows applications -- ages 13-18.

$299.00
XCM 1022

Teen Game Development--3D Games
Receive an introduction to the development of 3D Video Games. Make use of 3D Game Studio, a low cost software package with a large, active community of users and developers. The course will take you through an extended tutorial creating a single 3D level and adding simple shooter capability to the finished product. Prerequisite: Game Development-2D Games -- ages 13-18.

$299.00
XCM 1023

Teen 2D/3D Game Pack
Receive instruction in our 2D and 3D game development classes for one low price. Prerequisite: Familiarity with Windows applications and simple graphics manipulations -- ages 10-18.

$799.00
XCM 1024

Blogging: Publishing a Web Log
Writing in a journal is all well and good, but when you're ready to share your musings with the world (and you think the world is ready to receive them!), a blog is the way to go. As the latest phenomenon to grow out of the Web, the blog (or
Web log) is a diary with a difference. Rather than speaking to yourself, you're speaking to the world--and, best of all, the world can talk back! Prerequisite: Familiarity with Windows, Internet navigation and a subject to share with the world.

$129.00

XCM 1025

Flash Game Design-Teens
If you're familiar with Macromedia's Flash then take the next step and begin developing your own games in Flash. Assuming no previous programming knowledge, you will learn how to create and design your own programs quickly and easily.

$649.00

XCM 1034

Introduction to the Internet for Seniors
Configuring the browser, understanding the Internet, Internet security, cookies, temp files, popups, spyware, favorites, history, etc. We will have search projects in class as groups.

$40.00

XCM 1051

Introduction to Word Processing for Seniors
This class will use existing word processing programs within the XP plus Microsoft Word to complete projects that include tables, inserting graphics, creating greeting cards, creating labels, and mail merge.

$40.00

XCM 1200

Introduction to Personal Computers
New to computers? In this course, learn about the physical components of computers and take a brief tour of Windows. Hard drives, floppy disks, CD-ROMs, RAM, monitors, modems and other hardware, and computer terminology will be discussed.

$119.00

XCM 1450

Windows Introduction
Get started with Windows XP, and take control of your computer. The best way to become comfortable working with your computer is to learn about the Operating System (OS). Explore the basics as you do just that in this introductory-level class.

$139.00

XCM 1455

Windows Advanced
Explore advanced features that stream-line the use of Windows and allow you to work more efficiently. Create passwords and user profiles, work with network features, and system tools to optimize system performance. Prerequisite: Experience with Windows, keyboard and mouse required.

$139.00

XCM 1583
Adobe Acrobat Advanced
Further develop your PDF documents. Use Acrobat to convert technical documents to PDF files, enhance and control PDF content accessibility, customize PDF documents for interactive use online, and prepare PDFs for commercial printing. Maps to ACE. Prerequisite: Acrobat Fundamentals or comparable knowledge.

$189.00
XCM 1585

Adobe Acrobat Fundamentals
Use Adobe Acrobat 7 to make information more portable, accessible, and useful to meet the needs of your target audience. Access information in a PDF document, create PDF documents, modify PDF documents, add PDF navigation aids, work with multiple PDF documents, and review PDF documents. Maps to ACE. Prerequisite: Familiarity with Windows, keyboard, and mouse.

$189.00
XCM 1586

Adobe GoLive Fundamentals
Discover the basics of the GoLive web development application by using it to build and upload a website. Learn to develop a website complete with web pages that contain text, images, links, tables, and forms. Maps to ACE. Prerequisite: Familiarity with Windows, keyboard and mouse. Should have familiarity with the internet.

$289.00
XCM 1587

Adobe GoLive Advanced
Building a website is no longer a difficult task. Discover GoLive's advanced features to build more sophisticated websites. Explore advanced concepts that include dynamic elements, rollovers, navigation bars, layers, and animations. Maps to ACE. Prerequisite: GoLive Fundamentals or comparable knowledge.

$289.00
XCM 1588

Adobe InDesign Fundamentals
Familiarize yourself with print layout and design using InDesign. Work with some of the tools and features to create eye-catching printed documents. Manage the InDesign environment, design documents, manage text, utilize colors, swatches, and gradients, manage transparency, utilize tables, prepare for handoff to a service provider, and create Acrobat PDF files. Maps to ACE. Prerequisite: Familiarity with Windows, keyboard and mouse. Should have basic understanding of page layout and design.

$289.00
XCM 1589

Adobe InDesign Advanced
Discover the advanced features in InDesign to create catchy and attractive documents for print and web. Administer advanced styles, control text, handle page elements, graphics and paths, develop Besier paths, manage long documents, import and export files, adjust print settings and work with XML. Maps to ACE. Prerequisite: InDesign Fundamentals or comparable knowledge.

$289.00
XCM 1605
Macromedia Web Design Certificate
Combine the following classes: HTML and Web Page Design, Cascading Style Sheets, Dreamweaver: Designing Websites, Dreamweaver: Database Connections, Fireworks: Web Graphics and Interactivity, Flash Fundamentals, Flash: Interactive Movies, and Flash: Advanced Techniques in one easy-to-follow schedule at a special, reduced price. Everything you need to know to become Web-design proficient. This course series is eligible for a payment plan. Please call 913-469-3891 for information about this option. Prerequisite: Knowledge and experience with Windows OS and the internet.

$1,800.00
XCM 1700

Keyboarding Fundamentals
Learn keyboarding skills or improve your current skill level. The flexible format is designed to improve skill, speed and accuracy. Immediate feedback on typing speed and accuracy is provided with each lesson. IBM-compatible software and practice exercises are provided for the student to take home.

$149.00
XCM 2305

Word Fundamentals
Designed to give proficiency in creating, opening, formatting, saving, and printing a document. Explore how to edit documents and automate tasks. Format text, characters, and paragraphs. Create tables, control page layout and use proofing tools. Prerequisite: Knowledge of Windows, keyboard and mouse.

$159.00
XCM 2306

Word Intermediate
Explore more advance Word features and functions, such as creating columns and sections, formatting tables, importing table data, applying styles, adding headers and footers, using the drawing canvas, and creating templates. Prerequisite: Word Fundamentals or comparable knowledge.

$159.00
XCM 2310

Word Advanced
Perform mail merges, create and use forms and form letters, and create master documents as well as macros to automate tasks. Customize menus and toolbars. Prerequisite: Word Intermediate or comparable knowledge.

$159.00
XCM 2315

Word VBA Programming
Gain proficiency in the Visual Basic Editor (VBE), Word objects, basic VBA programming, control structures, debugging tools, advanced VBA programming, and event handling. Prerequisite: Word Advanced or comparable knowledge.

$159.00
XCM 2321

Word Specialist Certificate
Receive instruction in our lineup of Word classes. Build a solid foundation with Word Fundamentals and Word Intermediate before moving on to more advanced topics in Word Advanced. Once completed, either take the MOS exam at our Prometric testing center or use your Center for Business Word Specialist
Certificate to verify your competency. Prerequisite: Familiarity with Windows, keyboard and mouse.

$399.00
XCM 2500

Web-Based Creating Web Pages (HTML)
Learn how to design, create and post your very own site on the Internet's World Wide Web. Discover low-cost marketing techniques and search engine strategies. Note: Please confirm computer requirements before registering for this course and Web registration is not available. After you register, complete the required on-line orientation at www.ed2go.com/jccc.

$104.00
XCM 2502

Web-Based Introduction to JSP Programming
In this course you will learn how to create JSP code and use it to access data stored in a Web application or in a database. You will be able to create and manage cookies, handle forms, display custom data, and more! Note: Please confirm computer requirements before registering for this course and Web registration is not available. After registration, please complete the required on-line orientation at www.ed2go.com/jccc.

$104.00
XCM 2505

Web-based Advanced Web Pages
Learn how to turn great Web pages into great Web sites from a top Internet author. Note: Please confirm computer requirements before registering for this course and Web registration is not available. After you register, complete the required on-line orientation at www.ed2go.com/jccc.

$78.00
XCM 2508

Web-Based Designing Effective Websites
Learn powerful graphic design techniques and build Web sites that are both attractive and wickedly effective. Note: Please confirm computer requirements before registering for this course and Web registration is not available. After you register, complete the required on-line orientation at www.ed2go.com/jccc.

$104.00
XCM 2517

Web-Based Introduction to Dreamweaver MX
Master the best and most widely used Web design tool available. You will create and format text, images, tables, and various other Web page elements. You will also explore page design. Note: Please confirm computer requirements before registering for this course, web registration is not available. After registration, complete the required on-line orientation at www.ed2go.com/jccc.

$104.00
XCM 2518

WB: Intro to FrontPage 2003
A description is not available for this course.

$104.00
XCM 2519
**WB: Intro to Dreamweaver 8**
Learn to harness the power of this industry-standard Web design program from a Silicon Alley veteran. Master the basics of document creation and how to insert and format text, images, hyperlinks, tables, multimedia files, and other types of Web page content.

$104.00
XCM 2522

**Web-Based Introduction to PhotoShop 7**
Learn how to use layers, blends, masks, and transformations. You will also learn how to create a variety of special effects and how best to create and save images for the Web. Note: Confirm computer requirements before registering for this course. Web registration is not available. After you register, complete the required on-line orientation at www.ed2go.com/jccc.

$104.00
XCM 2525

**Web-Based Keyboarding**
Use the computer program FasType for Windows to learn the basic skills of touch-typing. Note: Please confirm computer requirements before registering for this course and Web registration is not available. After you register, complete the required on-line orientation at www.ed2go.com/jccc.

$104.00
XCM 2530

**Web-Based Introduction to Visual Basic 6.0**
Visual Basic is the most popular development tool in the world and the easiest to learn. You will learn the basic designs and how to add various controls to interfaces. Note: Please confirm computer requirements before registering for this course and Web registration is not available. After registration, complete the required on-line orientation at www.ed2go.com/jccc.

$104.00
XCM 2531

**Web-Based Introduction to CorelDraw X3**
Enhance your company newsletter, logo, or letterhead, boost your personal Web page, or create an original greeting card with dazzling images you've created with CorelDRAW. Learn how to add brilliant colors, designs and exquisite text to your original artwork and then export them with ease to other computer applications, such as Microsoft Office, Adobe Acrobat, and the Web. Note: Please confirm computer requirements before registering for this course. Web registration is not available. After registration, complete the required on-line orientation at www.ed2go.com/jccc.

$104.00
XCM 2532

**Web-Based Introduction to Visual Basic 2005**
Visual Basic is the most widely used programming language and development tool for creating Windows applications. The Visual Basic programming language is very easy to learn, and the Visual Basic 2005 development environment enables you to rapidly build Windows applications. In six short weeks, you'll learn how to write Windows applications using the Visual Basic programming language and the Visual Basic 2005 development environment. You'll also learn principles of object-oriented and event-driven programming that you can use, not only with Visual Basic, but also with other programming languages you may want to learn. Note: Please confirm computer requirements before registering for this course. Web registration is not available. After registration, complete the required on-line
$150.00
XCM 2545
Web-Based Computer Skills for the Workplace
Learn the fundamental computer skills you need to succeed in today's workplace. You'll discover practical applications for e-mail, word processors, spreadsheets and databases, gaining a working foundation for the critical computer skills you need to survive in the modern job market. Note: Please confirm computer requirements before registering for this course and Web registration is not available. After registering, complete the required on-line orientation at www.ed2go.com/jccc.

$104.00
XCM 2573
Web-Based Introduction to Flash MX 2004
In this six-week on-line course, you'll learn how to use Flash MX 2004 to create dynamic, entertaining, and interactive Web sites and other projects. You'll discover the basic tools and techniques for making a Flash movie. You'll use Flash to create and modify graphics and text, build simple animations, and design Web site navigation buttons. Before you know it, you'll have a solid understanding of Flash and how best to make it work for you. Note: Please confirm computer requirements before registering for this course. Web registration is not available. After registration, complete the required on-line orientation at www.ed2go.com/jccc.

$104.00
XCM 2577
Web-Based Introduction to Gaming Industry
Learn about game development, game design, and production and the current challenges facing the gaming industry. Learn how to prepare for a dynamic career and succeed on the technical, artistic, or business side of game development. Note: Please confirm computer requirements before registering for this course and Web registration is not available. After registration, complete the required on-line orientation at www.ed2go.com/jccc.

$104.00
XCM 2585
Web-Based PowerPoint Intermediate
Learn to create exciting presentations from an expert in PowerPoint and digital media. Work smarter in PowerPoint and use graphics, animation, digital photography and video to hold your audience’s attention and create memorable presentations for public speaking, teaching, video, or the Web. Note: Please confirm computer requirements before registering for this course and Web registration is not available. After registration, complete the required on-line orientation at www.ed2go.com/jccc.

$104.00
XCM 2596
Web-Based Introduction to Windows XP
This course covers all the basic skills and concepts needed to use a computer. This course will teach you how to work with text, pictures, photos, sound, music, DVD, Interactive TV, and video. Note: Confirm computer requirements before registering for this course. Web registration is not available. After registration, complete the required on-line orientation at www.ed2go.com/jccc.
XCM 2597

**WB: Introduction to the Internet**
Master the ins and outs of the Internet with this informative, behind-the-scenes look at the World Wide Web, e-mail, Gopherspace, Newsgroups, FTP, chat, telephony, Telnet, and more. Note: Confirm computer requirements before registering for this course. Web registration is not available. After you register, complete the required on-line orientation at www.ed2go.com/jccc.

$104.00

XCM 2701

**Web-Based Using the Internet in the Classroom**
Find out how you can use the Internet to make your textbooks and lessons come alive. Teach your students how to locate and evaluate Internet resources. Improve the caliber and amount of discussion through the use of e-mail and discussion boards. The Internet can make teaching easier--this course will show you how.

$104.00

XCM 2702

**Web-Based PowerPoint in the Classroom**
This course will help you discover the exciting possibilities of using PowerPoint with your students. You will master a variety of uses for PowerPoint in the classroom, by creating compelling lessons and presentations. Note: Please confirm computer requirements before registering for this course and Web registration is not available. After registering please complete the required on-line orientation at www.jccc.ed2go/jccc.com

$104.00

XCM 2703

**Web-Based Introduction to PrintShop Deluxe**
Work with an expert designer and learn how you can get the most out of the friendliest and most popular design programs on the market. In this fun and practical course you will learn how to quickly and effortlessly create a variety of projects that you can put to immediate use, including greeting cards, envelopes, labels, postcards, signs and banners. By the end of this course, you will be fully prepared to create your own design projects from scratch. Note: Please confirm all computer requirements before registering for this course and Web registration is not available. After registering, complete the required on-line orientation at www.ed2go.com/jccc.

$104.00

XCM 2704

**Introduction to Crystal Reports 10**
Learn how to use Crystal Reports to convert raw database or accounting data into meaningful and readable reports. You will be able to create a wide variety of reports that communicate more than mere facts. You will be able to use charts and maps to present information visually, and cross-tabs, to show correlations between loosely related data items. Note: Please confirm computer requirements before registering for this course and Web registration is not available. After registration, complete the required on-line orientation at www.ed2go.com/jccc.

$104.00

XCM 2705

**WB: Intro to Outlook Express**
Learn to create, send receive, and organize e-mail and newsgroup messages using the popular Outlook Express e-mail program. Note: Please confirm
computer requirements before registering for this course and Web registration is not available. After registration, complete the required on-line orientation at www.ed2go.com/jccc.

$104.00  
XCM 2706  
Web-Based: Introduction to MS Word 2003  
A description is not available for this course.

$104.00  
XCM 2707  
Web-Based: Intermediate MS Word 2003  
A description is not available for this course.

$104.00  
XCM 2708  
Web-Based: Advanced MS Word 2003  
A description is not available for this course.

$104.00  
XCM 2709  
Web-Based: Introduction to MS Excel 2003  
A description is not available for this course.

$104.00  
XCM 2710  
Web-Based: Intermediate MS Excel 2003  
A description is not available for this course.

$104.00  
XCM 2711  
Web-Based: Introduction to MS Access 2003  
A description is not available for this course.

$104.00  
XCM 2712  
Web-Based MS Outlook 2003  
Harness the communication and information management power of Microsoft Office Outlook 2003. Take advantage of its redesigned interface and new features to become more organized and productive than ever before. Note: Please confirm computer requirements before registering for this course and Web registration is not available. After registration, complete the required on-line orientation at www.ed2go.com/jccc.

$104.00  
XCM 2713  
Web-Based Imaging for the Web using Fireworks MX 2004  
Tap into the power of Fireworks MX 2004 to create dynamic Web graphics.

$104.00
XCM 2714
Web-Based Imaging for the Web using Fireworks MX
Tap into the power of Fireworks 2004 to create dynamic Web graphics.
$104.00

XCM 2715
Web-Based Projects for Illustrator
Learn the basics of Adobe Illustrator with design projects that let you practice as you learn.
$104.00

XCM 2716
WB: Intro to Powerpoint 2003
Learn to create impressive slide presentations filled with formatted text, images, video, audio, animation, charts, and links to the Web.
$104.00

XCM 2717
WB: Interm Access 2003
A description is not available for this course.
$104.00

XCM 2718
WB: Intro to MS Proj 2003
A description is not available for this course.
$104.00

XCM 2719
WB: Intro to Photoshop CS
Learn the basics of using Adobe Photoshop to create images and edit photos.
$104.00

XCM 2720
WB: Photoshop Elements Project
Take your Photoshop Elements skills to the next level by working through 12 hands-on projects.
$104.00

XCM 2721
Web-Based: Introduction to MS Publisher 2003
A description is not available for this course.
$104.00

XCM 2722
Introduction to Dreamweaver MX 2004
If you want to be a Web designer, you need to know Dreamweaver MX 2004. In this highly-interactive, project-oriented course, a Web pro will help you harness the full potential of this industry-standard development tool. You'll find out how to create, arrange, and format text, images, hyperlinks, tables, and various other
media types. You'll also examine intelligent page design - with an emphasis on
avoiding common layout errors. Note: Please confirm computer requirements
before registering for this course. Web registration is not available. After
registration, complete the required on-line orientation at www.ed2go.com/jccc.

$104.00
XCM 2724
Web-Based Introduction to Adobe Framemaker 7.1
If you want to be a technical writer, you need to learn Adobe Framemaker, the
gold standard for publishing technical documentation. In this practical, hands-on
course, a seasoned professional will show you how to take advantage of
Framemaker's renowned ability to handle large, complex documents for both
print and online. Note: Please confirm computer requirements before registering
for this course. Web registration is not available. After registration, complete the
required on-line orientation at www.ed2go.com/jccc.

$104.00
XCM 2726
Web-Based Advanced Microsoft Excel 2003
Maximize your investment in MS Excel by learning advanced techniques that
most users don't even know exist. In this practical, hands-on course, you'll learn
how to use scenarios and data tables to quickly perform multiple what-if analyses.
You'll discover a variety of advanced pivot table techniques like creating
calculated fields and calculated items. You'll be able to use validation to protect
the integrity of your worksheets from other, less experienced users. You'll become
adept at consolidating and importing data, and you'll learn the act of conditional
formatting to highlight duplicate entries and other common worksheet problems.
Impress your co-workers by learning how to add functional and eye-catching
controls to any worksheet, and find out how to nest one function inside another to
accomplish just about anything that Excel has to offer. Note: Please confirm
computer requirements before registering for this course. Web registration is not
available. After registration, complete the required on-line orientation at
www.ed2go.com/jccc.

$104.00
XCM 2727
Introduction to Macromedia Director MX 2004
Master the world's leading multimedia production tool and gain skills that are in
high demand. Learn how to create high-impact applications for distribution on
CD-ROMS and the Web. Combine text, graphics, audio, video, and animated
elements to create dazzling, interactive presentations, even if you are completely
new to the world of media and animation. Note: Please confirm computer
requirements before registering for this course. Web registration is not available.
After registration, complete the required on-line orientation at
www.ed2go.com/jccc.

$104.00
XCM 2728
Web-Based PMP Certification Preparation I
Learn how to prepare for the Project Management Institute's prestigious PMP
certification exam. Master the first six chapters of A Guide to the Project
Management Body of Knowledge (PMBOK Guide), 3rd edition--the most essential
resource for the PMP certification exam. Learn all about the nine Project
Management Knowledge Areas, five Process Groups, and 44 project
management processes. Raise your project management IQ by discovering tips
and techniques related to the questions you'll encounter on the PMP exam. Use
proven learning strategies to help absorb key terminology, concepts, and
formulas. Note: Please confirm computer requirements before registering for this
course. Web registration is not available. After registration, complete the required
on-line orientation at www.ed2go.com/jccc.
XCM 2729
Web-Based PMP Certification Preparation II
Prepare to take--and pass--the Project Management Institute's PMP certification exam. Master chapters seven through twelve of A Guide to the Project Management Body of Knowledge, the most essential resource for the PMP certification exam. Learn all about the nine Project Management Knowledge Areas, five Process Groups, and 44 project management processes. Raise your project management IQ by discovering tips and techniques related to the questions you'll encounter on the PMP exam. Use proven learning techniques to help you absorb key terminology, concepts, and formulas. Note: Please confirm computer requirements before registering for this course. Web registration is not available. After registration, complete the required on-line orientation at www.ed2go.com/jccc.

XCM 2730
Web-Based PMP Certification Prep I
Learn how to prepare for the Project Management Institute's prestigious PMP certification exam. Master the first six chapters of A Guide to the Project Management Body of Knowledge (PMBOK Guide), 3rd edition--the most essential resource for the PMP certification exam. Learn all about the nine Project Management Knowledge Areas, five Process Groups, and 44 project management processes. Raise your project management IQ by discovering tips and techniques related to the questions you'll encounter on the PMP exam. Use proven learning strategies to help absorb key terminology, concepts, and formulas. Note: Please confirm computer requirements before registering for this course. Web registration is not available. After registration, complete the required on-line orientation at www.ed2go.com/jccc.

XCM 2731
Web-Based PMP Certification Prep II
Prepare to take--and pass--the Project Management Institute's PMP certification exam. Master chapters seven through twelve of A Guide to the Project Management Body of Knowledge, the most essential resource for the PMP certification exam. Learn all about the nine Project Management Knowledge Areas, five Process Groups, and 44 project management processes. Raise your project management IQ by discovering tips and techniques related to the questions you'll encounter on the PMP exam. Use proven learning techniques to help you absorb key terminology, concepts, and formulas. Note: Please confirm computer requirements before registering for this course. Web registration is not available. After registration, complete the required on-line orientation at www.ed2go.com/jccc.

XCM 2732
Web-Based Design Projects for Adobe Illustrator CS2
Practice while you learn the fundamentals of Adobe Illustrator CS2 with useful design projects. Master Illustrator's drawing tools, including the Pen tool. Learn how to use Illustrator's many image-editing features. Reinforce your Illustrator skills as you explore the elements of composition, color, and typography, along with secrets of good graphic design. Note: Please confirm computer requirements before registering for this course. Web registration is not available. After registration, complete the required on-line orientation at www.ed2go.com/jccc.

XCM 2733
WB: Intermediate Photoshop CS2
Learn the secrets of professional image editing from a 2006 nominee to the Photoshop Hall of Fame. If you already understand the basics of the Photoshop toolset, this course will help you explore new and better techniques you can use to create images, edit photos, and combine existing images in amazing ways. Note: Please confirm computer requirements before registering for this course. Web registration is not available. After registration, complete the required on-line orientation at www.ed2go.com/jccc.

$104.00  
XCM 2734  
Web-Based Introduction to Microsoft Visio 2003  
In today’s fast-paced, technology-driven workplace, you need clear communication to get ahead. Learning to create professional-looking diagrams in Microsoft Visio 2003 will take your skills set to the next level. Follow along as a seasoned industry professional leads you through easy-to-follow projects and exercises to design diagrams based on industry standards and best practices. You’ll learn how to use Visio’s many features and functions to make your diagrams pop. Note: Please confirm computer requirements before registering for this course. Web registration is not available. After registration, complete the required on-line orientation at www.ed2go.com/jccc.

$104.00  
XCM 2735  
Web-Based Creating Web Pages II  
Are you using HTML to its fullest potential? In this hands-on course, you’ll become adept at using color, tables, and frames to give your Web pages a more polished and professional look, improved navigation, and more organization. Beef up the fun factor with audio and interactive forms, and learn how to save hours of time and effort with Cascading Style Sheets. Note: Please confirm computer requirements before registering for this course. Web registration is not available. After registration, complete the required on-line orientation at www.ed2go.com/jccc.

$104.00  
XCM 2736  
Web-Based Introduction to CSS and XHTML  
Learn how to create state-of-the-art Web sites using modern CSS and XHTML techniques. Take your existing HTML skills to the next level and start building sites like the pros. Note: Please confirm computer requirements before registering for this course. Web registration is not available. After registration, complete the required on-line orientation at www.ed2go.com/jccc.

$104.00  
XCM 3404  
Excel Specialist Certificate  
Receive instruction in our complete lineup of Excel classes. Build a solid foundation with Excel Fundamentals and Excel Intermediate before moving on to more advanced topics in Excel Advanced. Once completed, either take the MOS exam at our Prometric testing center or use your Center for Business Excel Specialist Certificate to verify your competency. Prerequisite: Knowledge of Windows, keyboard and mouse.

$469.00  
XCM 3405  
Excel Fundamentals  
Designed for students with limited Excel experience. Gain proficiency with entering and editing data, modifying a worksheet, using functions, printing, creating charts and basic web features. Prerequisite: Knowledge of Windows,
keyboard and mouse.

$169.00

**XCM 3406**

**Excel Intermediate**
Create simple worksheets and charts that will be used for internal reports and data tracking. Work with large worksheets, multiple worksheets and multiple workbooks as you use 3-D formulas for linking and consolidating data. Customize menus and toolbars and use advanced formatting to make Excel work for you. Explore list management, advanced charting, auditing features, and templates. Prerequisite: Excel Fundamentals or comparable knowledge.

$169.00

**XCM 3407**

**Excel Advanced**
Perform advanced tasks, such as creating nested functions and using advanced formulas. Work with data tables, PivotTables and PivotCharts. Export/import data, performing what-if analyses, record macros, and publishing worksheets as Web pages. Prerequisite: Excel Intermediate or comparable knowledge.

$169.00

**XCM 3411**

**Excel VBA Programming**
Create procedures that run in response to specific events, create user forms to accept or display data, validate the data entry in user forms, and debug and handle errors in code. Explore the Visual Basic Editor (VBE) as you begin programming basics and application development. Prerequisite: Excel Advanced or comparable knowledge.

$169.00

**XCM 3415**

**Excel Customization and Data Analysis**
Use formulas, functions, arrays, and add-ins for manipulating and analyzing data. Explore advanced editing and formatting features, advanced graphics and chart customization, analyzing and sharing data, and advanced customization. Prerequisite: Excel Intermediate or comparable knowledge.

$169.00

**XCM 4000**

**Adobe Photoshop Fundamentals**
Familiarize yourself with image editing using Photoshop. Examine the tools and features available to you as you edit images using Photoshop CS2. Work with tools for painting, retouching, and enhancing images. In addition, you will work with layers and layer selections. Maps to the ACE. Prerequisite: Familiarity with Windows, keyboard and mouse.

$289.00

**XCM 4001**

**Adobe Photoshop Web Production**
This course will familiarize you with concepts and techniques important for optimizing images for display on the Internet, including image animation. Prerequisite: Adobe Photoshop Fundamentals, Adobe Photoshop Advanced.

$189.00
XCM 4002
Adobe Photoshop Advanced
Learn to manage images for optimal web and print display. Work with advanced image handling tools and features available in Photoshop CS2. Create images for use on the web, prepare images for viewing across different platforms, and manage color in images. Use advanced image and video support features and automate Photoshop tasks. Maps to ACE. Prerequisite: Photoshop Fundamentals or comparable knowledge

$289.00

XCM 4003
QuarkXpress Fundamentals
Create high-quality single- and multiple-page documents for professional publication. Use QuarkXPress to lay out professional quality documents that include text and graphics, and are designed for professional printing and publication. Prerequisite: Familiarity with Windows and basic word processing functions.

$289.00

XCM 4004
QuarkXpress Intermediate
Build on your existing skills to learn some of the more advanced features of QuarkXPress. Explore some techniques that will allow you to improve your workflow and take existing layouts and use efficient techniques to make them more professional-looking. Prerequisite: QuarkXPress Fundamentals.

$289.00

XCM 4005
Adobe Photoshop Elements: Working with Photos
Photoshop Elements opens the door for amateur photographers, business users, students, and home users who want professional-looking images for their print and Web projects. Capture photos from traditional or digital cameras, reduce red eye, correct color, work with layers, erase backgrounds, create photo-illustrations and Web graphics, simulate painting and drawing techniques, apply artistic effects, and more. Prerequisite: Familiarity with Windows, keyboard and mouse.

$189.00

XCM 4100
Adobe Illustrator Fundamentals
Adobe Illustrator is a sophisticated graphics program capable of creating complex and attractive illustrations and type effects for use in logos, advertisements, and other illustrations. In this course you will start by drawing and manipulating simple shapes to create logos, then combine text and graphics to create advertisements. Prerequisites: Knowledge of Windows, keyboard and mouse.

$189.00

XCM 4102
Adobe Illustrator Advanced
Expand on your skills to create more complex illustrations. Receive a better understanding of how to print documents without any errors or color mismatches. Discover how to prepare illustrations for the Web. Create complex, robust illustrations that go beyond those created using Illustrator's basic tools. Prerequisite: Illustrator Fundamentals or equivalent knowledge.

$189.00
XCM 4152

Fireworks: Web Graphics and Interactivity
Work with Fireworks to gain better control over editing vector and bitmap graphics and also make web graphics appear the way you had intended. Explore the tools and features of Fireworks to create and edit vector and bitmap graphics, apply interesting effects, as well as add graphical text to web pages. Prerequisite: Proficiency with Windows, keyboard and mouse.

$289.00

XCM 4219

Access Specialist Certificate
Receive instruction in our complete lineup of Access classes. Build a solid foundation with Access Fundamentals and Access Intermediate before moving on to more advanced topics in Access Advanced. Once completed, either take the MOS exam at our Prometric testing center or use your Center for Business Access Specialist Certificate to verify your competency. Prerequisite: Knowledge of Windows OS, ability to use keyboard and mouse with proficiency and a basic knowledge of database use.

$499.00

XCM 4220

Access Fundamentals
Designed for students with limited Access experience. Explore how to use the Table Wizard, AutoForm, the Report Wizard, and filtering. Discuss database concepts, database planning and design, data entry rules and simple queries. Create forms and reports. Prerequisite: Knowledge of Windows, keyboard and mouse.

$179.00

XCM 4225

Access Intermediate
Work with concepts such as relating tables, referential integrity, joins, complex queries, advanced form design, advanced reports, charts, PivotTables, PivotCharts, and Internet integration. Prerequisite: Access Fundamentals or comparable knowledge.

$179.00

XCM 4230

Access Advanced
Explore advanced techniques such as: querying with SQL; using crosstab, parameter, and action queries; creating and running macros; importing, exporting, and linking database objects; optimizing, replicating and synchronizing databases; and basic database security. Prerequisite: Access Intermediate or comparable knowledge.

$179.00

XCM 4233

Access VBA Programming
Learn about ActiveX data objects, control structures, and the basics of VBA programming. No programming knowledge required. Prerequisite: Access Advanced, Access Application Development strongly recommended.

$179.00

XCM 4236
Access Application Development
Create complex queries, create advanced forms and reports, create and use macros, and create and use data access pages. Prerequisite: Access Advanced

$179.00
XCM 5102

Publisher Fundamentals
Discover Microsoft Publisher, a flexible, easy-to-use program for creating newsletters, brochures, business cards, postcards, fliers, and more, for print, e-mail, and the Web. Explore how to create a publication from scratch or use one of the hundreds of business and personal designs available in Publisher. Prerequisite: Experience with Windows and Word Fundamentals or equivalent knowledge.

$189.00
XCM 5505

PowerPoint Fundamentals
Designed for students with little or no PowerPoint experience. Build new presentations while formatting slides, using drawing tools, working with graphics, tables and charts. Work with the slide master, add transitions and timings, create speaker notes and footers, and set up slide shows. Prerequisite: Knowledge of Windows, keyboard and mouse.

$159.00
XCM 5507

PowerPoint with Producer
Work with Microsoft Producer for PowerPoint 2003, the ideal tool for creating engaging presentations, training, and business communications. Explore how to synchronize audio, video, slides, and images to create engaging and effective rich media presentations. Bring your communications to life. Prerequisite: PowerPoint Advanced.

$159.00
XCM 5508

PowerPoint Specialist Certificate
Receive instruction in our complete lineup of PowerPoint classes. Build a solid foundation with PowerPoint Fundamentals before moving on to more advanced topics in PowerPoint Advanced and PowerPoint with Producer. Once completed, either take the MOS exam at our Prometric testing center or use your Center for Business PowerPoint Certificate to verify your competency. Prerequisite: Proficiency with Windows, keyboard and mouse.

$399.00
XCM 5510

PowerPoint Advanced
Use PowerPoint's advanced features to create enhanced presentations. Build custom presentations by modifying templates, using multimedia, using organization charts and tables, and adding special effects. Even add Office integration with Word and Excel. Prerequisite: PowerPoint Fundamentals or comparable knowledge.

$159.00
XCM 6000

Programming Fundamentals
Ready to become a programmer, or just want an introduction to object oriented
skills? Receive an introduction to Classes, Objects, Behaviors, Attributes and other object-oriented topics such as inheritance and exception handling. This is a language-independent class using an object-oriented approach to programming logic, the solid foundation needed to build 21st-century business applications and successful Web sites. Prerequisite: Proficiency with Windows, keyboard and mouse.

$439.00
XCM 6139
Visual Basic 2005 Jump Start
Focus on the new version of Visual Studio, Visual Studio 2005, and on the changes and enhancements to Visual Basic 2005. Discover key features such as enhancements to Visual Studio, the Visual Basic language, building Visual Basic desktop, mobile and web applications, and data access with ADO.NET 2.0. Prerequisite: Working knowledge of Visual Basic.NET or another .NET programming language.

$349.00
XCM 6141
Visual Basic 2005
Create programs in Visual Basic 2005 using a clean, conceptual approach. Whether new to programming or just wanting to upgrade your programming skills, you'll receive comprehensive instruction in the Visual Basic 2005 programming language.

$999.00
XCM 6143
Programming Visual Basic .NET with ADO
ADO.NET—the data-access component of the Microsoft .NET Framework—works with any component on any platform that understands XML. Get a solid handle on ADO.NET and learn how to exploit the database functionality of Microsoft Visual Basic.NET. Work with ADO.NET object model and how to use it to develop data-bound Windows forms and Web forms. See how ADO.NET interacts with XML and how to access older versions of ADO from the .NET environment. Prerequisites: Visual Basic.NET Fundamentals.

$799.00
XCM 6168
ASP.NET Fundamentals
This is the next generation of Active Server Pages! Revolutionizing the way Web applications are developed, ASP.NET is built on Microsoft's .NET framework with new functionality to ASP to make Web application development easier and more tool friendly. In this introductory course, receive an introduction to ASP.NET and Visual Studio.NET, the use of Server Controls and ASP.NET Rich Controls. Prerequisite: Programming knowledge or background, and a familiarity with HTML.

$449.00
XCM 6171
ASP.NET Advanced
Develop and deploy your ASP.NET applications. In this advanced-level class, work on configuring an ASP.NET application, troubleshooting and deploying an ASP.NET application, creating XML Web Services, and extending ASP.NET applications. Prerequisite: ASP.NET Fundamentals.

$449.00
XCM 6201

C#: Introduction for Developers
The software development industry has gone through several revolutions over the last 50 years, the most recent of which is the introduction of Microsoft's .NET platform. As a programmer, you will want your skills on the leading edge of this revolution. Of all the languages targeting the .NET platform, C# has been tailor-made for future .NET developers. Prerequisite: Knowledge of programming principals.

$999.00

XCM 7200

MS Project Fundamentals
The smart way to learn Microsoft Project! Develop a project plan with tasks, resources and assignments, master the tools for presenting your plan and creating reports. Track progress and costs, and make real-time adjustments. Learn techniques for managing multiple projects and dependencies. Collaborate using Microsoft Project Server and Microsoft Project Web Access. Prerequisite: Knowledge of project management terms and functions, experience working with Windows, keyboard and mouse.

$349.00

XCM 7250

Visio Fundamentals
Discover the key functions and features of Visio Professional. Explore basic drawing techniques, create basic diagrams, develop document layouts and use custom features. Prerequisite: Experience with Windows, keyboard and mouse.

$189.00

XCM 7251

Visio Advanced
Work with the more advanced features of Visio. Advanced flowcharts, use formulas, control shape behavior, use layers and work with linked objects. Prerequisite: Visio Fundamentals.

$189.00

XCM 8101

Introduction to the Internet
Explore the basic concepts, technologies and resources of the Internet and World Wide Web. Learn how the Internet works, how to search the Internet and how to use other Internet resources such as e-mail and newsgroups. Prerequisite: Experience with Windows, keyboard and mouse.

$119.00

XCM 8251

A+ Certificate Series
Start your IT training off in the right direction. Build a solid foundation with our A+ Essentials and A+ IT Technician classes as you start your IT career. Mapped toward both of CompTIA's A+ exams, this series will help prepare you for the industry recognized A+ certification. The exam vouchers alone have a $290 value. Prerequisite: Knowledge of Windows operating system and basic computer hardware.

$1,199.00
A+ IT Technician: 220-602
Learn how to support PC hardware in a business setting, including installation, troubleshooting, and component replacement. The target student for this course is responsible for maintaining PCs in their workplace. Prerequisite: CompTIA A+ Essentials course or equivalent experience.

$599.00
XCM 8253
Test Prep: A+ Operating Systems
Take as much time as you need to prepare for the A+ OS exam. In this self-paced, non-instructor led class you will receive an A+ OS LabSim CD and the A+ OS Exam Voucher, a $145 value. Study at home or use one of our computer labs to get yourself ready to pass the A+ OS exam. Match this with our A+ Operating Systems class and you will receive the best of instructor led training to supplement your CD based instruction. When enrolling on-line, please call 913-469-2323 to inform us of your enrollment so that we can mail the materials to you.

$199.00
XCM 8254
Test Prep: A+ Hardware
Take as much time as you need to prepare for the A+ Hardware exam. In this self-paced, non-instructor led class you will receive an A+ Hardware LabSim CD and the A+ Hardware Exam Voucher, a $145 value. Study at home or use one of our computer labs to get yourself ready to pass the A+ Hardware exam. Match this with our A+ Hardware class and you will receive the best of instructor led training to supplement your CD based instruction. When enrolling on-line, please call 913-469-2323 to inform us of your enrollment so that we can mail the materials to you.

$199.00
XCM 8255
A+ Essentials: 220-601
Mapped to the new A+ 2006 exam objectives. Obtain the skills and knowledge necessary to install, build, upgrade, repair, configure, troubleshoot, and perform preventative maintenance on personal computer hardware and operating systems. Prerequisite: Experience with desktop computers and Windows OS.

$599.00
XCM 8261
Test Prep: Network+
Take as much time as you need to prepare for the Network+ exam. In this self-paced, non-instructor led class you will receive a Network+ Lab Sim CD and the Network+ Exam Voucher, a $199 value. Study at home or use one of our computer labs to get yourself ready to pass the Network+ exam. Match this with our Networking Fundamentals and Networking Advanced classes and you will receive the best of instructor led training to supplement your CD based instruction. When enrolling on-line, please call 913-469-2323 to inform us of your enrollment so that we can mail the materials to you.

$199.00
XCM 8262
Network+ Certification Series
Combine our Networking Fundamentals class with our Network+ Test Prep CD in a package which will prepare you for CompTIA’s Network+ certification. We will include an exam voucher, a $207 value, to make this an even greater deal. Prerequisite: A+ Certification or comparable knowledge.
$799.00
XCM 8275

MCSA Certification Series
Combine 70-290: Managing and Maintaining a Microsoft Windows Server 2003 Environment, 70-291: Implementing, Managing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure, 70-270: Installing, Configuring, and Administering Microsoft Windows XP Professional, and our Security+ Certification Series class at one low cost. One week a month for four months to your MCSA. This course series is eligible for a payment plan. Please call 913-469-3891 for information about this option. Prerequisite: A+ Certification, Network+ Certification, or equivalent knowledge.

$3,000.00
XCM 8280

Internet and PC Security
Make your personal computer secure by protecting the equipment and data stored on it as well as preventing viruses and spyware. Discover how attacks through the Internet can occur and what steps can be taken to reduce the risk of Internet attacks and e-mail vulnerability. Prerequisite: Windows Introduction or comparable knowledge.

$119.00
XCM 8290

Security+
Address real-world business challenges and use hands-on exercises to ease into CompTIA's Security+ exam. Designed as an introductory network security course, included are practices for working with cryptography, common attackers, and business communications in a real-world situation. Prerequisite: A+ certification, Network+ certification or equivalent knowledge.

$849.00
XCM 8291

Security+ Certification Series
Combine our Security+ class with our Security+ Test Prep CD in a package which will prepare you for CompTIA's Security+ certification. We will include an exam voucher, a $207 value, to make this an even greater deal. Prerequisite: A+ certification, Network+ certification or equivalent knowledge.

$999.00
XCM 8294

Test Prep: Security+
Take as much time as you need to prepare for the Security+ exam. In this self-paced, non-instructor led class you will receive a Security+ Lab Sim CD and the Security+ Exam voucher, a $225 value. Study at home or use one of our computer labs to get yourself ready to pass the Security+ exam.

$199.00
XCM 8305

Networking Fundamentals
Mapped to CompTia's Network+ certification. This course introduces networking topics and terminology including topologies, protocols, media and connectors, signaling, and access methods. You'll also receive an introduction to networking hardware and the OSI model and explore TCP/IP and IP addressing. Additional topics include an introduction to IP subnets, WAN technologies, and security and remote access protocols.
Word 2003--MOS Certification Test
This CRN is to be used when calling Continuing Education Registration to pay to take the Word 2003 MOS Certification Exam. The cost for the exam is $60. The Registration phone number is 913-469-2323. After payment has been made, students will need to call the Prometric Testing Center at 913-469-2388 to schedule a time to take the exam. The Prometric Testing Center is located at West Park Center, at 87th and Farley in Overland Park.

Excel 2003--MOS Certification Test
This CRN is to be used when calling Continuing Education Registration to pay to take the Excel 2003 MOS Certification Exam. The cost is $60 per exam. The Registration phone number is 913-469-2323. After payment has been made, students will need to call the Prometric Testing Center at 913-469-2388 to schedule a time to take the exam. The Prometric Testing Center is located at West Park Center at 87th and Farley in Overland Park.

Access 2003--MOS Certification Test
This CRN is to be used when calling Continuing Education Registration to pay to take the Access 2003 MOS Certification Exam. The cost for the exam is $60. The Registration phone number is 913-469-2323. After payment has been made, students will need to call the Prometric Testing Center at 913-469-2388 to schedule a time to take the exam. The Prometric Testing Center is located at West Park Center at 87th and Farley in Overland Park.

PowerPoint 2003--MOS Certification Test
This CRN is to be used when calling Continuing Education Registration to pay to take the PowerPoint 2003 MOS Certification Exam. The cost for the exam is $60. The Registration phone number is 913-469-2323. After payment has been made, students will need to call the Prometric Testing Center at 913-469-2388 to schedule a time to take the exam. The Prometric Testing Center is located at West Park Center at 87th and Farley in Overland Park.

70-270: Installing, Configuring & Administering MS Windows XP Professional
Mapped toward MS exam 70-270, this class will help you gain the knowledge and skills needed to implement, administer, and troubleshoot information systems that
incorporate Microsoft Windows XP Professional. Part of MCSA and MCSE core exam requirement. Prerequisite: A+ Certification and Network+ Certification or equivalent knowledge.

$999.00
XCM 8317
Test Prep: 70-215 Windows 2000 Server
Take as much time as you need to prepare for the Windows 2000 Server exam 70-215. In this self-paced, non-instructor led class you will receive a Windows 2000 Server LabSim CD and the Windows 2000 Server Exam Voucher, a $60 value. Study at home or use one of our computer labs to get yourself ready to pass the Microsoft exam 70-215. When enrolling on-line, please call 913-469-2323 to inform us of your enrollment so that we can mail the materials to you.

$179.00
XCM 8318
Test Prep: 70-217 Implementing and Administering Windows 2000 Active Directory Server
Take as much time as you need to prepare for the Windows Active Directory exam 70-217. In this self-paced, non-instructor led class you will receive a Windows Active Directory LabSim CD and the Windows Active Directory exam voucher, a $125 value. Study at home or use one of our computer labs to get yourself ready to pass the Microsoft exam 70-217. When enrolling on-line, please call 913-469-2323 to inform us of your enrollment so that we can mail the materials to you.

$229.00
XCM 8319
Test Prep: 70-290 Windows Server 2003
Take as much time as you need to prepare for the Windows Server 2003 exam 70-290. In this self-paced, non-instructor led class you will receive a Windows Server 2003 LabSim CD and the Windows Server 2003 exam voucher, a $125 value. Study at home or use one of our computer labs to get yourself ready to pass the Microsoft exam 70-290. When enrolling on-line, please call 913-469-2323 to inform us of your enrollment so that we can mail the materials to you.

$229.00
XCM 8323
Test Prep: 70-210 Windows 2000 Professional
Take as much time as you need to prepare for the Windows 2000 Professional exam 70-210. In this self-paced, non-instructor led class you will receive a Windows 2000 Professional LabSim CD and the Windows 2000 Professional Exam Voucher, a $60 value. Study at home or use one of our computer labs to get yourself ready to pass the Microsoft exam 70-210. When enrolling on-line, please call 913-469-2323 to inform us of your enrollment so that we can mail the materials to you.

$179.00
XCM 8371
MS Certified Desktop Support Technician Certification Series
Combine both parts of the MCDST certification into one affordable price. If you are looking to gain entry into the IT arena, this is the perfect follow-up to your A+ Certification. Exam vouchers included. Prerequisite: A+ Certification, detailed knowledge of the MS Office application suite, MOS Certification highly recommended.
XCM 8372

MS70-271 MS Certified Desktop Support Technician: Windows OS
Mapped to exam 70-271, become a Microsoft Certified Desktop Support Technician (MCDST). Focus is on supporting users and troubleshooting the Windows XP operating system in a home or corporate environment. An entry level IT position. Prerequisite: A+ Certification or comparable knowledge.

XCM 8373

MS70-272 MS Certified Desktop Support Technician: Desktop Applications
Mapped to exam 70-272, become a Microsoft Certified Desktop Support Technicians (MCDST). Focus is on Microsoft Office 2003 applications, Internet Explorer and Outlook Express operating on a Windows XP desktop. An entry level IT position. Prerequisite: A+ Certification, detailed knowledge of the MS Office application suite, MOS Certification highly recommended.

XCM 8375

70-291: Implementing, Managing & Maintaining MS Windows Server 2003 Network Infrastructure
Mapped toward exam 70-291, in this class you will explore the skills needed to implement, manage, and maintain a Microsoft Windows Server 2003 network infrastructure. Part of MCSA, MCSE and can be used for an MCDBA core exam requirement. Prerequisite: A+ Certification and Network+ Certification or equivalent knowledge.

XCM 8376

Test Prep: 70-216 Implementing and Administering Windows 2000 Network Infrastructure
Take as much time as you need to prepare for the Implementing and Administering Windows 2000 Network Infrastructure exam 70-216. In this self-paced, non-instructor led class you will receive an Implementing and Administering Windows 2000 Network Infrastructure LabSim CD and the Implementing and Administering Windows 2000 Network Infrastructure exam voucher, a $125 value. Study at home or use one of our computer labs to get yourself ready to pass the Microsoft exam 70-216. When enrolling on-line, please call 913-469-2323 to inform us of your enrollment so that we can mail the materials to you.

XCM 8377

70-293: Planning and Maintaining a Microsoft Windows Server 2003 Network Infrastructure
Mapped toward MS exam 70-293, this class will help you gain knowledge and skills necessary to plan and maintain a Windows Server 2003 network infrastructure. Part of the MCSE core exam and MCDBA elective exam requirement. Prerequisite: 70-291: Implementing, Managing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure.

XCM 8378

70-294: Planning, Implementing, Maintaining a MS Windows Server 2003 Active Directory Infrastructure
Mapped toward MS exam 70-294, this class will help you gain the knowledge and
skills to successfully plan, implement, and troubleshoot a Microsoft Windows Server 2003 Active Directory directory service infrastructure. The course focuses on a Windows Server 2003 directory service environment, including forest and domain structure, Domain Name System (DNS), site topology and replication, organizational unit structure and delegation of administration, Group Policy, and user, group, and computer account strategies. Part of the MCSE core exam requirement. Prerequisite: 70-293: Planning and Maintaining a MS Windows Server 2003 Network Infrastructure.

$1,199.00
XCM 8379

70-297: Designing a Microsoft Windows Server 2003 Active Directory & Network Infrastructure
Mapped toward MS exam 70-297, this class will help you gain the knowledge and skills to design a Microsoft Active Directory directory service and network infrastructure for a Microsoft Windows Server 2003 environment. Part of MCSE core exam requirement. Prerequisite: 70-293: Planning and Maintaining a MS Windows Server 2003 Network Infrastructure AND 70-294: Planning, Implementing, and Maintaining a Microsoft Windows Server 2003 Active Directory Infrastructure

$1,199.00
XCM 8392

Test Prep: 70-270 Microsoft Windows XP Professional
Take as much time as you need to prepare for the Windows XP Professional exam 70-270. In this self-paced, noninstructor led class you will receive a Managing a Windows XP Professional LabSim CD and the Windows XP Professional exam voucher, a $125 value. Study at home or use one of our computer labs to get yourself ready to pass the Microsoft exam 70-270. When enrolling on-line, please call 913-469-2323 to inform us of your enrollment so that we can mail the materials to you.

$229.00
XCM 8395

70-290: Managing and Maintaining a MS Windows Server 2003 Environment
Explore the Windows Server 2003 Editions and the concepts and practices of networked systems. Management of hardware, user groups, computer accounts, file access and disk storage are thoroughly explored. Server administration is also covered, including important concepts such as Group Policy, performance monitoring, backups, disaster recovery, and Windows Server 2003 security features. Part of MCSA, MCSE and can be used for an MCDBA core exam requirements. Prerequisite: A+ Certification and Network+ Certification or equivalent knowledge.

$999.00
XCM 8396

Test Prep: 70-218 Managing a Microsoft Windows 2000 Network Environment
Take as much time as you need to prepare for the Managing a Windows 2000 Network Environment exam 70-218. In this self-paced, non-instructor led class you will receive a Managing a Microsoft Windows 2000 Network Environment LabSim CD and the Managing a Microsoft Windows 2000 Network Environment exam voucher, a $125 value. Study at home or use one of our computer labs to get yourself ready to pass the Microsoft exam 70-218. When enrolling on-line, please call 913-469-2323 to inform us of your enrollment so that we can mail the materials to you.

$229.00
XCM 8397
Test Prep: 70-291 Managing a Windows 2003 Network Environment
Take as much time as you need to prepare for the Managing a Windows 2003 Network Environment exam 70-291. In this self-paced, non-instructor led class you will receive a Managing a Windows 2003 Network Environment LabSim CD and the Managing a Windows 2003 Network Environment exam voucher, a $125 value. Study at home or use one of our computer labs to get yourself ready to pass the Microsoft exam 70-291. When enrolling on-line, please call 913-469-2323 to inform us of your enrollment so that we can mail the materials to you.

$229.00
XCM 8398

Test Prep: 70-293 Planning a Windows Server 2003 Network
Take as much time as you need to prepare for the Planning a Windows Server 2003 Network exam 70-293. In this self-paced, non-instructor led class you will receive a Planning a Windows Server 2003 Network LabSim CD and the Planning a Windows Server 2003 Network exam voucher, a $125 value. Study at home or use one of our computer labs to get yourself ready to pass the Microsoft exam 70-293. When enrolling on-line, please call 913-469-2323 to inform us of your enrollment so that we can mail the materials to you.

$229.00
XCM 8399

Test Prep: 70-294 Windows Server 2003 Active Directory
Take as much time as you need to prepare for the Windows Server 2003 Active Directory exam 70-294. In this self-paced, non-instructor led class you will receive a Windows Server 2003 Active Directory LabSim CD and the Windows Server 2003 Active Directory exam voucher, a $125 value. Study at home or use one of our computer labs to get yourself ready to pass the Microsoft exam 70-294. When enrolling on-line, please call 913-469-2323 to inform us of your enrollment so that we can mail the materials to you.

$229.00
XCM 8400

Telecommunications Fundamentals
Explore a wide range of topics that are fundamental to telecommunications. Review the historical background, organizations and institutions that regulate the standards of the industry. Discuss telecommunications both from the perspectives of voice and data communications. The course follows a flow of services, networks, and applications. With this flow, you will study in detail the fundamental concepts of basic telephony, data transmission, and data connectivity. Prerequisite: none

$349.00
XCM 8410

VoIP Fundamentals
Designed to provide students with the fundamentals of Voice over IP (VoIP) networking technology. Concepts covered include an explanation of the national voice and data network, telephony terminology, VoIP protocol analysis and telephony survey techniques. Prerequisite: CCNA or comparable network experience.

$999.00
XCM 8411

Deploying VoIP Solutions
Work with Cisco Call Manager as you cover the basics of Call Manager from installation to configuration to deployment. Prerequisite: VoIP Fundamentals.
.NET Programming for Wireless Devices
The Microsoft .NET Compaq Framework allows developers to use the power of the .NET Framework to build mobile applications. In this 2-day lecture course students learn to utilize Smart Device Extensions and the Microsoft .NET Compact Framework to build mobile applications for a variety of devices as well as applications that connect and disconnect across wireless networks. Prerequisites: C# Fundamentals or Visual Basic.NET.

Oracle PL/SQL Fundamentals
Part of Oracle's 9i SQL exam. Start with an overview of Oracle databases, then move on to working with data. Limit, sort and manipulate Return Data, work with advanced data selection and subqueries. Prerequisite: Oracle SQL or comparable knowledge.

Oracle PL/SQL Advanced
Part of Oracle's 9i SQL exam. As a continuation of the Oracle PL/SQL Fundamentals course, you will create Oracle database objects, manipulate Oracle data, create other database objects, and work with User Access Control. Practice exams are available for self-study. Prerequisite: Oracle PL/SQL Fundamentals.

Oracle DBA Associate Certification Series
Receive the Oracle PL/SQL Fundamentals and Advanced courses, mapped toward Oracle exam #1Z0-001, and the Oracle DBA I Fundamentals and Advanced courses, mapped toward Oracle exam #1Z0-031, at a significant discount. For the student who wants a complete package of Oracle Database instruction. Prerequisite: Experience with Windows OS and database software.

Oracle SQL Fundamentals
Receive a solid understanding of Oracle9i SQL and how to use it effectively. Hands-on activities at the end of each chapter, such as review questions, assignments, and a case project, help to reinforce Oracle9i SQL skills. In association with Oracle SQL Advanced, this class maps to exam 1Z0-007. Prerequisite: Basic understanding of databases, familiarity with MS Access or another database highly recommended.

Oracle 10g New Features for Administrators
An overview of the manageability features and enhancements included in Oracle Database 10g. Although not an exhaustive overview of all new features of the Oracle Database 10g, manageability is definitely the most important focus area of this new release, and probably the most interesting one for database administrators. Prerequisite: Oracle DBA certification or comparable knowledge.
**XCM 8509**

**Oracle SQL Advanced**
Receive a solid understanding of Oracle9i SQL and how to use it effectively. Hands-on activities at the end of each chapter, such as review questions, assignments, and a case project, help to reinforce Oracle9i SQL skills. In association with Oracle SQL Fundamentals, this class maps to exam 1Z0-007. Prerequisite: Oracle SQL Fundamentals.

$349.00

**XCM 8512**

**Oracle DBA I Fundamentals**
Part of Oracle's Database Administrator Certified Associate program. This course covers the beginning components of Oracle's architecture. Work with Oracle Server; create an Oracle database; and manage physical database structures, tablespaces, datafiles, storage structures and undo data. Prerequisite: Oracle PL/SQL Advanced.

$349.00

**XCM 8514**

**Oracle DBA I Advanced**
Part of Oracle's Database Administrator Certified Associate program. As a continuation of the Oracle DBA I Fundamentals course, you will work with managing database objects and database users, then complete three practice exams. Prerequisite: Oracle DBA I Fundamentals.

$349.00

**XCM 8515**

**Oracle DBA Performance Tuning Fundamentals**
Start with the basics of Oracle performance tuning. Receive a quick overview of performance tuning, then move on to tuning memory and tuning storage. In conjunction with Oracle DBA Performance Tuning Advanced, this class prepares students for the Oracle9i Database Performance Tuning certification exam #1Z0-033. Prerequisite: Oracle PL/SQL, Oracle DBA I Fundamentals and Advanced or current Oracle DBA Associates certification.

$349.00

**XCM 8516**

**Oracle DBA Performance Tuning Advanced**
Take the second half of the Oracle Database Performance Tuning certification path. Receive instruction in advanced tuning, tuning tools and application tuning. In conjunction with Oracle DBA Performance Tuning Fundamentals, this class prepares students for the Oracle9i Database Performance Tuning certification exam #1Z0-033. Prerequisite: Oracle PL/SQL, Oracle DBA I Fundamentals and Advanced or current Oracle DBA Associates certification.

$349.00

**XCM 8517**

**Oracle DBA II Fundamentals**
Discover key tools and techniques for Oracle database backup, recovery and network administration, including archiving, user-managed backups, user-managed complete recovery, user-managed incomplete recovery, overview of Recovery Manager, and performing backup operations with Recovery Manager. In conjunction with Oracle DBA II Advanced, this class prepares students for the Oracle certification exam #120-032. Prerequisite: Oracle PL/SQL, Oracle DBA I Fundamentals and Advanced or current Oracle DBA Associates certification.
$349.00
XCM 8518
Oracle DBA II Advanced
Take the second half of the Oracle DBA II certification path. Receive instruction in complete and incomplete recovery with Recovery Manager, recovery catalog, Recovery Manager maintenance, loading and transporting data, network administrations and server-side configuration. In conjunction with Oracle DBA II Fundamentals, this class prepares students for the Oracle certification exam #1Z0-032. Prerequisite: Oracle PL/SQL, Oracle DBA I Fundamentals and Advanced or current Oracle DBA Associates certification.

$349.00
XCM 8540
Oracle DBA Professional Certification Series
Receive instruction in Oracle DBA II Fundamentals and Advanced, mapped toward Oracle exam #1Z0-032, and Oracle DBA Performance Tuning Fundamentals and Advanced mapped toward Oracle exam #1Z0-033 at a significant discount. For the student looking to delve deeper into Oracle or seeking the Oracle DBA Professional certification. Prerequisite: Previous work with Oracle 9i or Oracle DBA I Fundamentals and Advanced.

$1,199.00
XCM 8570
Crystal Reports Fundamentals
You will learn the basics of creating reports using Crystal Reports, including sorting, selecting records, grouping, linking, creating formulas, using Report Expert, and distributing data to other users. Prerequisite: Experience with Windows operating systems. Preferred knowledge: Experience with database applications such as Microsoft Access.

$349.00
XCM 8575
Crystal Reports Advanced
This course is designed for users with a basic knowledge of Crystal Reports. You'll learn to use advanced formulas, formatting and cross-tabs, and how to create and modify dictionary files. Topics include conditional formatting, subreports, parameter fields and Crystal SQL Designer. Prerequisite: Crystal Reports Fundamentals course or equivalent knowledge.

$349.00
XCM 8576
Introduction to Data Mining Techniques
Make the most of your data and gain an understanding of the latest data mining techniques. These tools and techniques can assist with customer relationship management, strategic planning, and the development of more effective marketing campaigns. Prerequisite: None.

$399.00
XCM 8600
Java Programming
This course teaches you the syntax of the Java programming language, object-oriented programming with Java, including graphical-user interfaces, exceptions, file input/output, and developing Java applications and applets. This course uses the Sun curriculum and supports the Sun Java certification. Prerequisite: Knowledge of programming principals.
Java Server Pages (JSP)
Java Server Pages (JSP) builds on the popular Java servlet technology and makes it easier to develop dynamic web applications. This class is for you, even if you’re not a hard-core programmer. Java Server Pages is loaded with clean, portable, well-documented code, providing experts with invaluable tips and insights while giving newcomers all they need to assess and implement their first JSP applications. Prerequisite: Java Programming or equivalent experience.

Java Servlets
Begin with an overview of servlets, including architecture and comparisons to programming alternatives (i.e., .NET). You will explore how to configure the development environment, build and run basic servlets, chain servlets, and create beans and Java Server Pages. Prerequisite: Java Programming and HTML or equivalent knowledge.

JavaScript
Following a review of HTML, you’ll cover JavaScript scripting basics, using variables and functions, validating user-entered data, working with windows and frames, and adding advanced elements to the Web page, including animation, cascading style sheets and cookies. Prerequisite: HTML & Web Page Design, Programming Fundamentals.

SQL: SQL Fundamentals
This course introduces the fundamental concepts of SQL. Work with tables, keys, viewing data and functions. Prerequisite: Access Fundamentals and Access Intermediate.

PHP and MySQL for Dynamic Web Sites
When static HTML pages no longer cut it, you need to step up to dynamic, database-driven sites that represent the future of the Web. Explore the way users work with PHP and MySQL to build dynamic sites using Open Source tools. Work with PHP and MySQL separately before going on to cover security, sessions and cookies, and using additional Web tools. Finish the class by creating sample applications. Prerequisite: HTML and Web Page Design, Access Intermediate or working knowledge of database design.

CCNA Interconnecting Cisco Network Devices (640-811)
The second class mapped toward the Cisco CCNA exam 640-801 and the only class mapped toward the Cisco 640-811 ICND exam. Coverage includes the topics on the new CCNA ICND exam, including switching concepts, IP addressing and subnetting, variable-length subnet masking (VLSM) support and route summarization, Classless Interdomain Routing (CIDR) and Network Address Translation (NAT), point-to-point leased line implementation, Frame Relay configuration, and IP Access Control List (ACL) security. Prerequisite: CCNA
Introduction to Cisco Networking (640-821)

$999.00
XCM 8765

**CCNA Introduction to Cisco Networking (640-821)**

The first class mapped toward the Cisco CCNA exam 640-801 and the only class mapped toward the Cisco 640-821 Intro exam. This class will help you master the topics on the new CCNA Intro exam, including: TCP/IP and OSI networking models, operating Cisco routers and LAN switches, LAN switching basics, VLANs, and Trunking, IP addressing and subnetting, basic router configuration and operation, discovering information about an IP network, dynamic routing protocols, analog modems, PAP/CHAP, DSL and cable. Prerequisite: Understanding of network terminologies and functions.

$899.00
XCM 8831

**MCTS: Implementing and Maintaining SQL Server 2005 Certification Series**

Combine our Implementing and Maintaining SQL Server 2005 classes as you work toward one of Microsoft's newest certifications, 70-431 MCTS: SQL Server 2005 Implementation and Maintenance. Prerequisite: Knowledge of relational databases and database design.

$1,299.00
XCM 8832

**SQL: Implementing SQL Server 2005**

Receive the product knowledge and skills needed to implement a Microsoft SQL Server 2005 database. Focus on how to use SQL Server 2005 product features and tools related to implementing a database. Part one of the Microsoft Certified Technology Specialist (MCTS) coursework. Prerequisite: Knowledge of relational databases and database design.

$699.00
XCM 8833

**SQL: Maintaining SQL Server 2005**

Receive the product knowledge and skills needed to maintain a Microsoft SQL Server 2005 database. Focus on how to use SQL Server 2005 product features and tools related to maintaining a database. Part two of the Microsoft Certified Technology Specialist (MCTS) coursework. Prerequisite: Knowledge of relational databases and database design.

$699.00
XCM 8834

**SQL Server 2005 New Features**

Get full details on all the innovative features and benefits available in SQL Server 2005. Discuss the improved enterprise data management capabilities, developer functions, and business intelligence tools.

$549.00
XCM 8835

**70-228: Administering Microsoft SQL Server 2000**

Mapped to exam 70-228, this course covers how to install Microsoft SQL Server, understand the system architecture and manage services. You'll also learn to develop Transact-SQL queries, plan database integrity, manage security, back up and restore databases, schedule alerts, monitor and tune database performance, implement replication, and employ ODBC extensibility. Meets MCDBA core and
MCSE elective exam requirements. Prerequisite: Networking Fundamentals or Network+ certification, or Windows 2000 Server and Professional experience.

$799.00
XCM 8880

70-229: SQL Server 2000 Database Development
Mapped to exam 70-229, this course covers how to develop applications in a Microsoft SQL Server environment, including data modeling and Microsoft's SQL language. You will learn how to create tables, modify data, use indexes, define views, create triggers and interface with other application tools such as Microsoft Access. Meets MCDBA core and MCSE elective exam requirements. Prerequisite: Knowledge of relational databases and database design.

$799.00
XCM 8925

PMP Test Prep
This course contains topics required for Project Management Institute's (PMI) Project Management Professional (PMP) certification exam. You will cover the application and testing process for PMP as well as key test topics, such as project integration, time, cost, quality, communication and risk. The course will be taught by certified instructors. Prerequisite: industry experience with project management.

$999.00
XCM 8926

Project+ Certification
If you don't qualify for the PMP certification but still want an industry recognized project management certification, then this is the course for you. Explore the full range of skills and concepts needed to plan and implement projects. The project initiation and planning process is covered in-depth, culminating in the creation of a project schedule. Learning how to manage business concerns such as cost and risk is balanced by thorough coverage of best practices in managing people and resources. Discover how to manage change and the steps necessary in closing a project. MeasureUp exam prep software included. Prerequisite: Understanding of Project Management terms and functions.

$699.00
XCM 8927

Project Management Essentials
Project Management is defined as the process of planning, organizing, staffing, directing and controlling the production of a system. This 3-day course uses lecture, discussion and case studies to provide an overview of project management concepts and principles. Topics include the Project Management Framework, Standards, Process Groups, and Knowledge Areas. Specific issues such as project authority, leadership, people skills, and stakeholder communication strategies will also be covered.

$899.00
XCM 8928

Estimating and Managing Project Costs
The successful management of project cost is essential for the success of an organization. Realistic estimates are required to make informed decisions about funding projects. During project execution the estimate provides a basis for tracking and controlling project costs. This one-day course ensures that a comprehensive process is used to estimate project costs with an appropriate level of detail. Technical professionals are presented with financial concepts that will improve communication and teamwork with business and financial managers. Practice in developing estimates, creating estimate forms, and analyzing cost
reports ensure participants leave the course ready to apply what they have learned. Prerequisite: Project Management Essentials or equivalent experience.

$299.00

**XCM 8929**

**Project Risk Management**

Identifying, analyzing, and responding to risk are crucial elements for the successful management of projects. In this one-day course, students will gain an understanding of risk management and the role and elements of a risk management plan (RMP). Other topics include identifying risks, methods and tools for analyzing risks and determining risk impacts, risk prioritization and mitigation techniques, and methods to track, control, and communicate risks throughout the project life cycle. Prerequisite: Project Management Essentials or equivalent knowledge.

$299.00

**XCM 8931**

**Effective Project Scheduling and Control**

Project managers are charged with developing and managing project schedules. On-time delivery is often critical to project success, and also contributes to controlling project cost. This 2-day course ensures students have a foundation of critical path method (CPM) scheduling concepts, and the ability to build a workable project plan. Participants practice developing and analyzing schedules using Microsoft Project as a software tool. Prerequisite: Project Management Essentials or equivalent experience.

$599.00

**XCM 8932**

**Effective Communication for Project Managers**

Internal and external client communication skills are the trademark of successful project personnel. Managing project communications is one of the most important duties of a project manager. This two-day workshop emphasizes the importance of communication skills in building strong partnerships between technical professionals, project managers and their customers. Along with providing models for diagnosing and reducing existing barriers to effective communication, enrollees learn how to match the mode of communication to the message. Through case studies and role-plays, this course builds specific skills for active listening, one-on-one and group meetings, telephone calls, and written communications. This course also helps project managers assess their project communication needs, plan for meeting those needs, and discusses effectively communicating project status and forecasts. Prerequisite: Project Management Essentials or equivalent experience.

$599.00

**XCM 8933**

**Project Leadership and Team Motivation**

Effective leadership and team motivation are critical for the success of any project. In this two-day seminar students are introduced to the elements and methods of leadership in a technical environment as well as the tools and techniques for team development. Students gain an in-depth understanding of procurement and contracting issues with special emphasis on contract management. Other topics include resolving conflict and managing personnel issues, analyzing stages of team development and maximizing team effectiveness. Prerequisite: Project Management Essentials or equivalent experience.

$599.00

**XCM 8934**
Project Quality Management
Project Quality Management focuses on overseeing product quality and ensuring process quality when creating project deliverables. In this one-day course, students master the quality planning process, quality planning tools and metrics, and quality assurance. Prerequisite: Project Management Essentials or equivalent experience.

$299.00

XCM 8935

Project Management Workshop
This course is designed, but not limited to, as a capstone for the Certificate of Project Management. In this 3-day workshop students gain experience and reinforce concepts learned in previous project management seminars by putting their knowledge into practice by simulating managing a real-world project. Prerequisite: Completion or equivalent experience of all other requirements for the Certificate of Project Management.

$899.00

XCM 8937

Performance Management
Performance Management is an integral part of Project Quality and Project Human Resources Management. This 1-day course focuses on effective performance management. Topics include performance diagnosis, evaluation, communication, and reporting. Prerequisite: Project Management Essentials or equivalent experience.

$299.00

XCM 8938

Software Testing
This 2-day workshop defines a process to implement a structured testing environment for all phases of the Systems Development Life Cycle (SDLC). It covers the four techniques of structured testing and the application of those techniques during the phases of the SDLC. Topics include risk assessment, creating functional and structural test plans, test scripts, and test cases. Break-it testing, complexity testing, and basis path testing are also introduced. Prerequisite: Project Management Essentials or equivalent experience.

$599.00

XCM 8939

Project Quality Management
A description is not available for this course.

$299.00

XCM 9001

Web-Based Introduction to Networking
This class explains computer networking basics in terms that you can easily understand, using concepts common to everyday, non-computer experience. A brief introduction to networking history provides context, explaining how networks have become so important to businesses and individuals. The course emphasizes networking fundamentals, explaining the software and hardware that makes networking possible. The course stresses understanding how and why networks work, rather than focusing on memorization of terms and numbers. Note: Please confirm computer requirements before registering for this course and Web registration is not available. After you register, complete the required on-line orientation at www.ed2go.com/jccc.

$104.00
XCM 9004

Web-Based Java for the Absolute Beginner
If you want to learn Java, but don't have any prior programming knowledge, you'll enjoy this course. A Java programmer with more than nine years of real-world corporate programming experience teaches you almost every important Java topic at a leisurely pace, using clear and easy-to-understand language. Practical exercises and examples will help you feel comfortable with the most important Java concepts, including databases and Java Server Pages. Note: Please confirm computer requirements before registering for this course and Web registration is not available. After you register for this course complete the required on-line orientation at www.ed2go.com.

$104.00

XCM 9005

Web-Based Intermediate Networking
Learn real-world applications for the concepts you learned in "Introduction to Networking." You'll gain a full understanding of almost every aspect of networking technology, including hot topics such as virtual private networks, security, and Internet connectivity. Completion of this course and its prerequisite should serve as a springboard for a career in computer networking or training for CCNA certification. Note: Please confirm computer requirements before registering for this course and Web registration is not available. After you register, complete the on-line orientation at www.ed2go.com/jccc.

$104.00

XCM 9006

Web-Based Introduction to PC Troubleshooting
This course takes you through the typical hardware and operating system problems encountered by technicians and teaches you troubleshooting techniques to decipher any problem and gives you the skills to solve them. Note: Please confirm computer requirements before registering for this course and Web registration is not available. After you register, complete the required on-line orientation at www.ed2go.com/jccc.

$104.00

XCM 9008

Web-Based Introduction to Oracle
This course will introduce you to the Structured Query Language (SQL), Oracle's SQL *Plus, and other valuable tools used to develop, manage, and reference an Oracle database. Note: Please check computer requirements before registering for this course and Web registration is not available. After you register, complete the required on-line orientation at www.ed2go.com/jccc.

$104.00

XCM 9009

Web-Based Introduction to Database Development
This course will guide you step-by-step through all the phases of a system development project to guarantee that the resulting project will not only work as it was designed, but also that the design truly responds to user needs. Note: Please confirm computer requirements before registering for this course and Web registration is not available. After you register, complete the required on-line orientation at www.ed2go.com/jccc.

$104.00

XCM 9010

Web-Based Introduction to SQL
Learn the key concepts of Structured Query Language (SQL) and gain a solid working knowledge of this powerful and universal database programming language. You will learn the basic structure of relational databases, how to read and write simple and complex SQL statements, and advanced data manipulation techniques. Note: Please confirm computer requirements before registering for this course and Web registration is not available. After you register, complete the required on-line orientation at www.ed2go.com/jccc.

$104.00

**XCM 9011**

**Web-Based Introduction to Perl Programming**

Learn Perl, a powerful and easy to use scripting language used on PCs, servers, and on the Internet for a wide range of programming problems. Perl is a capable as C, C++, and Java, but is easier to learn and does not require the software development tools and environments required by those languages. Note: Please confirm computer requirements before registering for this course and Web registration is not available. After you register, complete the required on-line orientation at www.ed2go.com/jccc.

$104.00

**XCM 9012**

**Web-Based Creating User Requirements Documents**

Your success as a developer depends almost entirely on your ability to meet or exceed your customer's every expectation. This course will show you, step by step, how to discover and document precisely what your customer wants. You will learn how to gather, manage and document user requirements for any type of project in any industry. Note: Please confirm computer requirements before registering for this course and Web registration is not available. After you register, complete the required on-line orientation at www.ed2go.com/jccc.

$104.00

**XCM 9013**

**Web-Based JavaScript Programming for the Web**

Learn how to spiff up your pages with cool effects like mouseOvers, popUps, and alerts and hot links, scrolling messages, navigation enhancements, basic forms, and more, with JavaScript! Note: Please confirm computer requirements before registering for this course and Web registration is not available. After you register, complete the required on-line orientation at www.ed2go.com/jccc.

$104.00

**XCM 9015**

**Web-Based C++ for the Absolute Beginner**

Create programs for Microsoft Windows using Borland C++ Builder. Learn Object-Oriented techniques, how to create windows and forms, and how to program in a step-by-step nature. This course is ideal whether you are an enthusiast, business person hoping to advance your career, or someone who already knows how to program but wants to move ahead to C++ and Object-Oriented Programming. Note: Confirm computer requirements before registering for this course. Web registration is not available. After you register, complete the required on-line orientation at www.ed2go.com/jccc. C++ Borland software is available through amazon.com for $72.99.

$104.00

**XCM 9016**

**Web-Based Creating a Small Office Network**

Create your own home office or small office network using Windows XP. Slash expenses and improve efficiency by learning how to share printers, Internet connections, drives and documents. You will learn what hardware you will need,
how to configure Windows XP to run your small network, how to configure your
printers and other peripherals and how to manage and maintain your network and
keep it secure. Note: Confirm computer requirements before registering for this
course. Web registration is not available. After you register, complete the
required on-line orientation at www.ed2go.com/jccc.

$104.00
XCM 9017
Web-Based Introduction to Visual Basic .Net
Visual Basic .Net is the most widely used programming language and
development tool for creating Windows applications. The Visual Basic .Net
programming language is easy to learn, and the Visual Basic .Net development
environment enables you to rapidly build Windows applications with little more
than a few clicks of your mouse. Note: Please confirm computer requirements
before registering for this course. Web registration is not available. After you
register, complete the required on-line orientation at www.ed2go.com/jccc.

$104.00
XCM 9018
Web-Based Introduction to VBA
Discover the time saving power of document automation. Cut through the mystery
of object-oriented programming, the Word object model and the logical structure
of the Visual Basic for Applications language by developing a customized
document automation program one lesson at a time. Note: Please confirm
computer requirements before registering for this course and web registration is
not available. After registering, please complete the on-line orientation at

$104.00
XCM 9019
Gain in-demand skills writing sophisticated Windows programs that access and
modify business databases and implement SQL. This course will be ideal if you
are a Visual Basic .NET programmer and you want to upgrade your programming
skills or prepare yourself for a new and exciting line of work. Note: Please confirm
computer requirements before registering for this course and Web registration is
not available. After registration, complete the required on-line orientation at
www.ed2go.com/jccc.

$104.00
XCM 9020
WB: Intermediate Oracle
This course will give you the skills you need to write powerful and flexible
programs using SQL. Learn the building blocks and core features of PL/SQL and
begin building fully functional PL/SQL programs with procedures, packages,
debugging routines, database structures, triggers and cursor processing. Note:
Please confirm computer requirements before registering for this course and Web
registration is not available. After registration, complete the required on-line
orientation at www.ed2go.com/jccc.

$104.00
XCM 9021
Web-Based C# Programming for the Absolute Beginner
Learn the fundamentals of computer programming with the hot new C#
programming language. Note: Please confirm computer requirements before
registering for this course and Web registration is not available. After registration,
complete the required on-line orientation at www.ed2go.com/jccc.
XCM 9022

**WB: Wireless Networking**  
Industry experts show you how wireless networking works, as well as how to plan, deploy and connect to wireless networks.

XCM 9023

**WB: Intro to PC Security**  
Security expert teaches the fundamentals of PC and network security.

XCM 9024

**Web-Based Introduction to PHP & MySQL**  
Gain skills that are highly in demand by learning to build dynamic, data-driven Web sites using two of the most popular open source technologies available: PHP and MySQL. In this result-oriented, hands-on class, you'll master essential programming concepts by designing and building a full-featured Web site powered by PHP and MySQL.  *Note: Please confirm computer requirements before registering for this course. Web registration is not available. After registration, complete the required on-line orientation at www.ed2go.com/jccc.*

XCM 9025

**Web-Based Introduction to FreeHand MX**  
Harness the power of Freehand MX to create stunning logos, brochures, book covers, flyers, Web graphics, and more! Gain an understanding of the dramatic differences between creating designs for onscreen viewing and creating images for printing. Quickly convert your printable artwork into Web-compatible designs. Integrate Freehand with Fireworks, Flash, and Dreamweaver for a total Web development solution. Learn how to publish your illustrations in a variety of formats, including print, Web, Adobe PDF, and Macromedia Flash.  *Note: Please confirm computer requirements before registering for this course. Web registration is not available. After registration, complete the required on-line orientation at www.ed2go.com/jccc.*

XCM 9026

**Web-Based Introduction to Photoshop CS2**  
If you want to work with graphics, Photoshop is the program you will most need to learn. This hands-on, project-oriented course is filled with detailed step-by-step instructions you'll have no trouble following as you learn how to edit photos, create basic paintings, and prepare your images for printing. Discover how to improve photographs by removing flaws, correcting for poor exposure, or adding new elements. You'll even learn how much fun it can be to paint again without the mess to clean up. And, best of all, no prior artistic ability is required to take this course.  *Note: Please confirm computer requirements before registering for this course. Web registration is not available. After registration, complete the required on-line orientation at www.ed2go.com/jccc.*

XCM 9027

**Web-Based Creating a Home Network**  
Create your own home network so that your computers can easily share printers, Internet connections, drives, documents, photos, and other resources. You'll learn what hardware you need, how to configure Windows XP to run your small
network, and how to configure printers and other peripherals. By the end of the
course, you'll know how to manage and maintain your network, and how to keep it
secure.  Note: Please confirm computer requirements before registering for this
course. Web registration is not available. After registration, complete the
required on-line orientation at www.ed2go.com/jccc.

$104.00  
XCM 9028

Web-Based Making Movies with Windows XP
If you have Windows XP, you already have Microsoft Movie Maker, the program
that makes creating professional-quality movies fun and easy. You can edit your
existing video to show only the best parts, and leave out the not-so-good parts.
Add special effects, titles, credits, photos, background music, sound effects, and
more to turn your home video into truly entertaining digital movies. Note: Please
confirm computer requirements before registering for this course. Web registration
is not available. After registration, complete the required on-line orientation at
www.ed2go.com/jccc.

$104.00  
XCM 9029

Web-Based Introduction to Linux
Learn how to navigate through the world of Linux, and use the free office
productivity, multimedia, and Internet software packages provided by Linux.  Also
learn how to use your Linux desktop to access the Internet to browse web sites,
download files, chat with friends, and work with e-mail.  Note: Please confirm
computer requirements before registering for this course. Web registration is not
available. After registration, complete the required on-line orientation at
www.ed2go.com/jccc.

$104.00  
XCM 9030

Web-Based Intermediate C# Programming
Build upon your current knowledge of programming logic by writing Graphical
User Interface applications in the C# programming language. Learn how to write
applications with menus, toolbars, and files, and find out how to interact with
databases and write SQL queries. Note: Please confirm computer requirements
before registering for this course. Web registration is not available. After
registration, complete the on-line orientation at www.ed2go.com/jccc.

$104.00  
XCM 9031

WB: Advanced PC Security
When is hacking legal?  When you use it to secure your own network.  This new
method of hacking, called ethical hacking or white-hat hacking, uses common and
readily available hacking tools and techniques to audit your network so you can
locate and close security holes.  Note: Please confirm computer requirements
before registering for this course, web registration is not available. After
registration, complete the required on-line orientation at www.ed2go.com/jccc.

$104.00  
XCM 9400

Outlook Fundamentals
Outlook is much more than just an e-mail application. Create and use messages,
contacts, appointments, tasks, and other Outlook items as you explore many of
Outlook's rich features. Prerequisite: Knowledge of Windows, keyboard and
mouse.
$159.00  
XCM 9401  
**Outlook Advanced**  
Explore activities such as customizing Outlook and managing the mailbox. Search and filter messages while setting rules. Work with folders, templates and forms, importing and exporting data, public, shared, and offline folders. Prerequisite: Outlook Fundamentals or comparable knowledge.

$159.00  
XCM 9402  
**SharePoint Services: Collaborative Solutions**  
Work with SharePoint to share information and collaborate on projects in an efficient and cost-effective manner. Use Windows SharePoint Services to create virtual team Web sites to enable information sharing and collaboration between project team or department members. Work with InfoPath to create and implement forms to gather and share information. Prerequisite: Proficiency with Windows, keyboard and mouse.

$349.00  
XCM 9403  
**SharePoint Services: Installation and Implementation**  
Expand your SharePoint solution to include a variety of teams with different needs and manage the sites and servers. Create virtual Web-based meeting and document workspaces, as well as administer, maintain, and extend the functionality of a team Web site. Prerequisite: SharePoint Services: Collaborative Solutions.

$349.00  
XCM 9404  
**InfoPath: Creating InfoPath Forms**  
You're a person who has information that needs to be gathered and shared. InfoPath is a product that does just that. Discover how to use InfoPath to gather and share information by creating and implementing XML-based forms. Prerequisite: Advanced Microsoft Office experience, HTML and Web Page Design.

$179.00  
XCM 9405  
**OneNote**  
Capture, organize, and reuse your notes on laptop computer, desktop computers, or Tablet PCs. OneNote gives you one place to store all your notes and the freedom to work with them however you want. It helps you capture information in multiple ways and then organize and use it according to your needs. OneNote combines the freedom and flexibility of paper notes with the efficiency and power of digital organizational tools. Prerequisite: Familiarity with Windows and Microsoft Office applications.

$149.00  
XCM 9406  
**Business Skills for the IT Professional**  
Developing as a Professional is key to your success in business and social situations. Explore what qualities define a professional and what you can do to gain recognition as a true professional in your workplace. Discuss everything from developing good work habits to minding your cubicle manners, as well as networking and scheduling your time effectively. Finally discover new ways to cope with workplace challenges such as defusing conflict and managing pressure.
and stress.

$169.00

XCM 9407

Communications Skills for the IT Professional
Communication is a basic skill that affects all aspects of business life. Our words, gestures, appearance, and body language all "speak" volumes as to our intent, state of mind, and attitude. Learning to recognize these conscious and unconscious cues, as well as paying attention to others’ signals, make us better communicators and leaders.

$169.00

XCM 9450

FrontPage Fundamentals
Learn the basics of FrontPage elements and techniques. Explore Web page creation, page structure and formatting, lists, proofing tools, hyperlinks, images, tables, theme, and HTML code. Discuss how to publish a Web site to the World Wide Web, LAN, or SharePoint Portal Server. Prerequisite: HTML and Web Page Design or comparable knowledge.

$289.00

XCM 9460

FrontPage Advanced
Discover some of the more advanced FrontPage elements and techniques, including designing a Web page by using layout tables and layout tools. Use special effects, templates, style sheets, forms, frames, and data-driven pages to create an interactive, dynamic website. Prerequisite: FrontPage Fundamentals or comparable knowledge.

$289.00

XCM 9463

Dreamweaver: Designing Websites
Discover how to design and build a website as you explore the features and functions in Dreamweaver. From novice to advanced, there is something for everyone in this class. In two days you will move from basic web design to professional-looking websites ready for upload. Prerequisite: HTML and Web Page Design and Cascading Style Sheets, or comparable knowledge.

$289.00

XCM 9469

Dreamweaver: Database Connections
Learn to create web applications that change dynamically. Use Dreamweaver to create and administer database-driven sites, establish server connectivity, and create and manage database records. Receive an in-depth understanding of techniques used to create dynamic web applications. Prerequisite: Dreamweaver: Designing Websites.

$189.00

XCM 9470

Flash Fundamentals
A website can be made to look more inviting with interactive graphics and animations. Discover the basic features and functions of Flash as you create different types of animations and publish them on the web. Prerequisite: Proficiency with Windows, keyboard and mouse.
Flash: Interactive Movies
Discover the advanced features of flash to help you create custom animations. Create simple and complex interactive movies using ActionScript as you explore the advanced features of Flash. Prerequisite: Flash Fundamentals.

Flash: Advanced Techniques
Discover advanced techniques for the creation and manipulation of Flash-based content as you explore in-depth the techniques used to create dynamic web applications using Flash. Prerequisite: Flash: Interactive Movies.

Cascading Style Sheets
Cascading Style Sheets (CSS) is an important component of successful Web design. To create valid HTML 4.0 pages, you should use CSS to control your colors, typography, and layout schemes, rather than the HTML style-oriented tags and attributes. Receive an introduction to the concepts, techniques, properties, and values of CSS in a sequence that reflects a typical “building up” of the design rules. Prerequisite: HTML and Web Page Design.

HTML & Web Page Design
Examine the basic concepts of Hypertext Markup Language (HTML), write source code, place text on the page, format text, and create headings and horizontal rule lines. Display lists, color Web pages, use graphics, add hypertext links and create graphic hyperlinks. Prerequisite: Introduction to the Internet and Introduction to Windows; experience with Windows, keyboard and mouse; or equivalent knowledge.

XML
Put the latest XML technology and standards to work—one step at a time. Discover how to write well-formed and valid XML documents based on W3C specifications. Work with DTDs, Schemas, and Document Object Model. Prerequisite: HTML & Web Page Design or comparable experience.

XML XSLT
Use the features of XSLT and XPath to develop style sheets that convert XML documents to other XML, HTML, or text. Use elements and functions to create style sheet templates and match them with parts of your source document. Prerequisite: XML or comparable knowledge.

Cosmetology Training (XNCO)
**XNCO 114**  
**Cosmetology**  
A description is not available for this course.

$105.00

**XNCO 118**  
**Esthetics - Missouri Hours**  
This course gives esthetics students the additional 100 hours required by the Missouri State Board of Cosmetology in order to sit for the exam.

$1,000.00

**XNCO 119**  
**Esthetics Directed Study**  
A description is not available for this course.

$585.00

**XNCO 120**  
**Nail Tech Directed Study**  
A description is not available for this course.

$400.00

**XNCO 9996**  
**Clinical Cos with Est Lic**  
A description is not available for this course.

$569.60

**XNCO 9997**  
**Cosmetology Instr Training**  
A description is not available for this course.

$300.00

**XNCO 9998**  
**Advanced Nail Tech**  
A description is not available for this course.

$400.00

**XNCO 9999**  
**Cosmetology INStructor Trng**  
A description is not available for this course.

$150.00

**Dance and Exercise (XYD)**

**XYD 1000**  
**Ballroom Dancing, Beginning**  
Have fun learning the steps to traditional ballroom dances, including the foxtrot, waltz, swing and rumba. Shoes worn for class must be non-scuffing, soft-soled
shoes. Leather soled shoes preferred. This class is for couples only. Couples must register together/concurrently; however listed fee is for per person.

$49.00  
**XYD 1005**

**Basic Self-Defense**

You will learn the most simple and basic self-defense techniques and moves that are easy to learn: body positioning, blocking, hand strikes, kneeing and kicking. By practicing these moves in repetition during class, you will develop better confidence and awareness while learning self-protection techniques.

$45.00  
**XYD 1010**

**Ballroom Dancing, Intermediate**

If you've taken "Beginning Ballroom Dancing" at JCCC you are ready to learn the more advanced steps, including the rumba and the cha-cha. Shoes worn for class must be non-scuffing, soft-soled shoes. Leather soled shoes preferred. This class is for couples only; must register together concurrently. The listed fee is for one person.

$49.00  
**XYD 1015**

**Salsa Dance**

Enjoy Salsa dancing which combines exercise with ballroom-dance elegance. Learn different Cuban rhythms as tools for interpreting Salsa, it's footwork and performance. The dances covered include Rumba, Mambo and Cha Cha. Wear comfortable, leather sole shoes, no tennis shoes. You can enroll with a partner or as an individual dancer. Class fees are per person.

$49.00  
**XYD 1030**

**International Folk Dance**

Learn to dance at Greek weddings, Jewish Bar Mitzvahs or step into one of several local folk dance circles that gather weekly to dance, sing, laugh, and burn calories. No partners needed for these circle/line dances that are easy to learn regardless of dance background or ability. Wear comfortable clothing and shoes.

$15.00  
**XYD 1100**

**Lifetime Fitness Center**

JCCC's Lifetime Fitness and Wellness Center is designed to improve fitness levels through physical activity. For this program, all participants must have a fitness assessment. Workout clothes must be worn for your assessment and for center activities. Individuals taking Lifetime Fitness will be required to purchase the Lifetime Fitness and Wellness Manual that is available at the JCCC Bookstore and will need to bring this with them to the initial assessment. (The assessment will take 1 1/2 hours to complete). The center has a cardiovascular circuit, consisting of stationary bicycles, stair climber and hydraulic resistance equipment. Strength training equipment is also available. A professional physical educator is on duty at all times to answer questions. After you enroll, call 913-469-4432 to schedule an assessment with other enrollees. You may then attend the center at your own pace. Note: Hours of operation change somewhat when credit classes are not in session.

$85.00
EMT Training (XNT)

XNT 1000

Streetsense
Every health care professional needs to know much more than clinical medicine. Go beyond what you learned in school! Topics of great concern to savvy medical providers, education and administration of field providers include: effective interpersonal communication, safety on the streets, weaponry and harmful intention, self-awareness, stress and wellness and much more. This class is taught by the author of "Streetsense", covers material pertinent to all medical and emergency providers.

$80.00

XNT 2000

BASIC TRAUMA LIFE SUPPORT

$149.00

XNT 5000

Pediatric Advanced Life Support and Trauma Course
A description is not available for this course.

$210.00

XNT 5010

First Responder/EMT Recertification
Recertification is necessary for professional EMTs. This recertification course will focus on EMS service delivery, infectious disease update, effective assessment practices for the pediatric and geriatric patient along with practical patient assessment labs. This course is approved by the Kansas Board of EMS for 14 hours of CEU credit. Any Kansas Certified First Responder, EMT, EMT I, EMT-D, or MICT can attend. National registry hours may be earned by attending this course. Todd Farley, B.S., KS EMT-IC, is the course coordinator. All instructional staff are Kansas BEMS certified.

$150.00

XNT 5013

EMT "B" Refresher
This is a National Registry and Kansas recertification course for EMT's.

$300.00

XNT 5014

EMT-P Refresher
A description is not available for this course.

$319.00

XNT 5016

EMT Recert/EMT-B Refresher
EMT RECERTIFICATION / EMT-B REFRESHER This course has been approved for Kansas state recertification for EMT and First Responders and has met the EMT-B refresher requirements in Section 1A of the National Registry Renewal Application. (4 sessions)

$300.00
XNT 5017  
CPR Recertification  
This course is designed for those currently certified.  

$39.00  

ESL Adv. and Prof. Courses (XGF)  

XGF 1650  
Conversational English A  
This class is for individuals who have mastered the essentials of English and are striving for fluency in the language. Students will receive advanced practice in conversational and idiomatic usage of English. Emphasis is on conversing in small and large groups about American everyday life and how it compares/differs from other countries and their cultures. Prerequisite: intermediate or advanced knowledge of English. Curriculum changes each session so students are welcome to repeat this course. The textbook, Conversation: English in Everyday Life Volume 2, can be purchased at the JCCC bookstore. Note: This book is also used for Conversational English B.  

$99.00  

XGF 1651  
Conversational English B  
This class is for individuals who have mastered the essentials of English and are striving for fluency in the language. Students will receive advanced practice in conversational and idiomatic usage of English. Emphasis is on conversing in small and large groups about American everyday life and how it compares/differs from other countries and their cultures. Prerequisite: intermediate or advanced knowledge of English. Conversational English A or B can be taken in any order since the topics covered will not be repetitious. The textbook, Conversation: English in Everyday Life, Volume 2, can be purchased at the JCCC bookstore. Note: This book is also used for Conversational English A.  

$99.00  

XGF 1660  
Pronunciation Improvement I  
This class is for individuals who are interested in improving their pronunciation. Increase your self-confidence on the job and in social situations by improving your pronunciation, clarity of speech, use of idioms, slang, quick speech and fluency. The textbook, Pronouncing American English, can be purchased at the JCCC bookstore. Prerequisite: Intermediate or advanced knowledge of English.  

$165.00  

XGF 1661  
Pronunciation Improvement II  
This class is for advanced individuals who are interested in continuing improvements of their pronunciation skills to gain increased self-confidence on the job, in business and in social settings. The class provides additional training in improving pronunciation, clarity of speech, use of idioms, slang, quick speech and fluency. More opportunities are given for presentations and social interactions. The textbook, Pronouncing American English, can be purchased at the JCCC bookstore. Prerequisite: Pronunciation Improvement I or advanced knowledge of English approved by the instructor.  

$165.00  

XGF 1665
Personalized Pronunciation Program

This program provides an individualized pronunciation (correction) refinement method designed especially to assist non-native English speakers to improve their business, professional and social speaking skills. Following an individualized speech analysis, each participant is placed on an individualized learning track, which will be followed throughout this 13-week period. The Compton P-ESL instructional method will be used. Class enrollment is limited to 5 students who have a conversational command of English and a "newspaper" reading level. A serious commitment of daily practice is required. You will be contacted 2 weeks prior to the beginning of class to schedule your individual speech analysis. Instructional materials are included.

$995.00
XGF 1666

Private Tutoring
Private Tutoring $50.00 per hour/ 10 hours

$500.00
XGF 1667

ESL Private Tutoring
Private ESL tutoring, 25 hours

$2,220.00
XGF 1690

ESL Grammar Development I
This course is for non-native English speaking individuals who have a basic working knowledge of English grammar and wish to improve their grammar skills. Topics will include past, present, and future verb tenses and aspects; modals; count and non-count nouns; pronouns; comparisons; and clauses. Students will practice written grammar by doing exercises and short writing assignments; they will practice spoken grammar through oral exercises and partner and group interaction. The textbook, Fundamentals of English Grammar, can be purchased at the JCCC bookstore.

$93.00
XGF 1691

ESL Grammar Development II
This course is for high intermediate to advanced non-native speaking students who are interested in refining their grammar. Verb tenses and aspects, modals, passive voice, gerunds and infinitives, connectives, as well as adjective, adverb and noun clauses will be explored in depth. Students will concentrate on improving both written and spoken grammar. The textbook, Understanding and Using English Grammar, and answer key can be purchased at the JCCC bookstore.

$93.00
XGF 2000

Individual Grammar Writing Rev
Individual Grammar Writing Review tutoring.

$75.00
XGF 2001

Individual Grammar Review
Individual Grammar Review Tutoring
Grammar for ESL - Web Based
This 6-week online course includes in-depth review of English grammar to prepare the ESL student for regular mainstream English classes. Topics include a review of all tenses, the use of modals, the adjective clause, the noun clause, the adverb clause, phrases, count and non-count nouns and some English terms.

$98.00

Education (XNE)

XNE 1096
Divorce-The Impact on Children
Divorce has a tremendous impact on children. You will learn about the consequences of divorce on the children by examining the different developmental stages of children. You will also discuss the role parents play in helping children cope with divorce or conversely how parents can complicate and undermine the children's coping skills.

$21.00

XNE 1115
Baby/Toddler Sign Language
Infants are capable of communicating long before they are able to speak. You will learn why research supports the use of sign language with hearing children, the do's and don'ts of using sign language, the American Sign Language alphabet, basic signs and hand shapes, and common signs that children will be interested in learning and using. You will engage in various hands on activities to learn and practice signing, as well as receive a packet of information containing pictures of the signs for future reference.

$24.00

XNE 1130
Use Art to Help a Child's Development
You will learn how to feed the child's brain and develop their senses through art activities with summer themes. You will discuss how children learn problem solving through art and how manipulative experiences improve the brain. Art supplies are included in the class fee and the class is approved for .2 CEU's.

$45.00

XNE 1135
Cooking with Children
You will learn cooking tips on how to help kids be comfortable in the kitchen. This includes how to combine children's literature and cooking because children learn from hands on activities. You will discuss how cooking can enhance a child's memory, math skills, knowledge of science, language skills and fine motor skills. The course handouts will include a list of children's literature and appropriate recipes. This course is approved for .2 CEUs.

$45.00

XNE 1136
Signs of Illness in Children
You will learn how to identify the signs of illness in children. This course helps you recognize the tell tale signs of illness such as changes in behavior, appearance, fevers, and skin rashes. You will discuss health policies for a classroom or center,
checking for injuries, when to get immediate medical help, care for sudden illness, seizures, first aid tips and indicators of child abuse and neglect. This course is approved for .2 CEUs.

$45.00
XNE 1137

Standard First Aid and Safety
You will learn how to respond to a breathing or cardiac emergency in infants and children. A short demo of CPR for infants and children will be shown. You will discuss how to prevent childhood injuries as well as the four leading causes of childhood deaths and the first aid basics. You will recognize how to care for victims of sudden illness and injuries. After completing this course participants will be able to: recognize injuries, demonstrate how to control bleeding, list general care steps for burns, demonstrate how to care for muscle, joint and bone injuries, and recognize how to care for sudden illnesses. Students will receive an authorization card from The Greater Kansas City Chapter of American Red Cross. This course is approved for .3 CEU's.

$45.00
XNE 1156

Begin With the Brain
Experiences and interactions with the outside world literally shape how the brain develops. You will learn how early experiences have a decisive and long lasting impact on the growing brain. Furthermore, you will gain insight into how you can contribute to providing children with a healthy start.

$15.00
XNE 1160

Summer Fun With Art
Young children’s artwork reflects their own unique response to the world. This informative workshop will focus on the child’s process of art rather than the final product. You will have the opportunity to explore processing-oriented art materials throughout the store!

$15.00
XNE 1165

Sand & Water Play for Infants/Toddlers
When warm weather arrives, children want to play outside. Come to this fun-filled class to explore ways to incorporate sand and water play into your early learning environments. You will have the opportunity to explore sand and water materials throughout the store.

$15.00
XNE 1170

Redirecting Children's Behavior
Do you need to review your discipline techniques? You will learn a developmental approach to discipline that promotes positive guidance techniques that emphasize the adult’s responsibility for guiding children. You will learn how to use modeling, inductive reasoning and reinforcing desired behaviors.

$19.00
XNE 1175

Designing Preschool Environments That Facilitate Learning
Come and learn how to set up environments that support active learning, including the keys to managing learning centers, organization methods for
supporting independent learning, and the principles for developing classrooms
that eliminate common negative behaviors. You will learn how daily schedules
and routines support independent learning.

$15.00
XNE 1180

Every Child Ready to Read @ Your Library
Current research has proven the critical role of parents and caregivers in
developing language and early literacy skills. Come learn appropriate and
enjoyable activities to promote the varying stages of development and strategies
for getting the most out of the time spent sharing books and stories.

$19.00
XNE 1185

The Creative Curriculum - Blocks
Do you have a Block Area? Come to this informative class based upon "The
Creative Curriculum" to discover first-hand the value of block play and how to
support children’s development and learning while they are constructing and
creating.

$19.00
XNE 1190

Holiday Art
In this course you will focus on the child’s process of art rather than the final
product. Holiday "process oriented" hands-on art projects will be presented. Come
ready to dig in and have some fun! You will also have the opportunity to explore
process-oriented art materials throughout the store!

$19.00
XNE 1195

An Introduction to Room Arrangements
Since your children learn best through their interactions with objects, materials,
and people, the physical environment serves as the setting for learning. This
course will show you how to create a developmentally appropriate room
arrangement.

$19.00
XNE 1200

Building Classroom Community
One of the hallmarks of a quality early childhood program is that it gives children
and families a sense of belonging. In this course you will learn techniques that
encourage children to care for one another. You will discover ways to create a
peaceful community of learners and learn activities that help each child feel like
an important member of the class.

$19.00
XNE 1205

Learning to Read and Write: DAP for 3-5 year olds
You will learn how three to five-year-old children view literacy, hear about the
stages of literacy development, and discover ways to go beyond the ABC’s to
promote literacy development in the preschool classroom.

$19.00
XNE 1210
1, 2, 3 - It is More Than Counting
The class will focus on how young children learn basic mathematical knowledge and problem-solving skills. Come discover what kinds of materials to include in the classroom environment, as well as what kinds of games challenge children's thinking. You will learn how to respond to children's mistakes and turn them into opportunities for children to construct their own knowledge.

$19.00
XNE 1215
How Young Children Think and Learn
Come explore how children's ways of thinking and learning are different from adults. You will have the opportunity to analyze the kinds of activities you do with young children and evaluate sample activities according to ways young children learn and think.

$19.00
XNE 1220
Anger Management and the Effective Use of Power
Anger is a normal emotion. Anger management techniques, including "REACH" and "RETHINK", will be discussed to help you understand anger and ways to help children deal with their feelings. .

$19.00
XNE 1225
Managing Stress
Come to this class to learn how to recognize factors that contribute to stress. You will practice relaxation activities and set personal goals for well-being. You will also discover ways to help children cope with stress.

$19.00
XNE 1230
Communicating Effectively with Parents
Communication is critical to the parent-child-caregiver/teacher relationship. During this course you will learn strategies for communicating with parents to exchange information, share messages, and deal with problems.

$19.00
XNE 1235
Caring for Children of Non-Traditional Families
Children may come from families consisting of biological parents, step parents, adopted parents, or a combination. You will discuss various family structures and their effects on child care. You will also learn strategies for keeping communication consistent with all parties.

$19.00
XNE 1240
A Teacher's Most Powerful Tool
The relationship you develop with the families of the children in your care is your most powerful tool. You will have the opportunity to look at your philosophy of teaching as it relates to parent-teacher relationships. Come to this class to learn practical ways to develop good relationships and create shared power and mutual respect with families.

$19.00
XNE 1245

The Creative Curriculum - Dramatic Play
Dramatic play is central to children's healthy development and learning. You will discover ways to set up and equip the Dramatic Play area so that it becomes a stage where children can enter and immediately take on a role and pretend. You will have a hands-on experience investigating props throughout the store.

$19.00

XNE 1250

Setting the Stage...Creative Learning Centers
Children learn through active exploration of their environment. By "setting the stage" with learning centers filled with developmentally appropriate materials, you create a role in which children explore opportunities within their environment. Come learn how to make your environment inviting and engaging. You will have a hands-on opportunity to investigate props throughout the store.

$19.00

XNE 1255

Spring Art: Process vs. Product
In this course, you will focus on the child's process of art rather than the final product. Spring time "process-oriented" hands-on art projects will be presented. Come ready to dig in and have some fun! You will also have the opportunity to explore process-oriented art materials throughout the store.

$19.00

XNE 1260

Let's Play Outdoors
Outdoors allows children to become aware of important sensory aspects - to play without rigid direction. If set-up correctly, the outdoor environment leads children to be risk-takers and confident in their abilities. Come explore ways to add richness and imagination to your outdoor play experiences. You will have a hand-on experience investigating props throughout the store.

$19.00

XNE 1265

Social and Emotional Stages in Lesson Planning
This class will focus on the tangible relationship between Piaget's cognitive learning theory and Erickson's 8 stages of emotional intelligence. How do children learn? What materials do they need to learn? Why do they do what they do at certain ages? Do not be afraid of a class on theory, this will be very hands on. Learn what materials to have in the classroom and how to create lesson plans that truly reflect the needs of children. You will also focus on age appropriate behaviors and how to help children through "challenging behaviors."

$19.00

XNE 1270

Documentation and Assessment - How to Effectively Use Them
What does documentation really mean? Why do we create lesson plans? Why do we collect samples of children's work and how do we decide what to collect? Yes, there really is a method to our "madness." This class will guide you in the four domains of learning, the milestones that occur, what you should collect and what these samples might look like.

$19.00

XNE 1275
Communication Techniques for Adults
Communication techniques for all people can be challenging, but it is especially so when you work with someone for 8-10 hours a day. You will focus on how to talk to be heard, how to listen, how to problem solve and how to create a work environment that works for everyone. Creating a team is not easy but through reflective listening and problem solving solid teaching teams can emerge. You will have the opportunity to role play and problem solve real situations.

$19.00
XNE 1280

Observation, Documentation and Child Portfolios
Do you need help developing or organizing a system to complete child observations, documentations and portfolios? Come to this class to learn different ways to accomplish all of this as well as find a way that works best for you in your classroom. You will also learn ways to communicate observations through Family/Teacher Conferences.

$19.00
XNE 1285

Early Childhood Programs and Family Relations
Where are the parents, grandparents, aunts or uncles? In this class you will learn techniques to better incorporate families into your early learning program. Research supports the fact that if a family is involved in a child’s education, the child will be more successful. You will also learn ways to keep lines of communication open.

$19.00
XNE 1290

What is Professionalism in the Early Childhood Environment?
As the field of Early Learning is striving to become recognized as a profession in the general community, we as educators must look at what we are doing and how we are presenting ourselves to children, parents and families, and community members. Come to this class to create or further develop your own personal philosophy of early learning based on Child Development and Developmentally Appropriate Practices. Additionally, we will discuss the implementation of the NAEYC Code of Ethics to decision making in the classroom as well as in everyday life.

$19.00
XNE 1295

Types of Attachment and Implications for the Classroom Teacher
Knowing and understanding the different types of child/guardian attachments is essential for creating a safe and secure environment. You will learn the different types of attachment and how to adapt and adjust to meet the different needs of your children.

$19.00
XNE 1300

Making Brain Connections with Music
Come learn how singing, dancing, laughing and learning go “hand in hand” in the early learning environment. You will learn information on brain research and the importance of music in a young child’s life. Come prepared to have fun!

$19.00
XNE 1305
The Learning Power of Laughter
You will experience joyous activities to develop important skills in young children through humor, laughter and fun. Come explore creative and fun activities that will enrich any classroom experience.

$19.00
XNE 1310
Portfolio: A Picture of a Child's Development
Learn how to give parents a graphic look at their child's development. Learn how to develop portfolios that give parents a picture of their child's development over an entire year. Develop procedures for developing children's portfolios that help you manage your time. See samples of preschool portfolio entries and design ways to begin this process. Learn the skills you will need to make this process important and interesting to preschool children.

$19.00
XNE 1315
Listen to the Children: Strategies for Dealing with Superhero Play
Learn why super-hero play fascinates and motivates children. Discover appropriate strategies for respecting and supporting children's make-believe play. Explore ways to extend this play beyond mere imitation of current super heroes.

$19.00
XNE 1320
Literacy Begins at Birth
Literacy, like all language, begins in infancy when adults speak, sing and read to their newborn babies. These early experiences build a foundation for a child's ability to read and write. This class will offer you ideas on how to enhance the early childhood classroom to promote language and literacy development.

$19.00
XNE 1500
Child Development Associate (CDA) Credential
You will acquire the knowledge and skills to become a professional teacher of young children in an early education center or as a family care provider. This course is designed as an intensive integration of study and professional preparation experience that emphasizes the application of knowledge to practice. At the end of the course you will be prepared for your assessment to earn a professional CDA credential that is recognized by early childhood educators nationwide.

$199.00
Fire Science (XNF)
XNF 1000
Essentials of Firefighting
This course fulfills the requirements of the National Fire Protection Association competencies identified in NFPA 1001 at the Firefighting I level and follows the IFSTA manual. Successful completion of the course results in eligibility for the KU/FST Firefighter examination. Firefighter I exam fee is an additional $60 paid directly to K.U. Evidence of completion of EMS First Responder or equivalent EMS training is also required to take the KU/FST Firefighter I exam. The fee for the Firefighter I exam is paid directly to the University of Kansas. The exam is administered at the college as a final exam. (6 Saturday labs) Instructor: Benjamin
XNF 1010
Hazardous Materials Awareness Level
This course is intended for those persons who, in the course of their normal duties, are likely to witness or discover the release or potential release of a hazardous substance. It fulfills the requirements identified in (OSHA) 29 CFR Part 1910.120 and (EPA) 40 CFR Part 311, for hazardous materials responders at the awareness level. Instructor: Benjamin

XNF 1020
Hazardous Materials Operations Level
This course is intended for those persons who are part of the initial response to releases or potential releases of hazardous substances for the purpose of protecting people, property and the environment from the effects of (OSHA) 29 CFR Part 1910.120 and (EPA) 40 CFR Part 311, for hazardous materials responders at the operations level. Persons enrolling in this course shall have successfully completed the Hazardous Materials Awareness Level course or equivalent, documented, training. Instructor: Benjamin

XNF 1030
Building Construction: Noncombustible, Fire Resistive Construction
This course describes the characteristics of noncombustible and fire-resistive construction as they pertain to the fire service. The primary emphasis is on improving the fire officer's knowledge of building construction to ensure fire fighter safety. The course will improve the fire officer's ability to predict the reaction of a building to fire. Participants completing this course will receive a National Fire Academy certificate. This course is part of a three course series that addresses building construction for fire suppression. Students successfully completing all three courses may be eligible to receive college credit. Students interested in acquiring college credit should contact the Humanities and Social Sciences Division at JCCC.

XNF 1040
Building Construction: Principles of Wood and Ordinary Construction
This course describes the characteristics of wood and ordinary construction as they pertain to the fire service. The primary emphasis is on improving the fire officer's knowledge of building construction to ensure fire fighter safety. The course will improve the fire officer's ability to predict the reaction of a building to fire. Participants completing this course will receive a National Fire Academy certificate. This course is part of a three course series that addresses building construction for fire suppression. Students successfully completing all three courses may be eligible to receive college credit. Students interested in acquiring college credit should contact the Humanities and Social Sciences Division at JCCC.

XNF 1050
Building Construction: Principles of Construction for Garden and High Rise Buildings
This course describes the characteristics of garden apartments and high rise buildings as they pertain to the fire service. The primary emphasis is on improving the fire officer's knowledge of building construction to ensure fire fighter safety. The course will improve the fire officer's ability to predict the reaction of a building to fire. This course is part of a three course series that addresses building construction for fire suppression. Students successfully completing all three
courses may be eligible to receive college credit. Students interested in acquiring college credit should contact the Humanities and Social Sciences Division at JCCC.

$33.00
XNF 2000
Introduction to Fire Services
A description is not available for this course.

$59.00
XNF 3000
Candidate Physical Ability Test (CPAT)
The Candidate Physical Ability Test (CPAT) is designed to identify people who are physically able to perform essential job tasks at fire scenes. Successful CPAT participants will be given a certification verifying successful completion of the test. This certificate will facilitate the hiring process for departments requiring successful CPAT completion. A photo I.D. will be required to take the CPAT. (2 sessions)

$75.00
XNF 3001
Fire Service Entrance Examination
The Fire Service Entrance Exam is offered to people seeking positions with fire departments or any entity that requires completion of the FSEE before submitting an application. The FSEE is a standardized test for assessing a person's basic aptitude for the position of firefighter. The test does not assess a person's knowledge of the fire service or firefighting. People who take the test will receive a certificate indicating their score. Bring two #2 pencils with clean erasers. Calculators are not permitted. A study guide is available for purchase at the JCCC Bookstore.

$45.00
XNF 3002
CPAT + Fire Service Entrance Exam
This section includes the Candidate Physical Ability Test (CPAT) and the Fire Service Entrance Exam (FSEE).

$99.00
Food and Wine (XPE)
XPE 1013
Holiday Hors d'oeuvres
This class will feature hors d'oeuvres for the holidays that have been collected throughout 2006 and not featured in a JCCC cooking class before. Since traveling leads to tasting new and interesting foods, we have new ideas for this class.

$35.00
XPE 1026
Easy and Healthy Gourmet
You'll want to taste Lemon Baked Pork Chops, Vegetable Couscous or quick Black Bean Chili with home baked corn chips. Try a great new green salad with pears and topped with low fat honey pear vinaigrette and indulge in a lower calorie carrot cake.
Cooking for the Family/Freezer

Are you wasting time and money by rushing to the store at the last minute for dinner? Are you ordering take-out because you’re not in the mood to cook? Or could your budget use a little extra spending money? Learn how to cook main dishes once a month, and stock your freezer with yummy and healthy main dishes that your family will love and that will save you time and money. In the first session, you’ll learn how to plan a monthly menu, as well as some simple recipes and great shopping tips. The second session will be centered on cooking and storage techniques and sampling actual freezer cuisines. Freezer cooking may be done on your own, or with family and friends to really save time and money!

Hot and Cold Hors d’oeuvres

New hors d’oeuvre class (with wine suggestions from Nancy, a wine expert at Lucas Liquors). We’ll prepare Sausage Nut Strudel, a refreshing mushroom dish, Shrimp-in-a-Pickle, White House Souffleed Crackers, Olive Cheese and Onion Layered Cheese Loaf, Mariachi Drumsticks, and Apple Cream Cheese Torte Cookies.

Hors d’Oeuvres

These delicious hors d’oeuvres are being used over and over again. We’ll prepare Brie Tartlets, Chicken Pate with Nuts, a great dip, Greek Quesadias with Tzatziki and more, ending with Chocolate Rum Pecan Squares. Fee includes food costs.

Wine Tasting Seminars

Come tantalize your palate with some wonderful and varied wines. The first session will cover red and white wines from France’s Rhone region. The second session will be a selection of Washington state merlots. The class is open to both novice and seasoned wine-tasters. Participants must be at least 21 years of age. Fee includes wine and food costs.

Wine Tasting Essentials

Increase your knowledge of wines and enjoy wine tasting! We’ll focus on history, production and service, and the process of reading the labels of California, French, Italian, German and other imported wines to determine the best value. Participants must be at least 21 years of age. The fee includes wine and food costs.

Cooking With the Wok

A Wok is a wonderfully fuel efficient, versatile cooking pan and we’ll use it to stir fry, deep fry, steam and smoke food from many countries. Pasta Prima Vera, Sweet and Sour Fish, Thai Beef Chiang Mai, Asian Chicken Salad, American Denver Omelet and Old English Carrot Pudding will demonstrate how useful a wok is.
$35.00  
XPE 1091  
**More Italian Cooking**  
Bruschetta with Pecorino and Walnuts, White Bean and Tuna Salad, Ribollita (Soup), Pork Loin Braised in Milk, Polenta with Mushroom Sauce and Cantucci with Vin Santo. These dishes are some of the favorites tasted while exploring Italy from Rome to the South and back to Tuscany.

$35.00  
XPE 1093  
**A Trip to Tuscany**  
Enjoy the atmosphere and flavors of the Tuscan Countryside while learning to make these wonderful dishes. Crostini, Papa al Pomodoro (Tomato Bread Soup) Gnocchi in Cream Sauce from Sienna, Tuscan Lemon Roasted Chicken, Green Beans with Olives and Bruttì ma Buoni. (Florentine cookies called Ugly but Good)

$35.00  
XPE 1117  
**Slow Cookers for the Fast Family**  
Still trying to figure out how to cook dinner when you’re never ever home? Come learn great slow cooker recipes that will help the evening pace slow down and bring the family back to the table.

$20.00  
XPE 1119  
**Made by Me! (Parent/Child Class)**  
Register along with your favorite little one for an evening of sharing and giving. We will learn how to make all kinds of fun gifts for the young and the young at heart. Have fun learning new ideas kids can create in the kitchen to give to their friends and family. The October class has a Halloween theme and the December class has a holiday theme. Children must be age four or older and accompanied by an adult age 18 or older. The class fee for adults is $21 and for children, $8.

$21.00  
XPE 1121  
**Making Chocolate Candy**  
Learn how easy it is to make your own holiday chocolates! Learn how to make Caramel & Chocolate Apples, Turtles, Molded Chocolates, Dipped Fruit, Chocolate Boxes, etc. Watch a demonstration full of great ideas and sample all the chocolates! Fee includes food costs.

$25.00  
XPE 1122  
**Cookie Decorating with Royal Icing**  
Fun hands-on class teaches you how to decorate beautiful sugar cookies using Royal Icing. Students decorate six to eight cookies which they get to take home (or eat!). Handout features recipes and tips for working with Royal Icing. Fee includes food costs.

$19.00  
XPE 1123  
**Decorate a Gingerbread House (Parent/Child class)**  
Create a beautiful, edible holiday treasure. Your gingerbread house is assembled
and ready to decorate with a wide variety of candies, sprinkles and sparkles. Gingerbread house, $15, is available from instructor. Children must be age 6 or older and registered with an adult. Fee for adults is $12 and for children, $8. Fee includes food costs.

$12.00
XPE 1137

Thanksgiving in October
Traditional foods for one of our favorite holidays along with an October-fest theme. Come, learn and sample. Turkey Roasted in a Pastry Crust, Potato Dumplings, Red Cabbage with Apples and Cranberries and Pumpkin Baked Alaska are some of the dishes we’ll prepare.

$35.00
XPE 1141

A Trip to Sorrento
Pizza with homemade fresh Mozzarella and Southern Italian Tomato Sauce; Scialatelli alla Boscaiola, a quickly made flavored fresh pasta with vegetable and porcini sauce; Eggplant Parmesan, Cauliflower Positano Style and Limoncello from scratch, used in a cake...What a delicious way to experience the flavors from a trip to Southern Italy and the Amalfi coast.

$35.00
XPE 1217

Cook for a Day - Eat for a Month
Do you find yourself in "crisis mode" at dinner time? Save time, money and your sanity with tasty and nutritious meals made in advance and frozen for later use. Learn to adapt this simple method to any dietary or scheduling needs for any size of family. Fee includes workbook with forms and recipes. This is not a cooking class.

$35.00
XPE 1225

Mexican Gourmet
Wonderful food from the resort regions of Ixtapa and Zihuatanejo and other favorite Mexican style dishes for entertaining. We’ll learn to make Shrimp in Tamarind Sauce, Pescado a la Veracruzan (fish), Super Stack Omelets Ranchero, Enchilada Suiza and Sopaipillas with Pineapple.

$35.00
XPE 1240

Whole Grain Bread 101
Do you love homemade bread, but lack the time and/or skills to make it yourself? It’s fast and easy when you learn this speedy method of making up to 6 loaves in just 75-90 minutes, with ideas for 20+ variations from the same recipe. With a focus on 100% whole wheat bread made by machine, topics include: whole grains and milling fresh flour, the 4 secrets of perfect bread dough, the mystery of gluten, baking for profit and more, followed by a taste test. Fee covers most food costs. Optional baking supplies available from instructor.

$35.00
XPE 1261

Country Italian Style
Come learn how to cook pizza on the grill along with a wide variety of toppings. We’ll prepare Beef Braised in red Wine served with Baked Gnocchi and Insalata
Mista. For the grand finale, Tiramisu Four Layer Chocolate Cake. The recipe is loaded with calories but we’ll make a fantastic version cutting the calories and fat by half. Fee includes food costs.

$35.00
XPE 1262

A Celebration of Autumn
A very quick preparation makes a great Pumpkin Green Chili soup to serve with Texas Corn Bread. Two new ideas for pork are Pork Chops with Red Wine and Dried Fruits and Sauteed Pork with Rosemary Mustard Sauce; both are delicious with Pumpkin Biscuits with Orange Honey Butter. Perfect for the season, Broiled Apple Slices with Maple Calvado’s Sauce over ice cream. Fee includes food costs.

$35.00
XPE 1263

Easy Hors d'Oeuvres and a "Brilliant" Idea for Left-Over Turkey
Come and learn to make six new Hors d'Oeuvres for entertaining any time of the year. We'll prepare Cheese Roll-ups, Herbed Ricotta Bundles, Egg Cornucopias, and Crostini with three toppings. Our Turkey, Rice and Artichoke Casserole could easily take its place on the holiday buffet table and a smooth and easy Chocolate Fondue with fruit is a great ending for any party. The class will include some interesting wine suggestions. Fee includes food costs.

$35.00
XPE 1421

Fireside Feast
A cozy fire and good food make winter eating fun. This class includes recipes to cook over the fire or just serve before the fire: Spiked and Spiced Hot Cider, Ember Roasted Vegetables and Potatoes with a Special Sauce, Beef Braised in Brandy Broth, Roasted Spices for the Salad and Apple Pie Quesadias. Fee includes food costs.

$35.00
XPE 1422

Heart Healthy for Your Sweetheart
Here is a Valentine Menu that is delicious, colorful and lower in fat and calories: Smoked Salmon Hearts, Italian Beef Medallions, Green Salad with Beets and Apple-raspberry Vinaigrette, Vegetables and Tangy Cranberry Ice. Fee includes food costs.

$35.00
XPE 1423

Great Main Course Sandwiches
Make dinner easier or use these ideas for best picnics ever: Spinach/Sausage Stuffed Bread, Muffaletta, Rolled Lavosh or Tortilla Wraps, Homemade Wheat Pita with Salad Filling and a fabulous dessert to serve for spring and summer special occasions. Fee includes food costs.

$35.00
XPE 1424

Spring Dinner Party or Easter Menu
A menu from around the world makes a festive spring dinner: Roasted Orange Herb Game Hens, Composed Greek Salad, Risotto Prima Vera, Cheese Popovers and Italian Easter Pie. Fee includes food costs.
Summer Food from Argentina and Chili
These are some of the best foods served to us in private homes and on farms and
ranches on a recent trip to South America: Crab Pie, Empanadas, Fresh
Vegetable Salads, Grilled Steak with Chimichurie Sauce, Dulce de Leche. Fee
includes food costs.

Secrets of the Caterer
Do you love to cook and plan parties? Then start your own catering business and
make money doing what you love! In this course, you learn how to become an
effective and reputable caterer. Learn the business and the tricks of the trade,
including many delicious catering recipes.

Wine Appreciation for Beginners
Master the secrets of wine appreciation and never be intimidated by a wine
steward again. Learn how to order wine, taste it properly, and how to choose the
single variety that will best complement your meal.

Foreign Language (XPL)

Ciao Italia I (Italian for Travelers)
Learn basic Italian phrases and conversation with an emphasis on practical usage
while traveling. Topics will include how to get around, eating out, shopping, culture
and regions of Italy. Note: The textbook, "Italian in 10 Minutes a Day", can be
purchased in the JCCC bookstore; you will also need to purchase an Italian
dictionary.

Ciao Italia II
In this continuation of "Ciao Italia I", you will learn new, practical conversational
skills as well as reading and writing. Additional verb tenses will be introduced. The
class will also emphasize traveling in Italy. Prerequisite: Ciao Italia I or other
introductory Italian class. The textbook, "Italian in 10 Minutes a Day", can be
purchased in the JCCC bookstore; you will also need an Italian dictionary.

Ciao Italia III
This class is a continuation of "Ciao Italia II". Emphasis will be on improving
reading, writing and speaking skills. The textbook, "Italian in 10 Minutes a Day",
can be purchased at the JCCC bookstore. An Italian dictionary is required.
French for Travelers
This class will teach "survival" French for travelers in France. Learn handy phrases to use when greeting people, shopping, ordering a meal or asking directions. You'll also learn about French culture. The textbook, Getting by in French, can be purchased at the JCCC bookstore.

$79.00  
XPL 1105  
French I, Beginning
This course is an introduction to the fundamentals of the French language taught in an informal and fun environment. It is based on the study and use of basic French grammar, vocabulary development, word pronunciation, and common phrases. Students will be able to read, write, and speak in simple French sentences and learn about the culture. The textbook, "French in 10 Minutes a Day", can be purchased at the JCCC bookstore.

$79.00  
XPL 1110  
French II, Beginning
This follow-up course continues to focus on the study and use of basic French grammar, vocabulary development, word pronunciation and common phrases. The textbook, "French in 10 Minutes a Day", can be purchased at the JCCC bookstore.

$89.00  
XPL 1115  
French for Travelers IV
This class is a continuation of French for Travelers III. Emphasis will be placed on conversational French related to travel. Students will learn how to use the past and future verb tenses. Students will also learn about French culture. Prerequisite: French for Travelers III or a previous French class. The textbook, "French Without the Fuss", can be purchased at the JCCC bookstore.

$89.00  
XPL 1116  
Conversational French I
Increase your vocabulary and improve pronunciation in this conversational French class conducted entirely in French. This course is designed for students with a basic understanding of the fundamentals of French. You'll learn about French culture while improving your French.

$79.00  
XPL 1200  
German for Travelers
Learn to ask directions, order meals, figure money and conduct basic conversations. An informal conversational approach will be used. The textbook, "German Phrase Book and Dictionary" can be purchased at the JCCC bookstore.

$99.00  
XPL 1300  
Japanese, Conversational I
Learn the basic elements of spoken and some written Japanese (as time allows) in an informal and fun environment. The textbook can be purchased in the JCCC bookstore.
Japanese, Conversational II
Continue the development of skills learned in Conversational Japanese I with an emphasis on conversation and writing. Prerequisite: Conversational Japanese I or equivalent. The textbook can be purchased in the JCCC bookstore.

Beginning Chinese
Learn the basic elements of spoken and some written Chinese in an informal and fun environment. The course will focus on vocabulary development, word pronunciation and common phrases. The course will stress the practical and everyday use of Chinese. The book, "Chinese In 10 Minutes A Day", can be purchased at the JCCC bookstore.

Beginning Chinese II
Continuation of Beginning Chinese. The course will focus on improving pronunciations, using common expressions and developing conversations. Students will learn basic strokes of Chinese characters and recognize a list of frequently used words. Students also will learn Chinese etiquette and cultures. The book, "Chinese in 10 Minutes a Day", can be purchased at the JCCC bookstore.

Russian for Beginners I
In this course, students will master the Russian alphabet. They will learn to read, write and speak basic Russian. The book, "Russian in 10 Minutes a Day", can be purchased at the JCCC bookstore.

Russian for Beginners II
Continue to improve your use of Russian through this sequential course. Emphasis will be on improving reading, writing and speaking Russian and increasing basic vocabulary in order to understand and communicate. The book," Russian in 10 Minutes a Day", can be purchased at the JCCC bookstore.

Spanish, Conversational I
If you understand the fundamentals of Spanish, this informal, fun course will build your conversational skills. Conducted in Spanish, this course is designed to improve your vocabulary and pronunciation rapidly, while learning about Spanish cultures. The textbook can be purchased at the JCCC bookstore.

Spanish, Conversational II
This course is designed to increase the student's ability to express themselves
orally in Spanish. Vocabulary and grammatical structure will be emphasized. The instructor will present class discussion topics relevant to everyday life and current event situations. The textbook, The Big Red Book of Spanish Verbs, can be purchased at the JCCC bookstore. You will also need to purchase a Spanish/English dictionary.

$99.00

**XPL 1511**

**Spanish, Beginning I**

This course is based on the study and use of basic Spanish grammar. You will learn to read, write and speak basic Spanish. Word pronunciation and common phrases will be stressed. Students will be encouraged to participate in class. The textbook, "Spanish in 10 Minutes a Day" can be purchased at the JCCC bookstore.

$99.00

**XPL 1512**

**Spanish, Beginning II**

This course, a continuation of Beginning Spanish I, will focus on the study and use of basic Spanish grammar, vocabulary development, word pronunciation and common phrases. The textbook, "Spanish in 10 Minutes a Day", is available at the JCCC bookstore.

$99.00

**XPL 1515**

**Spanish, Intermediate**

This course will foster your ability to communicate basic information about yourself, others and your daily activities, focusing on pertinent grammatical topics, vocabulary and cultural information. You will begin to create orally with the language and rely less on memorized material.

$79.00

**XPL 1525**

**Spanish, Conversational III**

Solo En Espanol. Join the group of advanced students who are interested in practicing and improving their skills in speaking Spanish. This is an advanced Spanish class. The textbook, The Big Red Book of Spanish Verbs, can be purchased at the JCCC bookstore. You will also need to purchase The American Heritage Spanish/English dictionary.

$99.00

**XPL 1550**

**Swedish for Travelers**

This class will teach all you need to know to make traveling in Sweden an enjoyable experience. Learn basic phrases to help you shop, order a meal and ask directions. Explore sightseeing possibilities to assist you in getting the most out of your Scandinavian experience.

$79.00

**XPL 1551**

**Swedish I**

Join us to learn the basics of speaking this muscial Scandinavian language. We will learn the Swedish alphabet, basic grammatical constructions, and reading simple phrases, all in a fun, easy-going manner from a native born Swede.
Swedish II
Continuation of our study of the Swedish Language with emphasis on simple conversations and reading, applying grammar in a fun practical manner. Students' current interest regarding travel, communicating with relatives, and practical help in researching a family tree will be covered. Increasing vocabulary will be a goal.

Arabic for Travelers
Learn basic spoken Arabic phrases for getting by as tourists or business travelers. Topics will include basics for getting by, money matters, at the hotel, eating out, shopping, meeting people and other general information. You will also learn about Egyptian culture. The textbooks, "Now You're Talking Arabic In No Time" and "Getting By In Arabic", can be purchased at the JCCC bookstore.

Conversational Arabic for Travelers
This course, a continuation of Arabic for Travelers, will focus on increasing the student's ability to express themselves orally in Arabic by teaching conversational skills useful for traveling to the Middle East. Prerequisite: Arabic for Travelers. The textbooks, Vestpocket Arabic and Colloquial Arabic of Egypt, can be purchased at the JCCC bookstore.

Beginning Modern Standard Arabic I
In this fast-paced, low-pressure course students will master the Arabic alphabet, learn many conversational expressions, as well as the Arabic case and verbal measure systems. Students will be able to read, write, and speak in simple Arabic sentences. This course will be taught by a native English speaker who was a former Arabic government translator. The book, "Arabic in 10 minutes a Day" can be purchased at the JCCC bookstore.

Beginning Modern Standard Arabic II
In this follow-up course to Beginning Arabic I, students will continue to learn conversational expressions, while furthering their understanding and usage of the Arabic case and verbal measure systems. Students will be able to read, write, and speak in simple Arabic sentences. This course will be taught by a native English speaker who was a former Arabic government translator. The book, "Arabic in 10 minutes a Day" can be purchased at the JCCC bookstore.

Spanish for the Workplace
Here's your chance to learn conversational Spanish for use on the job and in the workplace. Spanish will be taught using the same methods that native speakers use to learn language through memorization and structured practice. You will learn the correct pronunciation of Spanish words using the phonetic encoding system. No prior knowledge of Spanish necessary.
$149.00
XPL 4002
Spanish for the Workplace II
Here's your chance to learn conversational Spanish for use on the job and in the workplace. Spanish will be taught using the same methods that native speakers use to learn language through memorization and structured practice. You will learn the correct pronunciation of Spanish words using the phonetic encoding system. No prior knowledge of Spanish necessary. The textbook, "Spanish In Ten Minutes A Day" is available in the JCCC bookstore.

$139.00
XPL 5000
Speed Spanish I, Web-Based
Imagine yourself speaking, reading and writing Spanish. Now you can with Speed Spanish! This course is designed for anyone who wants to learn Spanish pronto. You'll learn six easy recipes for gluing Spanish words together to form sentences. In no time at all, you'll be able to go into any Spanish-speaking situation and converse in Spanish. Que Bueno!

$98.00
XPL 5001
Speed Spanish II, Web-Based
Gain comfort in Spanish-speaking situations by learning even more clever new recipes you can put to immediate use. Our Speed Spanish courses are unlike any other Spanish classes you may have ever taken. When you've completed both this course and its predecessor, you'll be well on your way to fluency.

$98.00
XPL 5003
Speed Spanish III, Web-Based
Master your ability to speak, understand, and read Spanish by taking the final installment in our unique three-part Speed Spanish learning series. In this advanced-level course, you'll learn the final six recipes that will serve as templates to help you create any Spanish sentence you want.

$98.00
XPL 5005
French, Beginning Conversational
Learn common French words, phrases and cultural tips for both leisure and business. This course makes pronunciation simple, with phonetic spellings for every word and phrase you'll need to learn. Audio is included so you'll be able to hear and practice the language with little more than a click of your mouse!

$98.00
XPL 5006
Instant Italian
This dynamic course makes learning Italian fun and surprisingly easy. You'll learn how to ask directions, book a room, order a meal, and much more - in Italian! Phonetic spellings of each word and phrase make mastering pronunciation a breeze. The course audio even lets you hear and practice Italian with a simple click of your mouse. Cultural notes are included throughout the course to help you better understand the Italian people and their way of life.
XPL 5014
Braille Beginning Transcription, Web-Based
Prepare for a rewarding career as a Braille transcriber by learning to write and read the tactual language of the blind. You’ll learn the history of Braille, and different ways of producing the Braille English alphabet, Braille numbers, Braille punctuation, and more. You’ll also learn about employment opportunities for Braille Transcribers.

$98.00

XPL 5015
Braille Intermediate Transcription, Web-Based
Learn Literary Braille and prepare for the Library of Congress Braille Transcriber’s Certification exam. Explore the 63 contractions that make up Grade II Braille. These contractions are used to increase your efficiency with Braille by decreasing the amount of space required to produce words or parts of words. After you complete this course, you’ll be comfortable with reading and brailing the complete Literary Braille Code. You’ll also learn about employment opportunities for those who are proficient at producing Braille.

$98.00

Health Care Professions (XNC)

XNC 1000
Care of the Client Experiencing Depression
This course, available in JCCC’s open lab, provides comprehensive information about depression, including mental status examination and empathic communication. RNs, LPNs, LMHTs and social workers will earn 3 contact hours for completing this course. ACHAs will earn 3 (RC) hours.

$36.00

XNC 1001
Care of the Client Experiencing Mania
This course, offered in JCCC’s open lab, presents a comprehensive overview including client assessment, nursing diagnoses and nursing interventions. RNs, LPNs, LMHTs and social workers will earn 2 contact hours for completing this course. ACHAs will earn 2 (RC) hours.

$24.00

XNC 1010
Managing the Side Effects of Chemotherapy (Part I)
A description is not available for this course.

$22.00

XNC 1011
Managing the Side Effects of Chemotherapy (Part II)
A description is not available for this course.

$22.00

XNC 1020
Hemodynamics - Part I
The Heart and How It Works
$11.00
XNC 1021
The Pulmonary Artery Catheter
The Pulmonary Artery Catheter

$11.00
XNC 1022
The Ups and Downs of Hemodynamics
The Ups and Downs of Hemodynamics

$11.00
XNC 1030
Those Fabulous Nitrates
A description is not available for this course.

$22.00
XNC 1040
Tuberculosis: Identification, Prevention and Control
This course, available in JCCC labs, provides comprehensive information about tuberculosis, including implications for identification, prevention and control. It also differentiates between TB infection and TB disease. RNs, LPNs and LMHTs will earn 2 contact hours for completing this course. ACHAs will earn 2 (RC) hours.

$24.00
XNC 1050
Immunization: You Call The Shots (Part I)
Presented as a computer-based module in JCCC’s open lab, this program is the first of a two-part series. It presents a comprehensive overview of currently accepted immunization practices. RNs, LPNs and LMHTs will earn 4 contact hours for completing this course.

$48.00
XNC 1051
Immunization: You Call The Shots (Part II)
Presented as a computer-based module in JCCC’s open lab, this program is the second of a two-part series. It provides a continuation of currently accepted immunization practices. RNs, LPNs and LMHTs will earn 2 contact hours for completing this course.

$24.00
XNC 1052
Developing Multicultural Sensitivity
This course, available in JCCC’s open lab describes cultural beliefs and family relationships of selected cultural groups, including Native Americans and African Americans. RNs, LPNs and LMHTs will earn 2 contact hours for completing this course. ACHAs will earn 2 (RC) hours.

$40.00
XNC 1054
Care of the Client with Borderline Personality Disorder
This course, available in JCCC's open lab, describes dysfunctional behaviors frequently seen in clients with borderline personality disorder and presents interventions, behaviors, and discharge planning. RNs, LPNs, LMHTs and social workers will earn 1 contact hour for completing this course. ACHAs will earn 1 (RC) hour.

$12.00

XNC 1055

Clinical Delegation and Nursing Roles
This course, available in JCCC's open lab, focuses on safely and effectively giving and taking delegation, and determining the supervision needed for delegated tasks. RNs, LPNs and LMHTs will earn 3 contact hours for completing this course. ACHAs will earn 3 (A) hours.

$36.00

XNC 1056

Infection Control
This course, available in JCCC's open lab, discusses the chain of infection, mechanisms of transmission and signs and symptoms of various types of infection, as well as the differences between Universal and Standard precautions. RNs and LPNs will earn 3 contact hours for completing this course. ACHAs will earn 3 (A) hours.

$36.00

XNC 1057

Pain Management
This course, available in JCCC labs, provides a comprehensive survey of the research, neurophysiology, assessment and management of pain as it relates to children, older adults and patients at the end of life. RNs, LPNs and LMHTs will earn 7 contact hours for completing this course. ACHAs will earn 7 (RC) hours.

$84.00

XNC 1058

Ethical Care: Exploring Common Issues
Presented as a computer based module available in JCCC's open lab, this course discusses important issues related to providing ethical care, including advance directives, confidentiality, ethical decision making and a patient's rights. RNs, LPNs and LMHTs will earn 3 contact hours for completing this course.

$36.00

XNC 1059

Breastfeeding: A Model for Patient Education
This course, available in JCCC's open lab, describes the benefits of breastfeeding and information related to establishing and maintaining the breast milk supply. RNs and LPNs will earn 3.5 contact hours for completing this course.

$42.00

XNC 1060

Avoiding Medication Errors: Geriatric
This program, available in JCCC's open lab, discusses common causes of polypharmacy in the elderly and identifies nursing precautions for the elderly. RNs, LPNs and LMHTs will earn 1.5 contact hours for completing this course. ACHAs will earn 1.5 (RC) hours.

$18.00
**XNC 1061**

**Information Management: Internet Basics**

This course, available in JCCC labs, explains how the Internet works and how it can benefit healthcare professionals, including information about e-mail, ListServes, netiquette and searching the World Wide Web. RNs, LPNs and LMHTs will earn 1.5 contact hours for completing this course. ACHAs will earn 1.5 (E) hours.

$18.00

**XNC 1799**

**Building Consensus**

This course centers on the dynamics of groups coming to agreement and the importance of having everyone’s commitment. Participants learn seven techniques for making clear, high quality decisions that ensure the buy-in and commitment of staff. RNs, LPNs, LMHTs, social workers and counselors will earn 3 contact hours for attending this course. ACHAs will earn 3 (A) hours.

$36.00

**XNC 2003**

**Using the Myers-Briggs to Enhance Self-Awareness and**

A description is not available for this course.

$54.00

**XNC 2008**

**Conflict: Yours, Mine, Ours and Theirs (Updated)**

Learn why people fight and what they fight about. Examine the conditions that create conflict, its value as well as the losses it creates. Look at your own approaches to conflict and how you deal with the approaches others take when there is disagreement. Learn specific steps for resolving conflict. This course has been updated. RNs, LPNs, LMHTs, social workers, counselors, psychologists, dentists, and dental hygienists will earn 6 contact hours for attending this workshop. ACHAs will earn 6 (A) hours. Approval is pending for other health professionals.

$54.00

**XNC 2009**

**Understanding Essentials of Chronic Wound Management**

A description is not available for this course.

$24.00

**XNC 2010**

**The EKG: Advancing Your Knowledge Beyond M.I.**

A description is not available for this course.

$48.00

**XNC 2014**

**Managing Conflict and the Stress of Change**

A description is not available for this course.

$48.00

**XNC 2015**

**Marriage: Theory and Therapy (An In-depth Seminar for Clinicians)**
What contributes to a well-functioning marriage? How professionals answer this question influences their clinical work with a marital problem. Most theories about marriage focus on the individuals or the couple. Bowen family systems theory broadens the lens by seeing marriage embedded in the interlocking triangles of the family emotional unit. This seminar presents how marital functioning is influenced by anxiety, differentiation of self, emotional cutoff, and nuclear and multigenerational processes. The seminar explores the clinician’s challenge to translate theory into therapy. Common marital issues addressed include distance, conflict, polarization, affairs, focusing on the other, and reciprocal functioning. Social workers, psychologists, counselors and mental health clinical nurse specialists will earn 7 contact hours for completing this course.

$85.00
XNC 2017

Therapeutic Massage in the Health Care Setting
A description is not available for this course.

$36.00
XNC 2018

Hospital to Home Care: Facilitating Successful Transition
A description is not available for this course.

$24.00
XNC 2019

Who Pays for Home Care?
A description is not available for this course.

$24.00
XNC 2020

Health Care Reform: What Does It Mean for Your Career?
A description is not available for this course.

$48.00
XNC 2021

Collaboration in Mental Illness Services: Relapse to Recovery
Recovery

$56.00
XNC 2022

Dealing With Upset People
Upset people make everyone’s job more difficult. This workshop can help make your job easier by showing you skills and techniques for handling these people. You will examine ways to develop your own personal style, how to identify your role in the organization, effective methods for handling complaints and conditions that breed anger and conflict. RNs, LPNs and LMHTs will earn 6 contact hours for attending this workshop. Kansas ACHAs will earn 6 (A) hours. Approval is pending for other health professionals.

$54.00
XNC 2023

Managing Our Differences: From Anger to Action
A description is not available for this course.


$54.00

XNC 2024

**Communicating with Sensitivity in Health Care**

In the midst of the hectic pace of a health professional's day, patients or clients frequently feel rushed and even misunderstood. How can we be more empathic, "share the moment" with patients who hurt, are alone and losing hope? What roadblocks hinder our efforts to truly listen and understand. Ten sensitive communication techniques and strategies calm and reassure clients in the midst of crisis and uncertainty. In this workshop, you will explore methods of reducing misunderstanding, improving concentration and demonstrating credibility while sharing the emotional moment of your patient or client. RNs, LPNs, LMHTs, social workers, counselors and clergy will earn 6 contact hours for attending this workshop. Approval is pending for other health disciplines.

$54.00

XNC 2025

**Asthma Through the Lifespan: The Role of the Caregiver**

A description is not available for this course.

$48.00

XNC 2026

**Managing Skin Problems in Young Women**

A description is not available for this course.

$24.00

XNC 2027

**Gene Therapy in Cancer Treatment: An Exciting Tomorrow The Mary Ann Thompson Memorial Cancer Seminar**

A description is not available for this course.

$35.00

XNC 2028

**Pharmacotherapeutic Treatment Strategies for Common Psychiatric Disorders**

A description is not available for this course.

$24.00

XNC 2029

**Update on TB: A Kansas Perspective**

A description is not available for this course.

$27.00

XNC 2030

**Ethics in the Trenches: Issues at the Bedside**

A description is not available for this course.

$56.00

XNC 2031

**Update in Maternity Care**

Update in Maternity Care
$24.00  
**XNC 2032**  
*Summertime Skin*  
A description is not available for this course.

$24.00  
**XNC 2033**  
*Role of Differentiation of Self and Chronic Anxiety in Symptom Development*  
A description is not available for this course.

$70.00  
**XNC 2034**  
*Women and Anger*  
A description is not available for this course.

$48.00  
**XNC 2035**  
*Using Pattern Management to Improve Diabetes Care: Transitioning from Hospital to Home*  
A description is not available for this course.

$54.00  
**XNC 2036**  
*Marketing Yourself in Healthcare*  
A description is not available for this course.

$24.00  
**XNC 2037**  
*Psychosocial Aspects of Aging*  
Explore the psychosocial needs of older adults---their basic personality types and how they develop as well as how they respond if their needs are not met. RNs and LMHTs will earn 3 contact hours for attending this workshop. Kansas ACHAs will earn 3 (RC) hours.

$27.00  
**XNC 2038**  
*Pharmacology Update: Cardiovascular Drugs*  
This practical presentation emphasizes the latest cardiovascular agents and include the use, important side effects, and nursing implications of the most commonly used cardiovascular drugs. RNs and LPNs will earn 6 contact hours for attending this workshop. ACHAs will earn 6 (RC) hours.

$72.00  
**XNC 2039**  
*"Unlayering" the Issues of Abuse*  
A description is not available for this course.
Self Managed Work Teams: Practical Strategies for Health Professionals
A description is not available for this course.

$54.00
XNC 2041
Building Internal Strength Through Mindful Stress Reduction Part I
A description is not available for this course.

$54.00
XNC 2042
Building Internal Strength Through Mindful Stress Reduction Part II
A description is not available for this course.

$54.00
XNC 2043
Fluids and Electrolytes in Health and Illness
A description is not available for this course.

$54.00
XNC 2044
Lighting Your Candle and Fanning Its Flame
A description is not available for this course.

$54.00
XNC 2045
Skin Cancer Epidemic: Prevention, Treatment, Restoration and Renewal
A description is not available for this course.

$27.00
XNC 2046
Stroke: Diagnosis and Assessment in the 90s
A description is not available for this course.

$36.00
XNC 2047
Antimicrobial Resistance: Implications and Infection Control Strategies
A description is not available for this course.

$27.00
XNC 2048
Polishing Your Clinical Assessment Skills (Part I)
A description is not available for this course.

$72.00
XNC 2049
Death and the Family
A description is not available for this course.
$27.00  
XNC 2050  
Polishing Your Clinical Assessment Skills (Part II)  
A description is not available for this course.

$72.00  
XNC 2051  
Infusion Therapy in Home Care  
A description is not available for this course.

$27.00  
XNC 2052  
Healing Life's Hurts  
A description is not available for this course.

$54.00  
XNC 2053  
ENT Problems: Trends and New Treatment Options  
A description is not available for this course.

$27.00  
XNC 2054  
Taking Care of Your Customer, Taking Care of Yourself  
A description is not available for this course.

$54.00  
XNC 2055  
Updating Your Knowledge of HIV/AIDS  
A description is not available for this course.

$27.00  
XNC 2056  
Practical Interpretation of 12-Lead EKG  
This course includes a study of components of 12-lead EKG interpretation. A knowledge of EKG waveforms (P-QRS-T) is required. RNs and LPNs will earn 6 contact hours for attending this workshop.

$72.00  
XNC 2057  
Clinical Ethics in Your Practice  
A description is not available for this course.

$99.00  
XNC 2058  
Enhancing Your Personal and Professional Skills  
A description is not available for this course.

$79.00
XNC 2060
Managing Criticism and Complaints in the Workplace
A description is not available for this course.
$54.00

XNC 2061
Cutaneous Manifestations of Systemic Disease
A description is not available for this course.
$27.00

XNC 2062
Health Assessment of the Elderly Individual
A description is not available for this course.
$27.00

XNC 2063
Best of Two Worlds: Technology and Health Care
A description is not available for this course.
$54.00

XNC 2064
ICD-9-CM Guidelines for Coding Body Systems
A description is not available for this course.
$72.00

XNC 2065
Healing Powers of Music: Practical Applications for Health Professionals
A description is not available for this course.
$54.00

XNC 2066
Enhancing Your Negotiation Skills
A description is not available for this course.
$54.00

XNC 2067
Process of Intimacy
A description is not available for this course.
$27.00

XNC 2068
Emergency Cardiac Care: Present Status and New Directions
A description is not available for this course.
$39.00
Continuous Quality Improvement: Making It Work In Health Care

$27.00
XNC 2070
Therapeutic Touch: The Krieger Method
A description is not available for this course.

$54.00
XNC 2071
Adult Children and Aging Parents
A description is not available for this course.

$27.00
XNC 2072
Myers Briggs Assessment
A description is not available for this course.

$54.00
XNC 2073
Chronically Ill Child: Strengthening Relationships and Coping Skills
A description is not available for this course.

$27.00
XNC 2075
Difficult Diagnoses: Borderline Personality Disorder and Dissociative Identity Disorder
A description is not available for this course.

$36.00
XNC 2076
Dermatologic Problems of Menopause
A description is not available for this course.

$27.00
XNC 2077
Bowen Family System Theory
A description is not available for this course.

$75.00
XNC 2078
Health Prof Appreciation Day
A description is not available for this course.

$35.00
XNC 2080
Children and Obesity: Strategies for Change
$27.00  
**XNC 2081**  
**Issues in Lactation Management: Breast Feeding Really Matters**  
A description is not available for this course.

$54.00  
**XNC 2082**  
**Dynamic Communication: Communication for Individual and Organizational Success**  
A description is not available for this course.

$54.00  
**XNC 2083**  
**Neurofibromatosis: Understanding Its Impact on Individuals and Families**  
A description is not available for this course.

$50.00  
**XNC 2084**  
**Tactful Toughness: How to Confront Effectively**  
You will learn how to handle "tough" situations with firmness, with self respect and with respect for others. You will explore win/win situations when you need to take an unpopular or dissenting position in professional situations and in most areas of your personal life too. RNs, LPNs and LMHTs will earn 6 contact hours for attending this workshop. Kansas ACHAs will earn 6 (A) hours. Approval is pending for other health professionals.

$54.00  
**XNC 2085**  
**Misery of Allergy: Update on Allergies and Anaphylaxis**  
A description is not available for this course.

$54.00  
**XNC 2086**  
**Serum Laboratory: From Classroom to Practice**  
A description is not available for this course.

$54.00  
**XNC 2087**  
**Dermatologic Drugs in the Primary Care Setting: An Update**  
A description is not available for this course.

$27.00  
**XNC 2088**  
**Ethics 101: Clinical Applications**  
A description is not available for this course.
XNC 2089
Nurturing the Mother to Be: Perinatal Massage
A description is not available for this course.

$36.00

XNC 2090
Hypertension: The Silent Threat
A description is not available for this course.

$27.00

XNC 2091
Congestive Heart Failure: Meeting the Challenge
A description is not available for this course.

$27.00

XNC 2092
Intimacy: The Process
A description is not available for this course.

$27.00

XNC 2093
Family Issues in the New Millennium
In recent years, health care professionals have become increasingly aware of the importance of families to individual and societal well being. This seminar is designed to assist mental health and other health care professionals in understanding significant issues affecting today’s families. Four separate, yet interrelated, topics will be explored—couple survival, dilemmas of the blended family, facing America’s anti-child sentiment as a family unit and maintaining relationships when applying discipline. Meaningful interventions for each of these problematic family components will be provided. RNs, LPNs and LMHTs will earn 6 contact hours for attending this workshop. Approval is pending for other health care professionals.

$54.00

XNC 2094
Connecting for Kids: What's Killing Our Kids?
A description is not available for this course.

$50.00

XNC 2095
SEMINAR AT SEA AND WESTERN CARIBBEAN CRUISE
Using the Myers-Briggs to Understand Yourself and Others Using Your Creativity to Solve Problems and Increase Opportunity Discovering What Motivates You Today

$200.00

XNC 2096
Family Transitions and Symptom Development
A description is not available for this course.

$27.00
XNC 2097
Fear of Abandonment: The Core of Codependence
A description is not available for this course.

$54.00
XNC 2098
Caring and Loving in Helping Relationships
A description is not available for this course.

$27.00
XNC 2099
Attention Deficit Hyperactivity Disorder in Children and Adolescents: Diagnosis, Assessment and Treatment

$75.00
XNC 2100
Holistic Medical Practices: Blending Traditional and Alternative Medicine
Alternative Medicine

$27.00
XNC 2101
Understanding Your Myers-Briggs Type: Enhancing
Self-Awareness and Relationships This informative workshop provides an opportunity for you to use the Myers-Briggs Indicator, the most widely used personality instrument in the world, to clarify your individual personality style and understand how it expresses itself in your behavior and relationships. The Myers-Briggs is nonjudgmental, affirming of individual strengths and differences, practical, results-oriented and growth producing. In this workshop, you will take the indicator, learn the basic concepts of this personality theory and enjoy the fun and insights gained from seeing your own and other styles in “action.” RNs, LPNs, and LMFTs will earn 6 contact hours for attending this workshop. Approval is pending for other health care professionals.

$54.00
XNC 2102
Hemodynamic Monitoring
A description is not available for this course.

$63.00
XNC 2103
Loving and Caring in an Impersonal World
A description is not available for this course.

$54.00
XNC 2104
Geriatric Nutrition
A description is not available for this course.

$27.00
XNC 2105
Crucial Role of the One-in-the-Middle: Hazards and Opportunities

Opportunities

$54.00
XNC 2106
Continuous Quality Improvement in Today's Health Care Workplace

Workplace

$54.00
XNC 2107
Childhood Depression: Recognition and Treatment
A description is not available for this course.

$24.00
XNC 2108
Women's Health Issues
A description is not available for this course.

$36.00
XNC 2109
Assertiveness: New Perspectives
A description is not available for this course.

$36.00
XNC 2110
Reducing Relocation Stress in the Older Adult
A description is not available for this course.

$27.00
XNC 2111
Real Life Ethics
A description is not available for this course.

$32.00
XNC 2112
Sexuality and Relationship Issues in Chronic and/or Serious Illness
A description is not available for this course.

$54.00
XNC 2113
Behavioral Management of Alzheimer's Disease
A description is not available for this course.

$27.00
XNC 2114
Teen Suicide: Risk and Crisis Among Today's Youth
A description is not available for this course.
$54.00
XNC 2115
Superachievers, Type E's and Coping Strategies
A description is not available for this course.

$36.00
XNC 2116
Bouncing Back: Increasing Personal and Professional
Resiliency Every organization, group and individual encounters reversals, unwanted changes and potential threats. Why do some survive, even thrive, while others do not? This program focuses on the capacity to bounce back, adapt, maintain, develop and grow. You will learn how to distinguish between productive and unproductive stress, the role of anxiety, characteristics of resiliency, and how to strengthen your personal and professional resiliency. RNs, LPNs and LMHTs will earn 6 contact hours for attending this workshop. Approval is pending for other health professionals.

$54.00
XNC 2117
Brain Dominance: Communication and Creativity
An exciting learning experience that increases awareness about relationships and how they are affected by your brain profile. You will take the Hermann Brain Dominance Profile prior to the workshop. Workshop activities will be based on the individual brain profiles of the participants. RNs, LPNs, LMHTs, social workers, counselors and dental hygienists will earn 6 contact hours. ACHAs will earn 6 (E) hours. Approval is pending for OTs, PTs and dietitians.

$72.00
XNC 2118
Coming Up for Air: Stress Management for Health Professionals
A description is not available for this course.

$54.00
XNC 2119
Nine Faces of Pain: Using the Enneagram to Understand Resistance
A description is not available for this course.

$54.00
XNC 2120
Adolescent Sexuality
A description is not available for this course.

$36.00
XNC 2121
Chiropractic: Understanding Its Role in Health Care
A description is not available for this course.

$27.00
XNC 2122
Spirituality and the Road to Meaning
A description is not available for this course.
$63.00
XNC 2123
Through the Looking Glass: Managed Care from the Inside Out
A description is not available for this course.

$63.00
XNC 2124
Eating Disorders: Exploring Family Issues
A description is not available for this course.

$54.00
XNC 2125
Ending Abuse: Living Free
A description is not available for this course.

$45.00
XNC 2201
Elder Abuse: Recognition and Intervention
This workshop will explore strategies for prevention and protection and discuss the legal responsibilities to elders when abuse is suspected. RNs, LPNs and LMHTs will earn 3 contact hours for attending this workshop. Approval is pending for other health professionals. Kansas ACHAs will earn 3 (RC) hours.

$36.00
XNC 2202
Sinusitis: What's New in Treatment and Care
A description is not available for this course.

$27.00
XNC 2203
EKG: Advancing Your Knowledge Beyond MI
A description is not available for this course.

$54.00
XNC 2204
Abnormal & Dysfunctional Uterine Bleeding
A description is not available for this course.

$27.00
XNC 2206
Transition Trauma and the Older Adult
A description is not available for this course.

$27.00
XNC 2207
Violence in the Family
A description is not available for this course.
$27.00
XNC 2208
AIDS: Present & Future
A description is not available for this course.

$27.00
XNC 2209
Shifting to a Managed Care Paradigm: Change and Choice
A description is not available for this course.

$63.00
XNC 2210
Grief and the Wounded Family
A description is not available for this course.

$54.00
XNC 2211
Pain Assessment and Intervention
A description is not available for this course.

$27.00
XNC 2212
Cultural Diversity: Values, Issues and Strategies
A description is not available for this course.

$54.00
XNC 2213
Patient Focused Leadership: It's Now or Never
A description is not available for this course.

$54.00
XNC 2214
Advances in Wound Care
A description is not available for this course.

$27.00
XNC 2215
Depression, Anxiety and Panic Disorder: Effective Management in Primary Care
A description is not available for this course.

$27.00
XNC 2216
Nursing Assessment of Patients with Cardiac Disorders
A description is not available for this course.
XNC 2217
Music, Laughter and Tears: The Scale of Life
A description is not available for this course.

$54.00
XNC 2218
Shame and Guilt: What's Healthy and What's Not
A description is not available for this course.

$54.00
XNC 2219
Exploring Alternative Approaches to Health Care
A description is not available for this course.

$27.00
XNC 2220
Congestive Heart Failure: Advances in Treatment and Care
A description is not available for this course.

$27.00
XNC 2221
Updating Your Knowledge of Diabetes
A description is not available for this course.

$54.00
XNC 2222
Abnormal Lab Values: Painting the Fluid Balance Picture
A description is not available for this course.

$27.00
XNC 2223
Special Considerations in the Health Care of the Older Adult
A description is not available for this course.

$27.00
XNC 2224
Mid-Life Transitions: Management and Health Promotion
A description is not available for this course.

$36.00
XNC 2225
Mindfulness Based Stress Management
A description is not available for this course.

$54.00
XNC 2226
Infidelity: Theory and Therapy
Nothing stirs up an emotional storm in a marriage and a family like an affair. This program will present Bowen family systems theory as a framework for understanding infidelity and focus on the clinical work with the individual or couple. RNs, social workers, psychologists and counselors will earn 7 hours for attending this workshop.

$79.00
XNC 2227

Hats 'R Us Using Critical and Creative Thinking Skills to Improve Problem Solving
A description is not available for this course.

$54.00
XNC 2228

Common Areas of Nursing Negligence: Avoiding Legal Problems in Clinical Practice
A description is not available for this course.

$27.00
XNC 2229

Nursing in the New Millennium: Legal Issues in Telecommunications
A description is not available for this course.

$27.00
XNC 2230

Medicare Reimbursement: Essentials of Today's Payment System
A description is not available for this course.

$27.00
XNC 2231

Non-surgical Options for Skin Rejuvenation: Where the Hype Ends and the Science Begins
A description is not available for this course.

$27.00
XNC 2232

Fibromyalgia: Effective Evaluation and Care
A description is not available for this course.

$27.00
XNC 2233

Pediatric Assessment: Birth Through
Adolescence We often hear "children are not just small adults." This is the challenge of pediatric assessment - tailoring your approach to the appropriate developmental level of the child. In addition, you must consider the whole family, interacting with both client and parents. This program will address the individual from birth through adolescence, including history taking, physical examination and developmental assessment. Communication with parents and with children of various ages will be included. RNs and LPNs will earn 3 contact hours for attending this workshop.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>XNC 2234</td>
<td>Lines That Divide Us</td>
<td>A description is not available for this course.</td>
<td>$27.00</td>
</tr>
<tr>
<td>XNC 2235</td>
<td>You Are Only As Happy As Your Unhappiest Child</td>
<td>A description is not available for this course.</td>
<td>$27.00</td>
</tr>
<tr>
<td>XNC 2236</td>
<td>Expand and Apply Your Knowledge of the Myers Briggs Personality Type Indicator</td>
<td>A description is not available for this course.</td>
<td>$54.00</td>
</tr>
<tr>
<td>XNC 2237</td>
<td>Hot Topics in Bioethics</td>
<td>A description is not available for this course.</td>
<td>$36.00</td>
</tr>
<tr>
<td>XNC 2238</td>
<td>Say What You Mean: Dealing with Anger Effectively</td>
<td>A description is not available for this course.</td>
<td>$54.00</td>
</tr>
<tr>
<td>XNC 2239</td>
<td>Using Case Management Principles Throughout the Nursing Continuum</td>
<td>A description is not available for this course.</td>
<td>$54.00</td>
</tr>
<tr>
<td>XNC 2240</td>
<td>Body, Mind and Soul: HIV/AIDS Approaching the Year 2000</td>
<td>A description is not available for this course.</td>
<td>$54.00</td>
</tr>
<tr>
<td>XNC 2241</td>
<td>Enhancing Your Patient Teaching Skills</td>
<td>A description is not available for this course.</td>
<td>$54.00</td>
</tr>
<tr>
<td>XNC 2242</td>
<td>Connecting for Kids: Creating Safe Schools and Communities</td>
<td>A description is not available for this course.</td>
<td>$27.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>XNC 2242</td>
<td>Connecting for Kids: Creating Safe Schools and Communities</td>
<td>A description is not available for this course.</td>
<td>$50.00</td>
</tr>
</tbody>
</table>
XNC 2243

**Business Skills Every Nurse Should Know**

In the ever-changing health care marketplace, nurses have more opportunities than ever to lead the pack in health care matters. You must arm yourself with knowledge about communications, negotiations, marketing, networking, managed care terminology, outcomes reporting, finance, computer systems, and résumé and publication writing. Influencing health care requires understanding why and how systems are formed, what financially drives those systems and what you as an individual can do to assure your own career path success. RNs, LPNs and LMHTs will earn 3 contact hours for attending this workshop.

$27.00

XNC 2244

"Write" Stuff: Writing for Publication

A description is not available for this course.

$27.00

XNC 2245

**Kids Need More than Bandaids and Medicine: The Psychosocial Needs of Hospitalized Children**

A description is not available for this course.

$27.00

XNC 2246

**Pharmacology Update: GI Disorders**

A description is not available for this course.

$27.00

XNC 2247

**Dying Well**

A description is not available for this course.

$54.00

XNC 2248

**Metagrumbling: Understanding the Communication and Changing the Behavior**

A description is not available for this course.

$27.00

XNC 2249

**Untying the Knots in Family Ties**

A description is not available for this course.

$54.00

XNC 2250

**Baby Boomers: Aging and Health Care**

The "baby bomers", the 76 million babies born between 1946 and 1964, have become the dominant social, market and political force in our society. Who are they? What are they like? This workshop will provide you with a demographic profile of the "boomers," their relationship to other populations, their impact as babies, children, teens, young and middle-age adults and their future impact on
health care providers. You will learn how to work effectively with this population in preparation for the aging boom of tomorrow. RNs, LPNs and LMHTs will earn 3 contact hours for attending this course. Kansas ACHAs will earn 3 (RC) hours. Approval is pending for other health care professionals.

$27.00
XNC 2251
Asthma: Update 2001
An estimated 17 million Americans, five million under age 18, have asthma. One adult out of three suffers from gastroesophageal reflux disease (GERD), a common trigger for asthma. Asthma, GERD and related conditions are becoming more prevalent across all age, sex and racial groups and the magnitude of these conditions alone compels nurses and other health professionals to be knowledgeable about recent innovations in successful management. This program will help update your knowledge and familiarize you with strategies to effectively assist the asthma patient to maintain better control of his/her disease. The morning session of this workshop will utilize a didactic format to present an overview of these conditions focusing on presentation, triggers, management strategies and pharmacotherapy. The afternoon session will utilize problem based learning to develop an action plan for both an adult and pediatric patient, giving you an opportunity to put theory into action. RNs and LPNs will earn 6 contact hours for attending this workshop.

$54.00
XNC 2252
Strategies for Changing Bullying Behaviors
A description is not available for this course.

$27.00
XNC 2253
Introduction to Chinese Medicine and Acupuncture
Traditional Chinese medicine, much of which is based in Taoism, teaches that when your body, mind and spirit are in harmony with one another, you will achieve internal balance. When any of these factors is stressed, internal Qi imbalances arise and disease and dysfunction result. In this workshop, you will explore the basic tenets of Chinese medicine, including "Yin and Yang" and "Qi," as well as discuss how Meridian Therapy (acupuncture) and other therapies assist in maintaining health and treating illness. RNs, LPNs, LMHTs, dentists and dental hygienists will earn 6 contact hours for attending this workshop. Approval is pending for other health disciplines.

$54.00
XNC 2254
Legal Aspects of Documentation
A description is not available for this course.

$36.00
XNC 2255
Postpartum Depression and Anxiety: Assessment and Treatment
A description is not available for this course.

$27.00
XNC 2256
Healing the Past, Living the Present
Do you ever feel that no matter how hard you try you keep dealing with feelings
and relationships in ways that make you feel worse instead of better? Unhealed wounds from childhood can have a profound impact on your life and keep you from finding the fulfillment you deserve. Explore the reasons you have difficulty breaking out of old patterns as well as how your relationships can be more rewarding. RNs, LPNs, LMHTs and social workers will earn 6 contact hours for attending this workshop. Kansas ACHAs will earn 6 (A) hours.

$54.00
XNC 2257

Delegation and Supervision: Yours, Mine or Ours?
Health care reorganization, downsizing and increasing penetration of managed care have yielded major adjustments in skill mix. Consolidation of care functions as well as cross training of both licensed and unlicensed personnel underscores the need for you to clearly understand the underlying principles and issues involved in delegation and supervision. This session will provide you with information on legal, regulatory, professional standards and competency, and organizational leadership issues involved in safe and effective delegation and supervision. It will also include recommendations for action. RNs, LPNs and LMHTs will earn 6 contact hours for attending this workshop.

$54.00
XNC 2258

Simply Put Psychopharmacology: The Mood Disorders
In the last few years, there has been a barrage of information and use of medications to assist in the treatment of psychological disorders. This workshop will help you understand the disorders associated with depression and gain clarity about the psychopharmacological treatments used to treat these disorders. RNs, LPNs and LMHTs will earn 3 contact hours for attending this workshop. Approval is pending for other health professionals.

$27.00
XNC 2259

HIV/AIDS Update: Looking Toward the Future and Rebuilding the Immune System
A description is not available for this course.

$27.00
XNC 2260

Understanding and Dealing with Difficult Children
Irritability, agitation and/or distractability, running away, frequent arguing or anger---normal developmental struggles or behavioral problems that trigger concern? Children and adolescents can display a wide array of behaviors, including some that may not always "make sense" or seem appropriate to the situation at hand. In this workshop, you will identify qualities, characteristics and behaviors associated with normal and abnormal development, distinguish common diagnostic categories related to behavior problems and explore strategies for managing problem behavior in children and adolescents. RNs, LPNs and LMHTs will earn 3 contact hours for attending this workshop. Approval is pending for other health professionals.

$27.00
XNC 2261

Postpartum Care of Mother, Baby and Family: Problem Prevention and Management
A description is not available for this course.

$54.00
XNC 2262
Violence and the Family
A description is not available for this course.
$70.00

XNC 2263
Powerful Choices: Maximizing Personal and Professional Power

XNC 2264
Hope, Affirmation, and Encouragement: Psychotherapeutic Strategies with the Older Adult
A description is not available for this course.
$27.00

XNC 2265
Men, Women and Change
A description is not available for this course.
$54.00

XNC 2266
Introduction to the Enneagram: Moving Toward Balance
A description is not available for this course.
$72.00

XNC 2267
Women and Heart Disease
A description is not available for this course.
$27.00

XNC 2268
Cardiovascular Assessment
A description is not available for this course.
$27.00

XNC 2269
Dying Well: Major Issues
A description is not available for this course.
$27.00

XNC 2270
Stepfamilies
A description is not available for this course.
$54.00
Update on Chronic Fatigue Syndrome
A description is not available for this course.

$27.00
XNC 2272
Case Study Approach to Diagnostic Test Assessment
A description is not available for this course.

$54.00
XNC 2273
Music Brings the Heart Back Home
A description is not available for this course.

$54.00
XNC 2274
Using Action Therapy in Your Personal Life and Professional Practice

$54.00
XNC 2275
Women and Anger
A description is not available for this course.

$27.00
XNC 2276
Issues and Trends in Healthcare (Formerly Titled Issues and Trends in Nursing)
A description is not available for this course.

$54.00
XNC 2277
Outcomes Management: Proving Our Value
A description is not available for this course.

$27.00
XNC 2278
Discovering the Differences in Delivering Non-Surgical Peridontal Debridement Therapy
(Dentist Fee $149, Dental Hygienist Fee $89)

$149.00
XNC 2279
Helping Families Survive Divorce
A description is not available for this course.

$27.00
XNC 2280
Introduction to Office Dermatology
A description is not available for this course.

$27.00
XNC 2281
Nutrition and the Older Adult: Issues Essential to Health and Healing
A description is not available for this course.

$54.00
XNC 2282
Caught in the Middle: The Sandwich Generation Dilemma
A description is not available for this course.

$27.00
XNC 2283
Helping Children Grieve: A Developmental Approach to Childhood Grief
A description is not available for this course.

$27.00
XNC 2284
Yoga and Meditation: An Introduction and Experience
Given our frantic schedules and high levels of fatigue, is it any wonder that people are seeking ways to feed their mind, body and soul with original energy? The practice of yoga and meditation have been shown to be very effective life skills for health professionals and their patients. This seminar will focus on practices that calm the "inner well-being", and help one know their purpose in life, while avoiding the propensity to be robotic. Dress in casual, comfortable, loose fitting clothes (no dresses or skirts). RNs, LPNs, LMHTs, social workers, counselors, dentist and dental hygienists will earn 3 contact hours for attending this workshop. ACHAs will earn 3 (E) hours. Approval is pending for OTs and PTs.

$36.00
XNC 2285
Sick Role: Understanding the Psychological Impact of Illness
A description is not available for this course.

$54.00
XNC 2286
What Every Nurse Should About Cancer: Cells, Chemotherapy and Caring - Eighth Mary Ann Thompson Memorial Cancer Seminar Review what causes cancer to be a life threatening disease, discuss the role of screening and early diagnosis and learn about treatments such as chemotherapy, monoclonal antibodies, biologic response modifiers, hormonal medications and newer therapies. Explore symptom management for common problems to improve quality of life while undergoing treatment. RNs and LPNs will earn 6 contact hours for attending this workshop

$40.00
XNC 2287
Confronting Periodontal Disease: A Day in the Life of a Dental Professional (Dentist Fee $149, Dental Hygienist Fee $89)

$149.00
XNC 2288
Connecting for Kids: Exploring the Diversity Needs of Today's Children
(Includes a Box Lunch)

$50.00

XNC 2289
Delegation and Supervision: Is My License on the Line?
A description is not available for this course.

$27.00

XNC 2290
AIDS 101: Pathogenesis and Immunodeficiency of the Human Immunodeficiency Virus
A description is not available for this course.

$27.00

XNC 2291
Stress Management for the Superachiever
Extraordinarily high standards combined with the need to balance multiple roles are the hallmarks of the superachieving personality. Driven to succeed, superachievers push themselves to perform with perfection and often ignore signs and symptoms of distress. This scenario places them at risk for mental and physical exhaustion. As the healthcare environment grows increasingly demanding, superachievers are vulnerable to developing serious complications from the stress in their lives. If you are experiencing stress-related symptoms, suspect you might be a superachiever or have been told you hold very high standards, join us to learn stress management skills for the superachiever. RNs, LPNs and LMHTs will earn 3 contact hours for attending this workshop. Kansas ACHAs will earn 3 (A) hours for attending. Approval is pending for other health care professionals.

$27.00

XNC 2292
Understanding the Effects of Sibling Relationships
Are you the oldest, youngest, middle, only child? Or maybe a twin? Understanding the effects of your sibling relationships and position is useful in knowing yourself better and navigating relationships at home and work. In this class, you will explore common characteristics of various sibling positions and examine how sibling relationships affect your personality, adaptability to stress and relationship style. You will also take a look at how sibling relationships are affected by family maturity and anxiety. RNs, LPNs and LMHTs will earn 3 contact hours for attending this workshop. Approval is pending for other health professionals.

$27.00

XNC 2293
Antibiotics: What's New?
Need an update on the newer antibiotics being used? This workshop will examine new antibiotics for bacterial infections as well as review newer drugs for viral and fungal infections. A systems approach will be used and discussion will focus on mechanisms of action, principles of therapy and nursing implications. Nurses practicing in both inpatient and outpatient settings will find the information beneficial. The course will not cover treatment of HIV/AIDS. RNs, LPNs and LMHTs will earn 3 contact hours for attending this workshop. Approval is pending for other health professionals.

$27.00
XNC 2294

Breastfeeding: Clinical Management for the Early Days
This course will offer basic and advanced level information about lactation physiology, interventions that work in promoting and facilitating successful breastfeeding, and problem diagnosis and management. Strategies for use with fullterm and preterm babies and their mothers will be presented. RNs and LPNs will earn 9 contact hours for attending this workshop. Approval is pending for other health professionals.

$89.00

XNC 2295

Awakening the Spirit Within: Daring to Be Yourself
Think about creating the kind of life that reflects who you really are--your talents, your values, your serenity, your joy? There are so many ways in which you can express your true self every day of your life. And, there are so many ways to keep that from happening! In this experiential workshop, you will explore who you really are--your dreams, fears, passions, blocks, spirituality, creativity, laughter, gratitude--your SPIRIT. You will discover ways in which you are already expressing your authentic self as well as tools for deepening your understanding of what makes you YOU. RNs, LPNs, LMHTs, social workers, counselors, dentist and dental hygienists will earn 6 contact hours for attending this workshop. Kansas ACHAs will earn 6 (A) hours. Approval is pending for other health professionals.

$54.00

XNC 2296

Right Choice: Values and Ethics for Changing Times
Social critics say that Americans are losing "moral fiber". The nightly news is filled with stories of people's inhumanity to others. Are values and ethics following the path of extinction? Are the values and ethics of health professionals immune to such a fate? Re-engineering, financial constraints and the continuous call to "do more with less" challenge each of us to examine the ethical foundation of our practice. This course will explore ethical issues related to professional conduct rather than biomedical ethics. RNs, LPNs and LMHTs will earn 6 contact hours for attending this workshop. Kansas ACHAs will earn 6 (RC) hours. Approval pending for other health professionals.

$54.00

XNC 2297

Power of Light: From Harming Light to Healing Light
Traditionally, sunlight has been associated with health and well being. Now, however, we are being warned of damaging light rays from the sun and other environmental sources. We hear that sunlight increases risk of skin cancer and that certain foods, medicines and topical applications can react with light to cause unpleasant or damaging results. Conversely, laser light, infrared light and ultraviolet light are sometimes employed to improve and heal our bodies. In this workshop, you will explore the spectrum of light and its qualities and learn more about its possibilities and dangers. RNs and LPNs will earn 3 contact hours for attending this workshop.

$27.00

XNC 2298

Exploring Issues of Diversity in Patient Care
As a health care provider, you are mandated to increase your understanding and sensitivity to the varied people you meet and care for as part of your job. In this workshop, you will explore the dimensions of diversity, learn how your own background influences your personal paradigms and how these paradigms influence your professional practice. You will explore the concept of "privilege" and its effects on those that receive it and those that do not. You will examine
organizational culture and its impact on professional practice and gain practical information that will allow you to more effectively meet the diversity needs of your patients. RNs, LPNs and LMHTs will earn 6 contact hours for attending this workshop. Approval is pending for other health professionals.

$54.00
XNC 2300
Promoting Oral Health for the Elderly: A Course for Dental Professionals
Our elderly population is rapidly growing and dental professionals must respond to the evolving oral care needs of this group. This program will assist you with identifying access to care challenges for today’s elderly population and learn how to become actively involved with identifying solutions. You will examine the current structure of the oral health delivery system and discuss ways to develop promotional and educational oral care programs through partnering with community organizations. Dentists and dental hygienists will earn 3 contact hours for attending this program. (Dentist Fee $59) (Dental Hygienist Fee $29)

$59.00
XNC 2301
Assessment and Care of the Patient With a Failing Heart
There is currently an EPIDEMIC of heart failure in the United States with over 5 million active cases. In fact, heart failure is the most common reason for hospital admission in Medicare patients. Join us for this presentation and equip yourself to perform a thorough nursing assessment of your next heart failure patient and also gain a current understanding of heart failure and the modern array of therapy for management of this complex problem. As our understanding of the mechanisms of heart failure has evolved, it has become one of the most exciting arenas for the cardiac nurse as we can now make a real impact on the well-being of these patients. This course provides a dynamic & dimensional portrayal of this increasingly prevalent but deadly disease! RNs, LPNs and LMHTs will earn 4 contact hours for attending this workshop. ACHAs will earn 4 (RC) hours.

$48.00
XNC 2302
Obstetrical Emergencies
Fortunately, obstetrical emergencies are rare, but when they occur, the results may be devastating, possibly compromising or ending two lives. In this workshop, you will explore selected obstetrical emergencies which may occur in the antepartum, intrapartum and/or postpartum period, including hemorrhagic complications, hypertensive disorders, shoulder dystocia and others. You will discuss pathophysiology as well as focus on early detection and nursing intervention to maximize outcomes. RNs and LPNs will earn 6 contact hours for attending this workshop.

$54.00
XNC 2303
Understanding Substance Abuse
Alcoholism and drug abuse present major problems and crisis situations for individuals and families. Understanding "drugs of choice" and learning how to most effectively deal with the effects of substance abuse can be complicated. This presentation will include an overview of alcohol, cocaine, and marijuana abuse and treatment models. The special populations of women, children and adolescents who abuse these substances will also be explored. RNs, LPNs and LMHTs will earn 6 contact hours for attending this workshop. Approval is pending for other health professionals.

$54.00
XNC 2304
**Developing Healthy Boundaries**

Boundaries are essential for personal and professional growth and development. In this workshop, you will examine emotional, physical and spiritual beliefs to better understand the basic dynamics of boundaries. You will also explore how issues developed from infancy can impact all areas of adult life. RNs, LPNs and LMHTs will earn 6 contact hours for attending this workshop. Approval is pending for other health professionals.

$54.00

**XNC 2305**

**Introduction to Complementary and Alternative Therapies**

In Health Care Health care professionals are increasingly being challenged to answer questions about alternative therapies, help patients with referrals to alternative practitioners and learn more about the science behind such therapies. This course will provide an overview of a variety of alternative therapies currently being used by patients. The concept of evidence-based medicine will be discussed, especially as it applies to creating a level playing field for conventional and alternative therapies. RNs, LPNs and LMHTs will earn 3 contact hours for attending this workshop. Approval is pending for other health professionals.

$27.00

**XNC 2306**

**Stroke: Assessment and Management Strategies for the New Millennium**

Stroke is the third leading killer and the number one cause of adult disability in this country. In spite of recent innovations in understanding and managing stroke, clinicians continue to struggle to define, measure and assess the physical, psychosocial and societal impact of stroke and the effectiveness of therapeutic interventions. This seminar will provide an update on primary and secondary prevention, diagnosis and medical management of hemorrhagic and ischemic stroke. Neurologic, functional and psychosocial assessment tools will be defined and discussed. Special emphasis will be paid to the assessment and treatment of visual and perceptual deficits. RNs, LPNs and LMHTs will earn 6 contact hours for attending this workshop. Approval is pending for other health professionals.

$54.00

**XNC 2307**

**Introduction to ICD-9-CM Coding**

A basic understanding of coding has become an important part of effective health care delivery. If you need an introduction to coding and want to focus on basic how to's, plan to attend this practical course. The course will begin with an overview of the coding system and its conventions and will include in-class exercises from real-life situations to help you correctly apply the concepts learned. While the basic concepts are applicable to a variety of health care settings, the content is hospital focused. A working knowledge of medical terminology is recommended. You will need to bring an ICD-9-CM coding book to each class. You may use any recent edition you have available or purchase the latest edition in the JCCC bookstore. Certificates of attendance will be awarded upon completion of the course.

$79.00

**XNC 2308**

**Sharpening Your Skills in Dealing with Ethical Issues**

Ethical issues confronting health care providers in our society have become more complex and challenging. Consumers are generally well-informed and demand more and better health care services, yet contradictory value systems are prevalent throughout both health care and society. In this seminar, you will explore critical content to assist you to strengthen decision-making and problem-solving skills in dealing with ethical issues in both your professional career and your personal life. Dental professionals, RNs, LPNs, and LMHTs will earn 6 contact hours for attending this workshop. Approval is pending for other
health professionals.

$54.00

XNC 2309

Women and Heart Disease: Decreasing Risk and Promoting Health
This three-hour workshop will focus on heart disease and its occurrence in women. You will review the general risk factors for the development of atherosclerotic disease and give special attention to those risk factors unique to the female population. You will explore ideas to modify those risk factors as well as discover ways to promote a healthy lifestyle. Special emphasis will be given to cholesterol management in women. Exercise and activities for older women will be discussed also. RNs, LPNs and LMHTs will earn 3 contact hours for attending this workshop. Approval is pending for other health professionals.

$27.00

XNC 2310

Assuring a Safe Workplace: Annual OSHA Update Course
This course provides participants with an overview and update of the mandatory OSHA Bloodborne Pathogen Standard, Hazard Communication Standard and the General Industry Standard. Although the standards are reviewed, participants attending this course should have knowledge and previous training in the OSHA standards. The course is presented as a review and current update and will satisfy the required annual training for the Bloodborne Pathogen Standard. Future standards being considered by OSHA will be discussed as well. RNs, LPNs, dentists and dental hygienists will earn 3 contact hours for attending this program. Kansas ACHAs will earn 3 (A) hours. Approval is pending for other health care professionals.

$27.00

XNC 2311

An Update on AIDS
Through the rapid evolution of treatment options and our scientific understanding of the HIV disease, today's clinician faces the challenge of staying abreast of the state-of-the-art treatment modalities and newest research discoveries. A patient's clinical well-being depends heavily on the clinician's knowledge base and awareness of the most modern tools available. This course will provide an in-depth look at the natural history, epidemiology and pathogenesis of HIV infection. RNs, LPNs and LMHTs will earn 3 contact hours for attending this workshop. Approval is pending for other health professionals.

$27.00

XNC 2312

Behavioral Disorders in Children: Dynamics, Issues and Interventions
Explore etiological, diagnostic and clinical approaches for behavioral disorders commonly observed during childhood and adolescence, including conduct disorder, oppositional defiant disorder and ADHD. RNs, LPNs, LMHTs, social workers and counselors will earn 3 contact hours for attending this workshop.

$27.00

XNC 2313

Making Sense of What We Do: An Introduction to Bowen Family Systems Theory
Understanding human behavior has always been challenging. Bowen family systems theory provides a natural systems perspective with which to make sense out of what we do. It offers a road map that enables us to understand more about ourselves and about the people we treat—particularly, how relationships influence behavior and the development of symptoms. It also provides a way of thinking about how family relationships and
the influence they exert throughout our lives. In this seminar, you will learn the 
basic concepts of Bowen family systems theory. You will examine numerous 
relationship systems, including marital relationships, parent-child relationships and 
work relationships. Emphasis will be placed on applying theoretical 
understandings to everyday personal, clinical and work situations. RNs, LPNs, 
LMHTs, social workers and counselors will earn 6 contact hours for this workshop.

$59.00
XNC 2314
Demystifying Medical Terminology
This introductory course, which serves as the prerequisite for the Medical Coding 
Certification Course, is of special interest to billing and insurance personnel, as 
well as consumers. The course covers use of basic medical terms in oral and 
written communication plus use of word-analysis and word-building skills to 
expand a basic vocabulary. No CE credit is offered.

$108.00
XNC 2315
Innovations in Diabetes Management
Innovative advances are evident in every dimension of diabetic care--new oral 
medications, new insulin, nutrition guidelines and choices, new glucose monitors, 
computer related technology and new administration devices and aides. 
Preventing the onset of diabetes, especially among our nation's youth, is a high 
priority of care and education. This exciting workshop will provide you with the 
latest information about recent advances, including the concept of self care/self 
management as the basis for diabetes treatment and education. RNs and LPNs 
will earn 7 contact hours for attending this workshop. Approval is pending for other 
professional groups.

$63.00
XNC 2316
Healthy Boundaries: Increasing Personal and Professional 
Effectiveness While we realize that boundaries are essential for 
personal/professional growth, it is not always clear how we develop them or how 
they impact our lives on a daily basis. Learn the basic dynamics of boundaries 
and explore how boundary issues are developed from infancy and how they can 
affect adult life. RNs, LPNs, LMHTs, social workers and counselors will earn 6 
contact hours for attending this workshop. Kansas ACHAs will earn 6(A) hours. 
Approval is pending for other healthcare professionals.

$54.00
XNC 2317
Tips, Tactics and Techniques for Communicating in the 
Dental World Our dental patients do not want dentistry! That's right! They want the 
benefits of dentistry--improved appearance, greater comfort, better function and a 
generally improved feeling and quality of life. So, how can we steer our patients to 
want what they "need"? Join us for this high energy, fun-filled and informative 
evening designed to take the monotony and boredom out of your patient 
education and treatment presentations. Learn ways to vitalize your 
communication skills and trigger that motivational spark in each of your patients. 
Be ready to enjoy the process and relish the result in this relaxed evening of 
enlightenment. Dentists and dental hygienists will earn 3 contact hours for attending 
this workshop. Fee for dentist is $59. Fee for dental hygienists is $29.

$69.00
XNC 2318
Alzheimer's and Other Dementias: Strategies for Assisting 
Patients and Caregivers Alzheimer's Disease is the fourth leading cause of death
in the United States. Like many other chronic conditions, it has no known cause or cure. Caregivers, including health care providers, who assist individuals with Alzheimer’s or other dementias, often face unique and seemingly impossible obstacles as they struggle to provide care. How do you prevent a confused person from driving a car or bathe a resistant resident? How do you communicate with a person who can not process information in a rational way? This workshop will explore problems confronting caregivers and offer practical approaches to assist them in dealing with demented individuals. RNs, LPNs, social workers, counselors and clergy will earn 3 contact hours for attending this workshop. Approval is pending for other health disciplines.

$27.00

XNC 2319

Aging and Individual Differences: We are More
Alike at 10 than at 70 Why are we more alike at 10 than at 70? Why are some people in a nursing home at 78 and others able to orbit the earth?--or lead a country? This course will present an overview of physical and psychological aspects of the aging process and how individual differences often become more pronounced as we age. Knowledge about aging not only helps us to serve our clients and patients better, but it is also important for our own personal benefit. RNs, LPNs, LMHTs, social workers, counselors, dentists, and dental hygienists will earn 3 contact hours for attending this workshop. Approval is pending for other health disciplines.

$27.00

XNC 2320

Healing Power of the Pen: Journaling as a Therapeutic Tool Today's world is hectic. As people face the challenges of personal and professional transitions, the technique of journaling can be a helpful tool for change. Journaling can help ease the stress that often accompanies transformation and growth and it can help break through the emotional blocks that stand in the way of success. In this innovative workshop, you will learn techniques for personal use as well as explore specific case examples of exercises that can be used when working with patients/clients--those coping with serious illness, disability and mental health issues, including alcoholics, adult children of alcoholics and others in the addictions recovery process. RNs, LPNs and LMHTs will earn 6 contact hours for attending this workshop. Approval is pending for other health professionals.

$54.00

XNC 2321

Marriage or Divorce? (An In-depth Seminar for Clinicians)
Sitting on the fence between marriage and divorce is one of life’s weighty dilemmas for people in psychotherapy. Clients who are motivated to take a thoughtful approach with this difficulty can benefit from learning more about their emotional patterns in relationships and from taking another step in defining what principles matter most. How the clinician conceptualizes this issue significantly affects how this question is addressed in therapy. This seminar presents Bowen family systems theory as a framework for understanding how a marriage gets to this point and how to move forward. The seminar also focuses on the clinical work with the individual or couple. Case examples are presented to illustrate the therapy process. RNs, LPNs, LMHTs, psychologists, social workers, counselors and clergy will earn 6 contact hours for attending this workshop.

$79.00

XNC 2322

Depression and Suicide in Children and Adolescents
Learn to recognize depressive symptomatology in children and adolescents and understand its relationship to the development of a depressive disorder. Learn about suicide risk and other self destructive behaviors associated with depression.
as well as treatment and therapeutic interventions. RNs, LPNs, LMHTs, social workers and counselors will earn 3 contact hours for attending this workshop.

$27.00

XNC 2323

Awakening the Spirit Within: Daring to Be Yourself
Think about creating the kind of life that reflects who you really are—your talents, your values, your serenity, your joy? There are so many ways in which you can express your true self every day of your life. And, there are so many things to keep that from happening! In this experiential workshop, you will explore who you really are—your dreams, fears, passions, blocks, spirituality, creativity, laughter, gratitude—your SPIRIT. You will discover ways in which you are already expressing your authentic self as well as tools for deepening your understanding of what makes you YOU. If you're ready to take the next step in awakening your spirit within, join us for this day of self-discovery. RNs, LPNs, LMHTs, social workers, counselors, dentists and dental hygienists will earn 6 contact hours for attending this workshop.

$27.00

XNC 2325

Negativity: Increasing Skills for Diagnosis Intervention
and Prognosis We all know people whose general demeanor communicates—perhaps screams—negativity. Besides being unpleasant to deal with, negativity can significantly impact other individuals, groups and organizations. In this workshop, you will identify root causes of negativity and discuss ways to prevent, reduce or turn around negative attitudes or behaviors. RNs, LPNs and LMHTs will earn 6 contact hours for attending this workshop. Kansas ACHAs will earn 6 (A) hours. Approval is pending for other health professionals.

$27.00

XNC 2326

Three Score Years and Ten: Families and Eldercare
This seminar for helping professionals will focus on understanding the aging process within the context of family life. You will explore issues related to the life cycle, healthy aging, advance directives within the family context, family dilemmas associated with aging and the role of the professional care giver in working with the elderly and their families. This program will be helpful and interesting if you work with the elderly, have elderly family members or are thinking ahead about your own or a loved one's aging issues. RNs, LPNs, LMHTs, social workers, counselors, psychologists, dentists and dental hygienists will earn 6 contact hours for attending this workshop. Kansas ACHAs will earn 6 (RC) hours. Approval is pending for other health professionals.

$27.00

XNC 2327

Art of Positive Conflict: Creative Approaches to
Conflict Management

Do you hesitate to voice disagreement because you fear an unpleasant scene or a damaged relationship? Too often, disagreements are ignored because conflict is viewed as a destructive process. Learning to use conflict as a constructive tool for problem solving gives you the confidence to approach disagreements expecting positive outcomes. Achieving outcomes that enhance relationships and produce positive solutions is the essence of creative conflict. Join us as we explore this essential interpersonal skill. RNs, LPNs, LMHTs, social workers, counselors, dentists and dental hygienists will earn 6 contact hours for attending this workshop. Approval is pending for other health disciplines.

$54.00
XNC 2328
Competency: Individual and Organizational Accountability

Increasing attention is being directed toward assuring competency of practicing health care professionals. This workshop will provide you with an overview of the legal, regulatory, accreditation and professional standards that draw attention to issues of competency. You will explore strategies for assessing competency as well as implications for practice, including accepting or declining assignments, delegation and floating. You will look at this important issue from both the individual and organizational perspective and discuss the responsibility and accountability of each for assuring appropriate practice competencies. RNs, LPNs and LMHTs will earn 3 contact hours for attending this workshop.

$27.00
XNC 2329
Connecting for Kids: Discovering Diversity's Colorful

Palette Health care professionals have an opportunity to view their patients' diversity as a colorful palette, with each patient adding a special hue or intensity to the experience, interaction or relationship. But while a colorful palette adds interest, it can also add confusion as we try to appreciate and understand individual and cultural differences. This program will help identify our prejudices and how they impact the way we perceive others as well as explore techniques for communicating with people from cultures other than our own. Presenters will demonstrate ways to hold a discussion without alienating others and discuss case studies from several different cultural backgrounds. Alice Kitchen, Children's Mercy Hospital, will supplement the program with a hands-on approach to available resources, i.e. medical record translation and using the Internet as a research tool. RNs, LPNs, LMHTs, social workers, counselors, dentists and dental hygienists will earn 3.5 contact hours for attending this workshop.

$35.00
XNC 2330
Parkinson's Disease: New Miracles

Learn about the new "miracle" surgery for Parkinson's Disease as well as some of the problems patients have encountered after the procedure. Newer medications and the latest findings regarding swallowing, balance, exercise and ADL's will be included also. RNs and LPNs will earn 6 contact hours for attending this workshop. Kansas ACHAs will earn 6 (RC) hours. Approval is pending for other health professionals.

$54.00
XNC 2331
Managed Care: Mastering the Basics

The dynamics of the health care delivery system have changed dramatically over the past several years. The single most important factor impacting the change in health care delivery is consumer demand for quality care at an affordable price. As a result, we have witnessed the emergence of managed care. This workshop will provide you with a basic understanding of managed care, the concept of medical management, and the expanding roles for nurses in this growing area of
health care. This timely workshop will give you insights and new information for
decision-making in our changing health care environment. RNs and LPNs will earn 4 contact hours for attending this workshop.

$36.00
XNC 2332
High Tech Dentistry with a Compassionate Spirit:
A Recipe for Success Technology is pushing dentistry rapidly ahead in
preparation for the new millennium. Which components are right for you and for your dental office? What benefits will they provide? What headaches? How will the staff adjust to the changes that result? And most important, what will your patients think? This workshop will provide a candid look at the high-tech dental office through the eyes of an experienced dentist and her practice manager. You will meet a dentist who went from being afraid to turn a computer on to one who uses most of the high-tech components available. You will interact with a practice manager who knew computers and how to care of people, but did not know an amalgam from an occlusal. Yet, together they have learned how to combine technology and a compassionate spirit to build a very successful dental practice. They look forward to sharing their journey with your dental team. Dentists and dental hygienists will earn 6 contact hours for attending this workshop. The fee for Dentists is $159. The fee for dental hygienists and dental office staff is $89.

$159.00
XNC 2333
Introduction to CPT-4 Coding
A basic understanding of coding has become an important part of effective health care delivery. If you need an introduction to coding and want to focus on basic how-to's, plan to attend this practical course. The course will begin with an overview of the coding system and its conventions. You will code in-class exercises from real-life situations to help you correctly apply the concepts presented. The CPT-4 coding book can be purchased in the JCCC bookstore. Because this course is applicable to a wide range of medical office professionals, no C.E. credit will be given. Certifications documenting attendance will be awarded and may be submitted by the individual participant to the appropriate licensing board.

$39.00
XNC 2334
Taking Care of You: Creative Self-Care
Is it possible to maintain a career and a life? Organizational demands and busy lifestyles have left many health care providers wondering about this question. Fortunately, the answer is yes! Learn how to prioritize needs and establish a plan for getting those needs met. Explore ways to develop daily discipline, a requirement for maintaining spiritual, emotional and physical health. Maintain a sense of peace even when the world around you seems hectic and chaotic. Join us to discover how to creatively take care of you! RNs, LPNs and LMHTs will earn 6 contact hours for attending this workshop. Approval is pending for other health care professionals.

$54.00
XNC 2335
The Challenges of Longevity
We often hear "when the baby boomers reach 65..." Economic implications and social security are already a concern and the large numbers in this age group will influence other factors also. When a large proportion of older people dominates a culture, the social and political climates change as well. Explore these factors and learn how older adults can use their later years in purposeful and rewarding ways. Learn how the healthy and more energetic older adult can contribute in the community, in the family and develop a deeper inner life. Resources for this pursuit will be presented. RNs, LPNs and LMHTs will earn 3 contact hours for
attending this workshop. Approval is pending for other health care professionals.

$27.00
XNC 2336

Practice What You Preach: Modeling Healthy Weight
Management Why is it so hard to maintain a healthy weight? Even many health professionals find it very difficult to remain physically fit. This program will help health care professionals analyze the effectiveness of their personal and professional approaches to healthy weight management. You will learn research-based strategies for eating without overeating, for getting regular exercise without procrastinating and for gaining insight into how relationships may set you up for overeating and not getting regular exercise. You will receive detailed descriptions of the recommended weight management clinical guidelines by the National Institutes of Health (NIH) as well as the presenter's three-pronged approach—Holistic Self-Care Model for Long-Term Weight Management. RNs, LPNs and LMHTs will earn 6 contact hours for attending this workshop. Approval is pending for other health care professionals.

$54.00
XNC 2337

Putting Your Patient’s Best Foot Forward
Painful or disabling conditions of the feet prevent many individuals, especially older or homebound patients, from living comfortable and active lives. In this program, you will learn to assess skin condition, circulation, sensation and movement in the foot as well as discuss the management of common foot fungi. You will also have an opportunity to observe a demonstration of nail and skin care. RNs, LPNs and LMHTs will earn 3 contact hours for attending this workshop. Approval is pending for other health care professionals.

$27.00
XNC 2338

Nursing Documentation: Professional and Legal Issues
Nursing documentation has undergone multiple changes over the years and documentation methods are continuously evolving—narratives, soaps, AIEMS, focuses, exceptions, raps and paths! Individual, integrated and multidisciplinary formats! No matter what system is used, nursing documentation must reflect the nursing process and stand up to close scrutiny in legal, governmental and regulatory arenas. Learn to evaluate how documentation truly reflects the care received and examine examples of charting involved in medical malpractice cases. RNs, LPNs and LMHTs will earn 3 contact hours for attending this workshop.

$27.00
XNC 2339

Breathe Easy: An Update on the Pharmacologic Treatment
of Asthma and COPD This practical presentation will emphasize the appropriate use of pharmacological agents in the treatment of patients suffering from asthma and/or chronic obstructive pulmonary disease (COPD). The pharmacology, pharmacokinetics, use, side effects and evidenced-based alternatives will be discussed thoroughly. Case studies of various patient scenarios will be provided to facilitate understanding and application of the information presented. RNs and LPNs will earn 6 contact hours for attending this workshop. Approval is pending for other health care professionals.

$54.00
XNC 2340

Anger: The Road to Misery or Self-Discovery?
What happens when you get really angry? How does your body feel, how does
your mood change and how do you act? Does your mood and behavior depend on whether you are a male or a female? In this experiential workshop, you will take a look at the different sides of anger—things that influence your particular style of feeling and expressing it, how the anger of others affects you and how repressed anger shows up. RNs, LPNs and LMHTs will earn 6 contact hours for attending this workshop. Approval is pending for other health care professionals.

$54.00

XNC 2341

Diabetes: Psychosocial Aspects of Diagnosis and Self-Management What does it mean to be diabetic? How does an individual's attitudes and coping styles impact the four areas of diabetes care—diet, medication and glucose monitoring, stress management and exercise? In this workshop, you will explore how various factors, including age, gender, ethnicity and learning or parenting style, influence an individual's response to a diagnosis of diabetes. You will learn to utilize these factors to enhance your patient education and assist your client to achieve good medical outcomes. RNs, LPNs and LMHTs will earn 3 contact hours for attending this workshop. Approval is pending for other health care professionals.

$27.00

XNC 2342

Therapeutic Touch: A Nursing Intervention
Therapeutic Touch is a healing intervention that involves the direction of life energy by the practitioner to benefit the recipient. You will explore the interaction of the human energy fields with the environment and discuss the different phases of therapeutic touch. You will learn the importance of intentionality and centering in the therapeutic touch process. Specific research that supports the practice of therapeutic touch will also be discussed. RNs, LPNs and LMHTs will earn 6 contact hours for attending this workshop.

$54.00

XNC 2343

So You Want to Be a Nurse Entrepreneur?
Nurses, because of their education and experience, are in a unique position to work independently rather than in a traditional employment setting. If you are intrigued with this idea, this program will answer your questions and tell you how to get started. RNs and LPNs will earn 3 contact hours for attending this program.

$27.00

XNC 2344

Lab Values: The ABCs of CBCs (and ABGs and TSHs and Lytes and ...) This practical program will provide you with a clear understanding of various lab tests, when and why they are indicated and what their values mean. An overview of cardiac and liver enzymes will be presented and routine labs and their implications will be described. RNs, LPNs and LMHTs will earn 6 contact hours for attending this workshop.

$54.00

XNC 2345

Women and Heart Disease: The Silent Epidemic
Traditional research into the causes, diagnosis, treatment and prevention strategies of cardiovascular disease has been conducted predominantly on men. As a result, women have not been viewed as being at risk. Yet, national statistics support that more than 500,000 women die from heart disease annually, making it the leading cause of women’s death in the United States. This state of vulnerability warrants an emergent need to stimulate awareness, prompt early detection, education and prevention in addressing the magnitude of this "Silent
Epidemic" in women. Learn the approaches you need to improve the cardiovascular health of yourself, your family and your patients. RNs, LPNs and LMHTs will earn 3 contact hours for attending this workshop.

$27.00

XNC 2346

Sentinel Lymph Node: Concept and Technique

The histologic status of lymph nodes is an important prognostic indicator in patients with cancer. The first stop along the route of lymphatic drainage from a primary tumor is a limited set of regional lymph nodes. Dyes and radioactive traces are used to identify the first lymph node(s) to receive drainage from a tumor, termed sentinel lymph node(s). In melanoma, this sentinel lymph node reflects the status of a lymph node basin and is the basis for further treatment. In breast cancer, the use of sentinel lymph node biopsy is undergoing debate. In this workshop, you will review the lymphatic system and explore both the concept and technique for using this important prognostic indicator. RNs and LPNs will earn 3 contact hours for attending this workshop.

$27.00

XNC 2347

Hepatitis: Prevention and Management

Hepatitis, presenting in both acute and chronic forms, is more prevalent and often more serious than many people realize. While some forms of the illness may be mild, others can lead to life threatening illness and/or development of serious sequelae. In this program, you will examine the different types of hepatitis, explore new treatments and prevention strategies and receive the latest information regarding blood borne pathogen protocols. RNs, LPNs and LMHTs will earn 3 contact hours for attending this workshop. Approval is pending for other health care professionals.

$27.00

XNC 2348

Psychotropics Made Simple

The number and variety of psychotropic agents now available to treat clients/patients with mental disorders has grown significantly in the past few years. Many of these agents have diverse uses and are given to individuals in many different care settings. And you, the health care professional, are asked to respond knowledgeably to these situations! In this interactive program, you will explore the major disease states encountered in mental health care as well as the drug treatment and pharmacology associated with those illnesses. You will learn characteristics of major drug classifications, mechanisms of action, common side effects and implications for use. While pharmacologic treatment of five/six major disease states will be highlighted, the program is flexible and will include an opportunity for questions and more in-depth discussion as needed to provide practical information to assist you in your practice setting. RNs, LPNs, LMHTs, social workers, psychologists and counselors will earn 4 contact hours for attending this workshop. Kansas ACHAs will earn 4 (RC) contact hours. Approval is pending for other health care professionals.

$36.00

XNC 2349

ADD/ADHD: Diagnostic Issues and Management Strategies

Hear thought provoking discussion addressing diagnostic and assessment issues regarding individuals with attention dysfunction (ADD/ADHD). Learn about research, the challenges associated with the condition and successful treatment interventions. RNs, LPNs and LMHTs will earn 3 contact hours for attending this workshop. Approval is pending for other health professionals.

$27.00
**XNC 2350**

**Drug Therapy in the Elderly**
The elderly constitute about 12.5% of the US population. A myriad of health-related problems complicate the lives of these older individuals. Management of these medical problems frequently involves the use of multiple medications resulting in a variety of adverse events. This program will help you gain a better understanding of these events and provide strategies to prevent adverse outcomes of drug therapy. In addition, the most commonly prescribed medications for the elderly will be discussed. RNs, LPNs and LMHTs will earn 3 contact hours for attending this workshop. Kansas ACHAs will earn 3 (RC) hours.

$27.00

**XNC 2351**

**Mastering Those Dysrhythmia Challenges**
This program is designed for nurses and emergency personnel who already have a basic understanding of dysrhythmia analysis and who wish to advance their skills. You will gain confidence in recognizing and appropriately responding to the dysrhythmias covered. Lecture as well as practice on EKG strips will be included. RNs and LPNs will earn 6 contact hours for attending this workshop.

$54.00

**XNC 2352**

**Holistic Approaches to Chronic Fatigue Syndrome**
and Fibromyalgia Chronic Fatigue Syndrome (CFS) and Fibromyalgia have many common features, and some patients may actually have both conditions. Living with these conditions is often very difficult for patients. Health care providers, helping patients manage these chronic ailments, find them challenging as well. This program will discuss criteria for the diagnosis of CFS and Fibromyalgia and review the latest literature on treatment strategies. Energetic body work will also be presented and explored. The program also will highlight current thinking about the roots of these two increasingly common diagnoses and assist participants in understanding current research in the field. RNs, LPNs, LMHTs, social workers, counselors, psychologists, dentists and dental hygienists will earn 3 contact hours for attending this program. Approval is pending for other health care professionals.

$27.00

**XNC 2353**

**Workplace Relationships: Best Friends or Worst**
Wherever men and women come together to accomplish a common goal, conflict seems to be an inevitable companion. This is just as true of the health care workplace as any other. In this workshop, you will examine basic life principles---the power of love, the practical application of forgiveness, keeping work issues in perspective and the importance of affirmation ---and how these impact workplace relationships, often turning worst nightmares into best friends. RNs, LPNs and LMHTs will earn 6 contact hours for attending this workshop. Approval is pending for other health professionals. Kansas ACHAs will earn 6 (RC) hours.

$54.00

**XNC 2354**

**Anatomy of a Lawsuit: A Case Study Approach**
Changes in our health care system have broadened the scope of nursing practice and professional accountability. Increased accountability can mean increased liability! It is essential for today’s nurse to be aware of areas of risk exposure and potential liability. This seminar will feature three legal nurse consultants who frequently review medical malpractice cases. You will learn how a medical practice case is researched and hear expert witnesses present actual court cases with trial exhibits. RNs, LPNs and LMHTs will earn 4 contact hours for attending this workshop.

$54.00
attending this course. Approval is pending for other health professionals.

$36.00
XNC 2355

Generation to Generation: How the Family Influences

Children It is generally accepted that the family influences how children function. However, how this occurs is often not understood. Popular ideas range from blaming the mother to blaming the genetic pool of the family. These explanations do not offer people a way of thinking that takes into account how the family emotional environment can influence the behavior of children. This way of thinking dispels the myth of the "dysfunctional family" and focuses instead on the numerous variables that influence how parents function in relationship to their children. The perspective presented in this seminar is based on Bowen family systems theory, which outlines the complexity of how previous generations exert influence on current generations. The "generation" affect will be explored through the concepts of the theory and through clinical examples. RNs, LPNs and LMHTs will earn 6 contact hours for attending this workshop. Approval is pending for other health professionals.

$69.00
XNC 2356

Dermatologic Emergencies and Urgencies

Often rashes or other skin problems may appear benign, but actually reflect an ominous diagnosis. Other conditions can appear alarming, but warrant only reassurance. In this workshop, nurses who encounter patients with skin problems as part of their daily care will discover cutaneous clinical clues that will assist them in providing knowledgeable care for patients who present with various inflammatory, infectious and neoplastic processes. Emphasis will be placed on clinical presentation and will include diagnostic intervention when appropriate. RNs and LPNs will earn 3 contact hours for attending this workshop.

$27.00
XNC 2357

Diabetes and Pregnancy

The outcome of pregnancy complicated by diabetes can be significantly influenced by the effective management of blood glucose levels. In this presentation, you will discuss gestational diabetes as well as pregnancy complicated by pre-existing diabetes. You will explore the pathophysiology of both conditions and learn screening criteria. You will discuss important aspects of effective management, including nutrition, exercise, stress reduction, medications, and intensive monitoring of mother and baby before and during pregnancy, labor, delivery and postpartum. Emphasis will be placed on achieving "healthy moms and healthy babies." RNs and LPNs will earn 6 contact hours for attending this workshop. Approval is pending for other health professionals.

$54.00
XNC 2358

Innovations in Treating Arthritis

Arthritis and other rheumatic conditions affect more than 42 million Americans, approximately one in every six people. Arthritis is the leading cause of disability in the United States and accounts for medical costs of $15 billion annually. The magnitude of arthritis and related conditions alone compels nurses and other health professionals to be knowledgeable about recent innovations in managing these conditions. This presentation will provide an overview of rheumatic disorders, including rheumatoid arthritis, osteoarthritis, lupus and polymyositis, and will include the clinical presentation, treatment and drug therapy for these debilitating illnesses. RNs, LPNs and LMHTs will earn 3 contact hours for attending this workshop. Approval is pending for other health professionals.
XNC 2359
Assessment and Stabilization of the Extremities
This practical presentation will introduce you to the examination of the extremities. Using a systematic approach, you will review the appropriate anatomy and learn to perform a detailed assessment of the upper and lower extremities. You will learn to evaluate injuries and medical problems using a risk management format (a systematic evaluation to eliminate potential, serious, underlying problems). RNs and LPNs will earn 6 contact hours for attending this workshop. Approval is pending for other health professionals.

$54.00

XNC 2360
Psychotherapy Made SimpleR
This workshop identifies and elaborates basic concepts of the psychotherapeutic process. Beginning with how to greet the client and concluding with planning and carrying out termination, this workshop will explore the essential ingredients of the successful therapy practice. Of interest to both new and experienced therapists. Advanced practice mental health nurses, psychologists, social workers and licensed counselors will earn 6 contact hours for attending this workshop.

$69.00

XNC 2361
Attachment and Hunger: Understanding the Client with An Eating Disorder
This presentation will focus on the diagnosis and treatment of eating disorders within the context of connection and attachment. Nurturing care with balanced limit setting will be explored. RNs, LPNs, LMHTs, social workers, psychologists and counselors will earn 6 contact hours for attending this workshop.

$54.00

XNC 2362
Potassium: Maintaining the Balance
This program, available in JCCC labs, provides an overview of the role and function of potassium in the body, as well as measures to correct potassium imbalance. RNs and LPNs will earn 1 contact hour for completing this course. ACHAs will earn 1 (RC) contact hour.

$12.00

XNC 2363
Nursing and the Law
This course, available in JCCC labs, defines legal terms pertinent to nursing practice, explains the role of the state legislature in regulating nursing practice and discusses the relationship between negligence and malpractice. RNs and LPNs will earn 1 contact hour for completing this course. ACHAs will earn 1 (A) contact hour.

$12.00

XNC 2364
Care of the Client Experiencing Anxiety
Presented as a computer-based module in JCCC’s open lab, this course discusses various anxiety-related disorders, including social phobia, post trauma stress disorder, obsessive compulsive disorder and hypochondriasis. RNs, LPNs, LMHTs and social workers will earn 1 contact hour for completing this course. ACHAs will earn 1 (RC) hour.

$12.00
XNC 2365

Care of the Client with Peptic Ulcer Disease

This course provides a comprehensive overview of peptic ulcer disease, including causes, nursing interventions, medications and client teaching needs. RNs, LPNs and LMHTs will earn 1.5 contact hours for completing this course. Kansas ACHAs will earn 1.5 (RC) hours.

$18.00

XNC 2366

Clinical Management of Individuals with Alzheimer's Disease

As our population ages, the emotional and behavioral problems associated with Alzheimer's Disease and other forms of dementia are becoming increasingly significant for both families and health care providers. This comprehensive workshop will examine the Alzheimer's Disease process from a neurological viewpoint, emphasizing the changes that result in behavioral and psychiatric problems for these individuals, their families and caregivers. Environmental, pharmacologic and interpersonal interventions will be discussed with an emphasis on understanding the demented person's world and changing needs. Medications commonly used to treat both Alzheimer's Disease and the behavioral changes that occur will be discussed also. RNs, LPNs and LMHTs will earn 6 contact hours for attending this program. Kansas ACHAs will earn 6 (RC) hours.

$54.00

XNC 2367

Religious Diversity in Health Care: A Foundation for Holistic Care

Historically, health care has focused on caring for and curing the body and mind, excluding the spiritual dimension of our triune nature. The wall between medical science and spirituality is now coming down! We recognize that effective treatment requires consideration of the whole person---body, mind and spirit. In this course, participants will explore the complementary relationship between spirituality in a religiously pluralistic society and the care provided to patients. Participants will identify approaches for meeting the spiritual needs of individuals from various religious traditions. RNs, LPNs, LMHTs, social workers, psychologists, counselors, clergy, dentists and dental hygienists will earn 6 contact hours. ACHAs will earn 6 (RC) hours. Approval is pending for other health professionals.

$54.00

XNC 2368

Understanding Lab Values

This practical program will provide you with a clear understanding of various lab tests, when and why they are indicated and what their values mean. You will discuss routine lab tests and their implications as well as overview cardiac and liver enzymes. RNs and LPNs will earn 4 contact hours for attending this workshop.

$48.00

XNC 2369

Naturopathic Medicine: Philosophy, Modalities

Naturopathic medicine, also known as natural or holistic medicine, has experienced a tremendous resurgence in the last two decades as a health conscious public seeks alternatives in health care. In this informative course, you will explore the philosophy and therapeutic modalities of naturopathic medicine, including nutritional medicine, botanical medicine and homeopathy. You will learn the clinical indications, mechanism of action, side effects and contraindications of a wide variety of natural medicines commonly used today---CoQ10, DHEA, Hypericum (St. John's Wort), Ginke, Ginseng and others. You will also gain an understanding of the education, training and role of the naturopathic physician,
allowing you to answer your patients’ questions with greater knowledge and confidence. RNs, LPNs, LMHTs and dietitians will earn 3 contact hours. Approval is pending for OTs and PTs.

$36.00
XNC 2370
Pharmacology of Depression: Familiar Pathways and New Frontiers
This course will allow you to take an in-depth look at depression with special emphasis on the receptors and the neurotransmitters involved. You will study serotonin, dopamine, norepinephrine and other neurotransmitters believed to be involved with depression, as well as the different anatomical pathways in the brain responsible for depression, obsessive compulsive disorder, panic disorder and eating disorders. You will review traditional drugs such as the selective serotonin re-uptake inhibitors (SSRIs) and tricyclics (TCAs) and learn about newer agents now available. You will also examine the pharmacology, side effects and interaction potentials with other drugs. This course will provide an excellent review of depression and introduce cutting-edge concepts and research about new serotonin receptors, new treatments and combination drug therapy. RNs, LPNs and LMHTs will earn 3 contact hours for attending this course. Approval is pending for other health professionals.

$27.00
XNC 2371
Obsessive Compulsive and Anxiety-related Disorders in Children
Although obsessive compulsive (OCD) and anxiety-related disorders are believed to affect only 3-5% of children under age 16, the symptoms and experiences of these children are often misunderstood and misdiagnosed. Families are confused and often feel helpless as their child battles internal anxiety and the overpowering urge to perform or avoid behaviors/rituals that give only temporary relief to overwhelming anxiety and fear. Since many symptoms associated with OCD or anxiety disorders can also be found in children with attention deficits, learning challenges, Tourette’s Disorder and depression, thoughtful consideration will be given to making the correct diagnosis as well as identifying therapeutic treatment/management approaches, including the importance of developing a team approach to assist the child experiencing these challenges. RNs, LPNs and LMHTs will earn 3 contact hours for attending this course. Approval is pending for other health professionals.

$27.00
XNC 2372
Immunization: You Call the Shots (Parts 1 & 2)
Presented on computer disk, this program is a two-part series. It provides a comprehensive overview of currently accepted immunization practices. RNs, LPNs and LMHTs will earn 6 contact hours for completing this course.

$66.00
XNC 2373
Musical Solutions for Everyday Problems
Music is good for us! We intuitively know this and accept it without question. But do we know why it is not only good for us, but needed for optimal development and well being? In this workshop, you will learn what The Mozart Effect is and why it is important. You will discuss high and low frequency sounds and learn how they relate to health. You will discuss the art of listening, hear the latest research on the relationship between the ear and the brain and explore how this can be used in children with ADD and other problems. You will see a slide presentation on The Sound Environment and how this impacts our lives and discover how cutting edge hospitals are using sound and music in innovative ways, including music for grieving, music in hospice and how the harp is used to assist dying patients. RNs, LPNs and LMHTs will earn 6 contact hours for
attending this workshop. Kansas ACHAs will earn 6 (RC) hours. Approval is pending for other health professionals.

$54.00
XNC 2374

Pain Management: Integrating Complementary Therapies
into Traditional Regimens According to The American Pain Society, pain is often undertreated, causing suffering and financial loss to individuals and to society. As a practicing health care professional, you can cite numerous cases to verify this assumption. In addition, Joint Commission on Accreditation of Organizations (JCAHO) acknowledges pain as a coexisting condition with many diseases and injuries and has included new pain management standards for compliance in 2001. In this experiential workshop, you will examine the mind/body connection as well as learn principles of psychoneuroimmunology. You will explore a variety of complimentary therapies, allowing you to individualize your treatment plans and increase your effectiveness as a practitioner. RNs and LPNs will earn 7 contact hours for attending this workshop. Approval is pending for other health professionals.

$63.00
XNC 2375

Taking Off the Mask: Feeding the Hunger Within
Depression, anxiety, marital problems or stress! Traditionally, our clients have presented with symptoms of one of these problems. In recent years, we have been challenged by an increasing number of individuals presenting with feelings of emptiness, being numb or being unable to develop or sustain relationships. Rather than focus on symptoms, this workshop will examine ways clients can lead a fuller life. It will explore issues of attachment, identity, boundary and spirituality as well as barriers to meaningful relationships. RNs, LPNs, LMHTs will earn 6 contact hours for attending this workshop. Kansas ACHAs will earn 6 (A) hours. Approval is pending for other health professionals.

$54.00
XNC 2376

Intrapartum Bleeding Disorders
Few emergencies are as frightening as intrapartum hemorrhage. The causes of hemorrhage during the birth process are numerous and determining the etiology of the problem requires a sound understanding of maternal-fetal physiology. In this program, you will review maternal-fetal and uteroplacental physiology, examine problems that may result in intrapartum hemorrhage—placental abnormalities, coagulation defects and uterine problems, and explore interventions to improve outcomes when intrapartum hemorrhage occurs. RNs and LPNs will earn 3 contact hours for attending this workshop.

$27.00
XNC 2377

Making Pathophysiology Work in Your Practice:
Endocrine and CNS If you don't work with patients experiencing endocrine and central nervous system disorders often, you may feel challenged to recall the pathological basis of conditions affecting these body systems. In this workshop, you will review the anatomy and physiology related to endocrine and related CNS disorders and discuss clinical features and laboratory changes expected in patients. You will learn the pathogenesis, clinical characteristics, supporting lab data and assessment procedures for a wide variety of endocrine and neurological disorders as well as how to utilize this information to strengthen your everyday practice. RNs and LPNs will earn 6 contact hours for attending this workshop.

$54.00
XNC 2378
The Compassionate Heart: Dealing with Life-limiting Illness, Death and Grief

From the moment an individual learns they have a life-limiting illness, their life and the lives of everyone close to them will never be the same again. Life has changed---with change comes loss, with loss comes grief and with grief comes the opportunity to feel, learn and grow into someone more than we were before. In this workshop, you will examine some of the physical, mental, emotional and spiritual aspects of life-limiting illness, death and loss. You will also examine the pain of the grieving process and discover the healing, hopeful power it can bring. Whether you’re dealing with the challenges of a life-limiting illness professionally or on a personal level, developing a compassionate, understanding and loving heart can help make this time a little less difficult. RNs, LPNs and LMHTs will earn 3 contact hours for attending this workshop. Kansas ACHAs will earn 3 (RC) hours. Approval is pending for other health professionals.

$27.00

XNC 2379

Seizures and Epilepsy: An Overview of Current Management

A diagnosis of seizures/epilepsy can be frightening and health care professionals are in a unique position to provide factual information about the management of this condition. This workshop will provide an overview of this important topic, beginning with the classification of seizures. You will explore the epidemiology and evaluation of seizures/epilepsy, review videos of various seizure types and discover how to differentiate non-epileptic spells (e.g. syncope and pseudoseizures) from epilepsy. You will also discuss therapeutic strategies to eliminate seizures, including vagal nerve stimulators and brain surgery. The impact of epilepsy on the life of the individual and family will also be discussed. RNs and LPNs will earn 3 contact hours for attending this workshop. Kansas ACHAs will earn 3 (RC) contact hours.

$27.00

XNC 2380

Prevention and Management of Back Injury

Oh, my aching back! This disabling complaint will affect an estimated one out of four people this year and many of these people will be health care professionals! In this workshop, an advance practice nurse and a physical therapist will join forces to explore this common problem. You will discuss spinal anatomy, the etiology of common injuries and various treatment options, including medication, physical therapy and specialist treatments. You will also focus on preventive and rehabilitative aspects of back pain, including ergonomics and fitness. RNs and LPNs will earn 6 contact hours for attending this workshop. Approval is pending for physical therapists and other health professionals.

$54.00

XNC 2381

Hit Parade of Prescribed Drugs: The Top 100

Which drugs make up the top 100 list? Why are these drugs important and why are they prescribed more than others? Are they safer than similar drugs? Is cost the driving force? Do the multi-million dollar drug companies we hear so much about play a significant part in drug selection? Take a critical look at the top 100 most frequently prescribed drugs, review the characteristics that make them "favourites" and learn why they are prescribed so frequently. Learn why a drug is taken off the market or "banned" by the FDA and discuss the use of herbals and natural products. RNs and LPNs will earn 3 contact hours for attending this workshop. Approval is pending for other health professionals.

$27.00

XNC 2382

Reclaiming Your Life Story

We each carry with us a story of how we arrived at our current place in life. These
stories are made up of generational influences, family of origin experiences, life events and perspectives. This presentation will give you the opportunity to see who the antagonists and protagonists are in your life, what has been the theme of your story to date, and how you can begin to shape and alter the script. A story of pain can be retold as one of empowerment. Come learn how to retell your story from strength and resilience. Information from family systems theory will be intermixed throughout the presentation. RNs, LPNs and LMHTs will earn 6 contact hours for attending this workshop. Approval is pending for other health professionals.

$54.00
XNC 2383
Meditation and Mind/Body Health: You and Your Patient
Meditation is becoming an important part of self-care regimens. However, the effects of meditation, its benefits and its risks are not always well understood. You will explore two major forms of meditation—mindfulness and concentration, learn how meditation is being used in health care settings and which conditions it can help. You will experience four different meditation sessions and get tips on how meditation can be applied to daily life. RNs, LPNs and LMHTs will earn 6 contact hours for attending this workshop. Approval is pending for other health care professionals.

$27.00
XNC 2384
Management of Primary Headache
It is estimated that from 60 to 70 million Americans have experienced some form of headache, making it one of our most common health problems. In this informative workshop, you will explore various causes and types of headache, discuss the prevention and medical management of primary headache and discover various behavioral therapies shown to decrease the frequency and severity of headache pain. RNs, LPNs and LMHTs will earn 3 contact hours for attending this course. Kansas ACHAs will earn 3 (RC) hours. Approval is pending for other health professionals.

$27.00
XNC 2385
Innovative Approaches to Diabetes Management
Type 2 diabetes is reaching epidemic proportions in the United States. Approximately 16 million people have diabetes, but only half are currently diagnosed. Although no cure yet exists for diabetes, our understanding of disease progression and complication escalation in growing each year. In this seminar, you will explore new and innovative approaches to the treatment of pre-diabetic conditions leading to type 2 diabetes, including alternative therapies, dietary variations, and folk remedies. You will also discuss the impact of psychological issues and culture on diabetes care. This seminar will be most beneficial for health care providers who wish to advance their knowledge beyond a basic understanding of diabetes. RNs and LPNs will earn 6 contact hours for attending this workshop. Approval is pending for other health professionals.

$54.00
XNC 2386
The Business of Healthcare: Where Does the Money Go?
Reimbursement, budgets and quality patient care may appear to be in direct conflict with each other. Do you know how reimbursement drives your employer’s budget? Do you know how to provide quality patient care and yet support your employer’s budget? This workshop will explore healthcare reimbursement history, address budget preparation and provide an opportunity for group discussion of case studies that illustrate important concepts related to the business of healthcare. RNs, LPNs and LMHTs will earn 4 contact hours for attending this workshop. Kansas ACHAs will earn 4 (A) hours. Approval is pending for other health professionals.
Engineering Wellness: Nutrition, Exercise and Stress

Management Developing a wellness lifestyle isn't always easy, but it isn't the impossible task we sometimes imagine it to be. Must you impose rigid dietary restrictions, exercise to exhaustion or change your personality type? Absolutely not! In this seminar, you will explore good nutrition and long-term weight management, including the futility/potential harm of popular diets and the use of herbal drugs, supplements, appetite suppressants and caffeine. You will review the benefits of exercise, learn practical ways to incorporate more physical activity into your daily routine and gain tips to reduce stress, fatigue and professional burnout. RNs, LPNs and LMHTs will earn 6 contact hour for attending this workshop. Approval is pending for other health professionals.

Two and Three-headed Dragons: Meeting the Challenge of Dual Diagnosis

Individuals with dual diagnosis, addiction illness coupled with psychiatric illness, are among the most difficult patients to treat successfully. Left untreated, they are likely to demonstrate horrific behavior in forms of violence, self-harm and suicide. In this workshop, you will explore the relationship between addiction and psychiatric illness and learn how a dual diagnosis treatment approach can make an effective difference. You will also discover how treating only one problem while remaining blind to the other, only undermines good treatment. RNs, LPNs and LMHTs will earn 6 contact hours for attending this workshop. Kansas ACHAs will earn 6 (RC) hours. Approval is pending for other health professionals.

Differential Diagnosis, the DSM-IV and Biopsychosocial Assessment

Providing accurate differential diagnoses, using the DSM-IV, is a challenging task for mental health practitioners of all disciplines. While the multi-axial design encourages us to view the individual from multiple perspectives, in reality we tend to concentrate only on Axis I and Axis II criteria. In this program, you will learn to assess the individual's developmental stage, life circumstances, culture, gender and physical status, prior to applying DSM-IV diagnoses. Special emphasis will be given to commonly over-diagnosed and under diagnosed conditions. RNs, LPNs, LMHTs, social workers, psychologists and counselors will earn 6 contact hours for attending this workshop.

Tell Me How It Hurts: Health Care Communication

Based on Personality Preferences Why do some patients comply with your requests, while the same words inflame others? It's probably not WHAT you said, but how they HEARD it. Even under normal circumstances, people don't all react the same. When they're sick, their responses are more complex and even more critical to their well being. Based on the Myers-Briggs Type Inventory (MBTI), this program will help you recognize clues to patients' type preferences and interpret them for more effective communication. RNs, LPNs and LMHTs will earn 7 contact hours for attending this workshop. Kansas ACHAs will earn 7 (RC) hours. Approval is pending for other health professionals.
Depression in the Elderly
The relationship of depression to morbidity will be discussed, as well as the role of psychotherapy and environmental interventions. RNs, LPNs and LMHTs will earn 3 contact hours for attending this workshop. Kansas ACHAs will earn 3 (RC) hours. Approval is pending for other health care professionals.

$36.00
XNC 2392

Complementary Approaches to Women's Health Problems
Women are becoming more knowledgeable regarding choices that may be available for managing menopausal symptoms. And they are asking questions of their health care providers! In this seminar, you will review the physiology of menopause and perimenopause and discuss the pros and cons of conventional and alternative approaches to managing symptoms and preventing long term sequelae of estrogen deficiency. You will also explore nutritional and herbal supplements, Oriental Medicine options, lifestyle modifications, and bioidentical - or so-called "natural" - hormones.  4 contact hours

$36.00
XNC 2393

Meeting the Challenge of Ethical Practice in Mental Health Mental health professionals often face ethical challenges as they address the problems and concerns of their clients. In this important workshop, you will discuss these challenges and examine several ethical orientations that can be used as decision-making tools. Vignettes will be used to provide you an opportunity to think through how to manage ethical dilemmas. You will also review ethical principles and Codes of Ethics from various disciplines. This workshop meets the three-hour ethics requirement for mental health professionals established by the Kansas Behavioral Sciences Regulatory Board. Kansas ACHAs will earn 3 (A) hours.

$27.00
XNC 2394

Exploring the Risk Factors for Cardiovascular Disease Whether for personal or professional reasons, nurses and other health care professionals need a sound understanding of the risk factors for cardiovascular disease. In this workshop, you will review the well-recognized risk factors--family history and genetic predisposition, smoking, diabetes, hypertension and hyperlipidemia as well as lesser risk factors. You will examine each risk factor individually and explore up-to-date treatments and potential nursing interventions. You will review the current NCEP 2 treatment guidelines, learn about the upcoming NCEP 3 anticipated guidelines and discover how these changes will impact practice. This class will be helpful not only for patient care but also for yourself and your family. RNs and LPNs will earn 3 contact hours for attending this workshop. Approval is pending for other health professionals.

$27.00
XNC 2395

Becoming a Quitter: A Guide to Smoking Cessation Smoking contributes, directly or indirectly, to 20% of all deaths in the United States annually. More than 400,000 smokers die each year from the effects of smoking. Are you concerned about your patient’s tobacco use, but feel unable to help? Is a family member or friend experiencing health problems related to smoking? Are you a smoker and wonder what methods are available to help you quit? This workshop will answer your questions and offer effective strategies for smoking cessation. RNs, LPNs and LMHTs will earn 3 contact hours for attending this workshop. Kansas ACHAs will earn 3 (RC) hours. Approval is pending for other health professionals.
Chemotherapeutic Regimens This course will briefly review rheumatologic disease and focus on old and new drug therapy regimens. The treatment goals for inflammatory disorders have remained constant for the past several years and include relief of pain, prevention of joint destruction and deformity and maintenance or restoration of preferred lifestyle. New therapies such as inhibitors of cytokine interleukin-1 and tumor necrosis factor along with monoclonal antibodies are changing current research efforts and treatment modalities. RNs and LPNs will earn 3 contact hours for attending this seminar. ACHAs will receive 3 (RC) continuing education hours. Approval is pending for other health care professionals.

Information Management: Internet Basics
This course is presented on CD for home use and as a computer-based module in JCCC's open lab. It explains how it can benefit healthcare professionals, including information about e-mail, listServes, netiquette and searching the World Wide Web. RNs, LPNs and LMHTs will earn 1.5 contact hours for completing this course. Kansas ACHAs will earn 1.5 (E) hours.

Care of Clients With Sexually Transmitted Diseases
Presented as a computer-based module in JCCC's open lab, this course provides a comprehensive overview of common sexually transmitted diseases, including signs and symptoms, patient teaching and pathophysiology required for nursing assessments and interventions. RNs, LPNs and LMHTs will earn 1.5 contact hours for completing this course.

Antithrombotic Therapy in the Emergency Setting
Learn the basic pharmacology, therapeutic indications, contraindications, adverse effects and monitoring parameters for the use of antiplatelet drugs, anticoagulants and thrombotic drugs in urgent and emergent settings. RNs and LPNs will earn 3 contact hours for attending this workshop.

Medicine Ways of Our Ancestors: Native American
Spirituality Energy Medicine, considered the cutting edge of scientific thought, is actually very old. Shamans, wise women, medicine men and sages have practiced it for over five thousand years. Our ancestors understood the true meaning of healing—restoration, reintegration, reunion and reconnection of one's Spirit. To the healing sound of drum, voice and rattle, explore the dreamtime, that realm of no time and no space where all spiritual healing is effected. RNs, LPNs, LMHTs, social workers, counselors, LMTs, dentists and dental hygienists will earn 6 contact hours. ACHAs will earn 6 (E) hours. Approval is pending for OTs and PTs.
Homeopathy: An Introduction to Principles,
Practices and Commonly Prescribed Remedies

The word homeopathy, derived from the Greek words for similar and illness/suffering, is based on the theory that a substance can cure the same problems it causes. You will explore how homeopathy differs from conventional medicine, what kinds of conditions it treats and some of the commonly prescribed remedies—Arnica, Sulphur, Sepia and more. RNs and LPNs will earn 3 contact hours for attending this workshop. Approval is pending for other health professionals.

$27.00
XNC 2402

Dealing with Aging Relatives: Care Along the Continuum

As our population ages, issues related to the care of our elderly are becoming increasingly important. Who are the caregivers and why are they caring? What happens in families as the demands of caring for aging relatives increase? How do you help guide families in making tough decisions and talking about difficult issues? How do you balance care giving with a career, healthy self-care and other family relationships? This seminar will address the issues that are of primary concern for both elders and caregivers. Particular focus will be on family dynamics, how issues present themselves in mental health and medical settings and what community resources are available. Enrollment is limited to 54. RNs, LPNs, LMHTs, social workers, counselors, dentist and dental hygienists will earn 6 contact hours for attending this seminar. ACHAs will earn 6 (RC) hours.

$54.00
XNC 2403

OSHA Standards as They Apply to the Healthcare Workplace

There have been updates to the Bloodborne Pathogen Standard, Recordkeeping Standard and General Industry Standard that will affect your OSHA compliance program. You need to know the latest information for your healthcare workplace to be in compliance with OSHA regulations. This course will satisfy the required annual training for OSHA’s Bloodborne Pathogen Standard and cover health care requirements of the Hazard Communication Standard and the General Industry Standard. RNs, LPNs, dentists and dental hygienists will earn 6 contact hours for attending this workshop. Approval is pending for other health professionals.

$54.00
XNC 2404

Take Charge: Leave Chronic Fatigue Syndrome and Fibromyalgia Behind

Chronic fatigue syndrome and fibromyalgia currently afflict approximately 8-10 million people in the U.S. Many more go undiagnosed and ineffectively treated. This program will discuss physical and cognitive barriers to overcoming these illnesses and present strategies for healing these conditions. Strategies will focus on the whole person. RNs, LPNs and LMHTs will earn 5 contact hours for attending this workshop.

$45.00
XNC 2405

Those Mysterious Movement Disorders

"Movement disorders" encompass a broad array of disease processes, including "restless leg syndrome," ataxia, dystonia, essential tremor, Parkinsonism, spasticity and others. This workshop will explore the evaluation, management and care of these conditions. RNs and LPNs will earn 3 contact hours for attending this workshop. Kansas ACHAs will earn 3 (RC) hours.

$27.00
XNC 2406
Solving Workplace Challenges: 2002 and Beyond
The growing complexities of our changing society are adding challenges to the workplace and traditional thinking patterns seem insufficient for solving them. Meanwhile, staffing challenges and questions posed by a diverse workforce remain unanswered. Are realistic solutions to these issues possible? You bet! Don't miss this exciting seminar. RNs, LPNs and LMHTs will earn 6 contact hours for attending this workshop. Kansas ACHAs will earn 6 (A) hours. Approval is pending for other health professionals.

$54.00

XNC 2407

If I'm Their Leader, Which Way Did They Go? The Art of Caring Leadership
Health Care is a business and business research reveals that as high as 75% of all staff are committed to their employer and truly desire to provide quality performance. Their ability to retain that commitment to excellence is governed most by the quality of the leadership they receive. Yet in this present atmosphere of flattened organizational charts, increased direct service of "working managers" and general distrust of people in authority, quality leadership is sorely lacking. This seminar provides the nuts-and-bolts "how to's" of leadership and of influencing staff to eagerly follow. It will be of special interest for health care managers. RNs, LPNs, LMHTs, social workers, LMTs, dentists and dental hygienists will earn 6 contact hours. ACHAs will earn 6 (A) hours. Approval is pending for OTs and PTs.

$72.00

XNC 2408

Uppers, Downers and All-Arounders
Take a whirlwind tour of the drugs that are abused in our society, from amphetamines, to opiates, to hallucinogens. Explore the brain to uncover the biochemistry of addiction and look at how to utilize this information in the recovery process. Take a look at the latest drugs used in the treatment of addictions as well as important aspects surrounding prescription and street drugs of abuse. RNs, LPNs and LMHTs will earn 6 contact hours for attending this workshop. Kansas ACHAs will earn 6 (RC) hours for attending.

$54.00

XNC 2409

Evolutions and Revolutions in Women's Health
This workshop will present a clinical examination of the impact of the women's movement of the past 40 years. Young girls are increasingly susceptible to a dysfunctional peer and media culture. Adult women remain reluctant to make healthy physical and emotional choices. RNs, LPNs, LMHTs, social workers, counselors, psychologists, dentists and dental hygienists will earn 6 contact hours for attending this seminar. Approval is pending for other health care professionals.

$54.00

XNC 2410

Mindful Practice: Using Meditation for Personal and Professional Growth
Mindfulness is about developing your awareness skills. As you do this, you will experience increased insight, decreased stress and a more fulfilling life. In this workshop, you will learn about and practice mindful meditation. Through active experiences, you will increase your understanding of meditation and how to apply meditative techniques in daily life. The workshop will involve meditation, experiential exercises and group discussion. RNs, LPNs and LMHTs will earn 4 contact hours for attending this workshop. Approval is pending for other health professionals.

$36.00

XNC 2411
Managing Behavior Problems in the Elderly
Have you ever heard an elderly person referred to as a "mean old man" or "nasty old lady"? Often elderly people do exhibit problem behaviors, but rarely are these the result of being mean or nasty. In this seminar, you will identify common causes of behavior problems in elderly clients and plan practical environmental, interpersonal and medical interventions. RNs, LPNs and LMHTs will earn 3 contact hours for attending this workshop. Kansas ACHAs will earn 3 (RC) hours. Approval is pending for other health professionals.

$27.00
XNC 2412

Bringing Home to Those Who Can’t Go Home
Home is the primary environment in which you develop and reinforce your sense of identity. It is there that you gain a sense of history and roots. Your home is a unique expression of who you are; it serves as a vessel for your memories and your relationships with family and friends. In this moving workshop, you will explore ways to help nurture that sense of home and personal identity so often lost in sick and institutionalized patients. Deanna Edwards will share her musical talents to show you how to accomplish this goal. RNs, LPNs and LMHTs will earn 6 contact hours for attending this workshop. Kansas ACHAs will earn 6 (RC) hours. Approval is pending for other health professionals.

$54.00
XNC 2413

When Drugs Don’t Kill Bugs: Antibiotic Resistant
Bacteria Explore past, present and future trends of antibiotic resistant bacteria, including the impact of this phenomenon on patient care, patient outcomes and the health care economy. RNs and LPNs will earn 3 contact hours for attending this workshop. Kansas ACHAs will earn 3 (RC) hours.

$36.00
XNC 2414

Understanding Asperger and Other
Pervasive Developmental Disorders Pervasive Developmental Disorders (PPD) represent a spectrum of disorders that generally involve impairment in social relatedness, communication skills and eccentric interests, rituals or stereotypes. Asperger Disorder, one disorder within the PDD spectrum, is frequently compared to autism due to a number of shared behavioral similarities. Unlike autism, however, individuals with Asperger Disorder do not tend to display language delay, but rather exhibit severe impairment in social interactions as well as a restricted repertoire of behaviors, interests and activities. In this seminar, the characteristics of Asperger Disorder will be explored plus you will learn why differential diagnosis of this condition is a complex process. There will be a focus on issues regarding social relatedness and appropriate social interventions. RNs, LPNs, LMHTs, social workers, psychologists, counselors, dentists, and dental hygienists will earn 3 contact hours for attending this workshop. Approval is pending for other health care professionals.

$27.00
XNC 2415

GI Drugs: How Do You Spell Relief for GI Problems?
How do you spell relief for digestive problems that can range from minor inconveniences to major illnesses? This practical seminar will review gastrointestinal disorders, discuss the most common GI medications and explore important drug interactions with these agents. RNs and LPNs will earn 3 contact hours for attending this workshop. Kansas ACHAs will earn 3 (RC) hours.

$27.00
XNC 2416
Finding the Courage to Care: Looking In and Reaching Out
These are tough, yet hopeful times for health care professionals. Critical voices, impossible constraints and unreasonable demands can cause us to lose heart. This seminar will help health care professionals take heart and dare to care. RNs, LPNs and LMHTS will earn 6 contact hours for attending this workshop. Kansas ACHAs will earn 6 (A) hours.

$54.00
XNC 2417

The Silent Epidemic: Alcoholism in the Elderly
Among today's 25 million Americans age 65 and older, there are an estimated 2.5 to 3.7 million that are addicted to alcohol. What is perceived as frailty, senility, or simply the unsteadiness of old age may be alcoholism. This program will explore the depth of the problem in our elderly citizens, and how to recognize and successfully treat it in the geriatric client. RNs, LPNs and LMHTs will earn 3 contact hours for attending this workshop. Kansas ACHAs will earn 3 (RC) hours.

$27.00
XNC 2418

Spanish 101 for Health Care Professionals
Having a grasp of elementary Spanish phrases can serve to meet patients' basic needs and provide a welcoming atmosphere. Learn Spanish pronunciation, basic grammar and helpful phrases. Resources will be shared and discussion of relevant cultural aspects will be included. RNs, LPNs and LMHTs will earn 6 contact hours for attending this workshop. Kansas ACHAs will earn 6 (E) hours.

$54.00
XNC 2419

Innovations in Cardiac Surgery
Dramatic changes have occurred in the management of cardiac surgical patients in the last decade. Surgical techniques have undergone exciting changes too--off-pump coronary artery bypass, transmyocardial revascularization and artificial heart implantation to name just a few. This seminar will explore current issues and emerging techniques as well as discuss the impact of evolving technology. RNs and LPNs will earn 3 contact hours for attending this workshop.

$27.00
XNC 2420

Bulletproof Confidence
Celebrities Michael Jordan and Oprah Winfrey generate bulletproof confidence from "feeling" brain centers that are not influenced by "thinking" centers or the thought- based techniques used in self-confidence programs. This new feeling-based program helps you uncover these instinctive, primordial "I-can-do-anything" feelings that, unfortunately, most of us have suppressed. RNs, LPNs, and LMHTs will earn 6 contact hours for attending this workshop. Kansas ACHAs will earn 6 (A) hours.

$54.00
XNC 2421

Managing Anxiety in Today's World
In the uncertainty of today's world, stress cannot be avoided--but it can be managed. This workshop will examine how we can distinguish normal fears and anxieties from serious anxiety disorders. It will focus on ways to make anxiety work for you and your clients in today's uncertain times. RNs, LPNs and LMHTs will earn 4 contact hours for attending this workshop. Kansas ACHAs will earn 4 (A) contact hours.
$36.00
XNC 2422

Your Nursing Practice: A Potpourri of Legal Issues
Today’s nurses have many concerns about the legal aspects of their practice. This seminar will address three important aspects—defensible charting, malpractice and liability issues, and your rights as an employee. RNs and LPNs will earn 6 contact hours for attending this workshop. Kansas ACHAs will earn 6 (A) hours.

$54.00
XNC 2423

Integrative Therapies for Labor Comfort
Explore the use of nurse-friendly, non-invasive interventions, including the therapeutic uses of music, massage, aromatherapy and birth balls to enhance support of the laboring and birthing woman. RNs and LPNs will earn 3 contact hours for attending this workshop.

$27.00
XNC 2424

Old Isn’t Old Any More: Normal Aging in the 21st Century
At the turn of the 20th century life expectancy for females was 47 years; males slightly less. Today it is almost 80 years. The process of aging is not the same as it was 100 years ago. We must redefine what is normal and what is not. This seminar will explore normal changes that occur with aging as well as ways to slow this process. RNs, LPNs and LMHTs will earn 3 contact hours for attending this seminar. Kansas ACHAs will earn 3 (RC) hours.

$27.00
XNC 2425

Stress Management from the Inside Out
Do you think you can’t manage your stress because all the things that stress you out—your job, your boss, your spouse, the “system”—are things you can’t change? Do you feel “stuck”? Learn how to use your mind and your activities to help create health and peace in your life. RNs, LPNs and LMHTs will earn 3 contact hours for attending this workshop. Kansas ACHAs will earn 3 (A) hours.

$27.00
XNC 2426

Understanding Conditions of the Liver
Review the role and functions of the liver. Explore the pathophysiology and evaluation of various liver conditions and understand liver function studies often seen in patient records. RNs and LPNs will earn 5 contact hours for attending this workshop.

$45.00
XNC 2427

The Heart of Healing: Providing Compassionate Care
Technological advances, budget challenges and calls for improved productivity contribute to the growing complexity of the healthcare environment. In spite of this complexity, the person seeking healthcare services is a human being in need of healing. For this reason, offering compassionate care within our high tech, fast-paced work environments has never been more important. RNs, LPNs and LMHTs will earn 6 contact hours for attending this workshop. Kansas ACHAs will earn 6 (RC) hours. Approval is pending for OTs and PTs.
Management of Peripheral Lymphedema
One out of eight women will develop breast cancer over the course of their lifetime. Twenty percent of these women will develop lymphedema. This workshop will explore strategies to prevent, identify and manage this debilitating condition. RNs and LPNs will earn 3 contact hours for attending this workshop. Kansas ACHAs will earn 3 (RC) hours. Approval is pending for other health professionals.

Premenstrual Syndrome and Menopause: A Natural Medicine
Approach Millions of American women experience unpleasant symptoms because of premenstrual syndrome or menopause. Explore the role of hormones in these conditions and discover how natural and synthetic hormone replacement therapy can impact them. Learn to use dietary and lifestyle changes as well as nutritional supplements and botanical therapies to improve general health and sense of well being. RNs, LPNs and LMHTs will earn 3 contact hours for attending this workshop.

Medical Coding Certification Course
This class will study medical coding using the latest curriculum approved by the American Academy of Professional Coders (AAPC). Individuals who complete the course are then ready to sit for the national AAPC exam. Student workbooks are included in the fee. In addition, CPT, ICD-9-CM and HCPCS are required books and are available for purchase in the JCCC bookstore. A three installment payment plan is available for this course.

Chemotherapy Today: Principles, Practices and Complications
Learn the basic principles behind chemotherapy, including multiple dosing regimens and targeting specific areas of the cell cycle with multiple drug regimens. Examine side effects and dose limiting toxicities of specific, commonly used chemotherapeutics. Review oncologic emergencies. RNs and LPNs will earn 3 contact hours for attending this workshop. Kansas ACHAs will earn 3 (RC) hours.

The Decision to Forgive
The decision to forgive after a wrong is sometimes easy, at other times very difficult. In this workshop, you will explore the complex concept and process of forgiveness: the pros, the cons, the risks and the benefits. Gaining more clarity regarding this issue will enhance your personal life as well as your professional life. RNs, LPNs, LMHTs and social workers will earn 3 contact hours for attending this workshop.

Understanding Latino Diversity in Health Care
America’s Latino citizens come from dozens of nations and all races. Learn about the similarities and dramatic differences among Hispanic groups and the historical
events that shape Latino culture today. Discover how Latino citizens from various backgrounds experience health and illness and explore factors that define quality care for your Latino patients. RNs, LPNs, LMHTs, social workers and counselors will earn 4 contact hours for attending this workshop. Kansas ACHAs will earn 4 (RC) hours.

$36.00  
XNC 2434  
A Window Into You: Why You Do What You Do  
Ever wonder, "How did I get to be the way I am?" This workshop will allow you to look at some of the contributing factors that create your unique self—your family system, your birth order, your personality and temperament as well as your group or leadership style. RNs, LPNs, LMHTs, social workers, LMTs, and counselors will earn 6 contact hours for attending this workshop.

$72.00  
XNC 2435  
Medical Terminology  
A description is not available for this course.

$69.00  
XNC 2436  
Healthcare Management in a Changing Environment  
The healthcare manager has never been more challenged than in today's ever changing environment. New and aspiring managers are invited to explore current concepts of successful management, including finance and budgeting, communication and delegation, scheduling, ethics, TQM and leadership skills. RNs and LPNs will earn 12 contact hours for attending this workshop. Kansas ACHAs will earn 12 (A) hours. Approval is pending for other health care professionals.

$99.00  
XNC 2437  
Depression: Marital and Family Process  
Depression is a multifaceted symptom that is part of the human's evolutionary inheritance. Although depression is usually thought of as a problem in the individual, Bowen family systems theory sees depression as a symptom of the family system. Using Bowen theory, this seminar presents a map for understanding how marriage and family relationships affect the development and maintenance of depression and how working on oneself in the context of important relationships can influence the course of this symptom. RNs, LPNs, LMHTs, social workers, counselors, psychologists and mental health nurse clinicians will earn 7 contact hours for attending this seminar.

$84.00  
XNC 2438  
Movement Strategies to Manage Chronic Health Conditions  
This experiential workshop explores how different types of holistic movement can be beneficial for specific chronic health conditions, including arthritis, stroke, multiple sclerosis, fibromyalgia, chronic fatigue, osteoporosis and stress. RNs and LPNs will earn 6 contact hours for attending this workshop. Approval is pending for other health professionals.

$54.00  
XNC 2439  
Understanding and Motivating A Real Zoo Around the
Workplace Identify your primary personality style and learn how ingrained behavioral patterns tend to cluster into four basic personality styles. Expand your awareness of individual differences and learn to bring out the best in others, while taking advantage of strengths in the workplace and home. RNs, LPNs, LMHTs, social workers, counselors, dentists and dental hygienists will earn 6 contact hours for attending this workshop. ACHAs will earn 6 (A) hours. Approval is pending for other health care professionals.

$54.00

XNC 2440

Something Old, Something New: Total Joint Replacement
As our population ages, total joint replacement is increasing as an option for joint pain. Disciplines in many areas of health care will likely encounter patients who plan to or have already had a joint replacement. This comprehensive presentation will prepare you to care for the total joint replacement patient across the continuum. RNs and LPNs will earn 3 contact hours for attending this workshop. Kansas ACHAs will earn 3(RC) hours. Approval is pending for OTs and PTS.

$27.00

XNC 2441

New Drugs on the Block
Take a comprehensive look at recently approved drug products in the U.S. Discover how they work, their place in therapy and adverse and drug interactions. RNs and LPNs will earn 3 contact hours for attending this workshop. Kansas ACHAs will earn 3 (RC) hours.

$27.00

XNC 2442

Growing Old Ain’t for Sissies
Getting older is not for the faint of heart. The aging process brings slow, but sure, declines in physical and mental abilities. In this workshop, you will explore normal aging, its liabilities and rewards, as well as the psychological characteristics and physical habits we can adopt to face our senior years with optimism and hope. RNs, LPNs, LMHTs, social workers and counselors will earn 6 contact hours for attending this workshop. Kansas ACHAs will earn 6 (RC) hours.

$54.00

XNC 2443

Attachment and Hunger: Understanding the Client with An Eating Disorder
This presentation will focus on the diagnosis and treatment of eating disorders within the context of connection and attachment. Nurturing care with balanced limit setting will be explored. RNs, LPNs, social workers, psychologists and counselors will earn 6 contact hours for attending this workshop.

$54.00

XNC 2444

Family Caregivers: Meet Their Needs and Improve Patient Outcomes
One out of three families in America is providing care for one of their members---a child using high-tech equipment or an elder with dementia. Family caregivers must depend on health care professionals for direction. Learn how to assess and meet the needs of family caregivers from an interdisciplinary group of experts. Hear the latest research and identify resources in the Kansas City area to obtain further assistance. RNs, LPNs and LMHTs will earn 6 contact hours for attending this workshop. Kansas ACHAs will earn 6 (RC) hours. Approval is pending for other health professionals.
$54.00  
**XNC 2445**  
**Beginning Spanish for Health Professionals**  
Learn the rudiments of conversational Spanish in the health care setting, especially in the context of the therapeutic patient relationship. Vocabulary words, phrases, pronunciation and idioms will be covered as well as basic medical terminology. Cultural considerations of the Hispanic patient will also be considered. RNs, LPNs, LMHTs, social workers and counselors will earn 6 contact hours for attending this course. ACHAs will earn 6 (RC) hours. Approval is pending for other health professionals.

$54.00  
**XNC 2446**  
**Intermediate Spanish for Health Care Providers**  
This course will build on the Beginning Spanish for Health Professionals course and will expand upon the Spanish speaking experience in the healthcare setting. More vocabulary and grammar along with more practical activities will be provided to allow the students to develop their Spanish-speaking skills and speak the language with greater confidence. Cultural aspects will also be discussed. Completion of a beginning Spanish course is a prerequisite for this class. Bring required textbook to class. RNs, LPNs, LMHTs, social workers, counselors, psychologists, dentists and dental hygienists will earn 8 contact hours for completing this course. ACHAs will earn 8 (RC) hours. Approval is pending for other health professionals.

$72.00  
**XNC 2447**  
**Decembered Grief: Grief and Loss During the Holidays**  
The extended "holiday" season can be difficult, draining, and dysfunctional for persons in grief - regardless of the particular loss. Many of the world religions have holidays in December. How can grievers adequately find support while everyone else is celebrating? For some, the holidays "reboot" memories and become a difficult emotional season. Learn what a family member, friend, or health care provider can do to support a griever - especially when this is not the first holiday season. RNs, LPNs, LMHTs, social workers, psychologists and counselors will earn 3 contact hours. ACHAs will receive 3 (A) hours. Approval is pending for other health care professionals.

$27.00  
**XNC 2448**  
**It's Not Like They Were Family or Something! When**  
Friends Grieve in the Workplace "Not on company time!" is an attitude many corporations take toward grieving employees. For many, workplace colleagues become a family of investment. Thus, when a colleague dies, friendgrief is experienced in the workplace. Learn how colleagues and management can work together to create a griever-supportive work environment. RNs, LPNs, LMHTs, social workers, psychologists, dentists and dental hygienists counselors will earn 4 contact hours ACHAs will receive 4 (A) hours. Approval is pending for other health care professionals.

$36.00  
**XNC 2449**  
**Sensitive Communication in Healthcare: In Case We Have To Eat Our Words, Make Sure They Are Tender and Sweet!!**  
This seminar reminds health care professionals of sensitive principles of communication with colleagues, supervisors and customers, particularly when tension or time pressure is running high. It also serves as a wonderful review when communicating with those we are privileged to live with and love. This presentation has been recently
updated to include a current review of the latest research and information on health care communication. RNs, LPNs, LMHTs, social workers, counselors, psychologists, dentists and dental hygienists will earn 6 contact hours. ACHAs will earn 6 (A) hours. Approval is pending for other health professionals.

$54.00  
XNC 2450  
**OSHA Update for the Healthcare Work Place - 2007**  
This course will satisfy the required annual training for OSHA’s Bloodborne Pathogen Standard and provide an update on OSHA Standards critical to the healthcare work place. Participants attending this course should already have a working knowledge of the OSHA Standards. It is important for healthcare providers to not only know what is required by the OSHA Standards but to also understand the intent and spirit of the standards to ensure their efficient application and to assure a safe working environment. OSHA compliance is essential and required for every healthcare work place. This course is presented as a review and update. RNs, LPNs, LMHTs, dentists and dental hygienists will earn 3 contact hours. ACHAs will earn 3 (A) hours. Approval is pending for OTs and PTs.

$36.00  
XNC 2451  
**Medical Coding for the Experienced Coder: Certification**  
Preparation This course is designed for the experienced coder and will move at a fast pace. The latest curriculum approved by the American Academy of Professional Coders (AAPC) will be utilized and will prepare participants to sit for the national AAPC exam. Course completion does not guarantee passing the exam. There is an additional fee for the exam. Prerequisite: Medical Terminology Course and two years verifiable coding experience.

$899.00  
XNC 2452  
**Pain Management in the Substance Dependent Patient**  
Learn how to properly assess and manage pain in a patient who is currently abusing or has a history of substance dependence. Implementing boundaries in pain treatment plans does this. Boundaries include opioid agreements, random urine drug screens, psychotherapy and frequent appointments. Appropriate pain treatment plans should have both pharmacologic and nonpharmacologic components. RNs, LPNs, LMHTs, social workers, psychologists, counselors, dentists and dental hygienists will earn 4 contact hours. ACHAs will earn 4 (RC) hours. Approval is pending for other health professionals.

$36.00  
XNC 2453  
**Mood Disorders and Anxiety: Diagnosis and Treatment**  
The program will include didactic and experiential activities that will assist the participant in understanding and being able to make the differential diagnoses in each of these DSM-IV categories. Participants will learn the epidemiology, etiology, diagnostic criteria, and recommended treatments for each diagnosis. Additional topics will include interactions with other diagnoses and ethics with regard to clients with these diagnoses. Experiential activities will include the application of therapeutic interventions to themselves in order to facilitate awareness and understanding, and the review of real case scenarios for practice in diagnosis and treatment management. This program meets social worker requirement for DSM-IV education. RNs, LPNs, LMHTs, social workers, psychologists and counselors will earn 6 contact hours. ACHAs will earn 6 (RC) hours.

$54.00
XNC 2454

Give Me Your Tired, Your Poor: Ethics and Cultural Competency

"Give me your tired, your poor, your huddled masses yearning to breathe free," is inscribed at the base of the Statue of Liberty. No where is that invitation more realized than for those who deliver health care! Today's patient population presents cultural challenges that at times seem overwhelming. This course begins with the use of a dramatic monologue, "Bonita and Her Children," performed by nurse dramatist, Julie Russell. Helen Emmott, community ethicist, will follow with ethical theory and facilitation of participant self-reflection. With the presenters' unique methodology, you will journey from reaction to practical response, better preparing participants to meet the challenges of cultural issues. Active listening, narrative ethics and the ethic of care will be utilized. RNs, LPNs, LMHTs, social workers, psychologists, counselors, dentists and dental hygienists will earn 3 contact hours. ACHAs will earn 3 (A) hours. Approval is pending for other health professionals.

$27.00

XNC 2455

What Every Nurse Needs to Know About Cancer

As people live longer, the number of people affected by cancer is increasing. In June 2000, the human genome was unraveled and began influencing the recognition of people at risk for developing diseases. In cancer, it opened the door to identifying risk factors for developing cancer, defining the type of cancer, as well as developing new treatment strategies. With this information, new breakthroughs have resulted in earlier diagnosis of cancer and less toxic treatments. In this seminar, the causes of cancer will be reviewed, and explanation of how the human genome project has influenced risk identification, cancer screening and diagnosis, and treatment will be discussed. A panel of high risk individuals will discuss how high risk individuals are empowered to control that risk. RNs and LPNs will earn 6 contact hours for attending seminar.

$40.00

XNC 2456

Holistic Strategies for Managing Chronic Pain

According to the American Pain Society, pain is often undertreated, causing suffering and financial loss to individuals and to society. Considering the multidimensionality of pain, traditional treatment modalities are not always successful. Pain often requires more than medical management. The addition of complementary therapies to traditional treatment is based on the principles of psychoneuroimmunology, or the mind/body connection. In this experiential workshop, participants will discuss current research on complementary techniques, experience techniques first hand, and begin to develop a plan to integrate techniques into daily life and patient care. RNs, LPNs and LMHTs will earn 6 contact hours for attending this workshop. ACHAs will receive 6 (RC) hours. Approval is pending for other health professionals.

$54.00

XNC 2457

Baby Boomers are Busting Out All Over

This seminar will provide an overview of the so called "baby boom" generation. The session will provide a demographic profile and then identify the effects of this generation on numerous American social institutions such as the family, the economy, and the health care industry. Methods of working with "baby boomers" who have aging parents will also be included. RNs, LPNs, and LMHTs will earn 3 contact hours. ACHAs will earn 3 (A) hours.

$27.00

XNC 2458

The Silent Epidemic: Alcohol and Prescription Drug
This workshop explores the seriousness of this problem and ways in which to become involved and help break the cycle of these addictions. RNs, LPNs, LMHTs, social workers, counselors, psychologists, dentists and dental hygienists will earn 3 contact hours. ACHAs will earn 3 (RC) hours. Approval is pending for other health professionals.

$36.00

**XNC 2459**

**Creative Patient Education: How To Teach So That**

Patients Will Learn Positive educational outcomes are the goal of patient teaching encounters. Declining lengths of stay have made attaining those goals more challenging. Have you wondered if it is possible to provide patients essential information in today’s rapid delivery healthcare environment? Despite the challenges such an environment poses to professionals, shortened lengths of stay have intensified the need for effective patient education. Leaving the hospital sooner and often with complicated care requirements, patients and families are expected to manage increasingly complex care. Creative approaches to patient education are essential so that we may prepare individuals for life beyond the hospital. This program will provide realistic, practical, and creative approaches to give patients the education they need to be successful. RNs, LPNs, LMHTs and social workers will earn 6 contact hours. Approval is pending for other health care providers.

$54.00

**XNC 2460**

**What’s Bugging You? Update on Tick Borne Illness and Infectious Diseases**

This program will provide information about the symptoms, evaluation and management of various insect borne and infectious diseases affecting Americans currently. These diseases include: west nile virus, SARS, anthrax, lyme disease, erlichiosis, rocky mountain spotted fever, malaria, hanta virus, plague, tularemia, typhus, babesiosis, tick paralysis, relapsing fever, eastern equine encephalomyelitis and St. Louis encephalitis. RNs, LPNs and LMHTs will earn 3 contact hours. ACHAs will earn 3 (RC) hours.

$36.00

**XNC 2461**

**Nursing Assessment of Patients with Cardiac Disorders**

Nursing assessment is the foundation for providing care. Proficiency in conducting a concise and systematic history and physical assessment is a key element. This program will provide the nurse with the skills to perform an adult cardiac assessment and to differentiate between normal and abnormal findings. RNs and LPNs will earn 4 contact hours. ACHAs will receive 4 (RC) hours.

$36.00

**XNC 2462**

**Sixty, Seventy and Suddenly Single**

Aging in America is changing the psychosocial make-up of our society in many ways and none so important as widowhood and later life divorce. Historically, these life events were handled in traditional ways by remarrying or often going to live with family. Today, seniors are exploring a number of options not open to them before, and women in particular are leading the way to broader horizons after becoming single again. This workshop explores the ways in which seniors survive and often thrive following the loss of a spouse. RNs, LPNs, LMHTs, social workers and psychologists will earn 3 contact hours. ACHAs will earn 3 (RC) hours.

$27.00

**XNC 2463**
Conscious Anger: Learning to Respond Instead of React

Anger is one of those feelings that is often misunderstood and, in many situations, is just downright scary! We can learn to run from it, deny it, block it, use it as a weapon, or we can learn to see it for what it is - just another emotion that is trying to teach us something about ourselves or someone else. In this workshop, we will explore some of the different facets of anger - the things that influence your particular style of feeling and expressing it, the ways in which the anger of others affects you and the ways in which unexpressed anger shows up. We will also discuss the importance of learning to "pick your battles" wisely in your personal as well as your professional life. RNs, LPNs, LMHTs, social workers, counselors, psychologists dentists and dental hygienists will earn 3 contact hours for attending this workshop. ACHAs will earn 3 (RC) hours. Approval is pending for other health care professionals.

$27.00
XNC 2464

The Compassionate Heart: Responding to the Needs of Your Seriously and Chronically Ill Patients

From the very moment that someone is told that they have a serious or chronic illness, not only their life but the lives of everyone near and dear to them will never be the same again. Life has changed and with the change comes loss, with loss comes grief, and with grief comes the opportunity to feel, to learn, and to grow into someone more than we were before. We will look at some of the physical, mental, emotional and spiritual aspects of someone who is going through this process. Whether you are dealing with the challenges of illness professionally or on a more personal level, developing a compassionate, understanding and loving heart can help to make a very difficult time a little less difficult. RNs, LPNs, LMHTs, social workers, counselors, psychologists, dentists, dental hygienists will earn 3 contact hours for attending this workshop. Approval is pending for other health professionals.

$27.00
XNC 2465

Pharmacologic Interventions for Mental Illness

This course will discuss drug therapies across different mental health disease states with an emphasis on pharmacological mechanisms of actions and side effects. The course will also highlight some of the newer drugs approved by the FDA within the last 3-5 years and the biology of some of the receptors and neurotransmitters involved. This course is designed to be interactive and involve participants in their learning. Your course experience will be enhanced if participants come prepared to talk and ask questions about some of the patients in your own clinical settings. RNs, LPNs, LMHTs, social workers, psychologists and counselors will earn 6 contact hours for attending this workshop. ACHAs will earn 6 (RC) hours.

$54.00
XNC 2466

Long Term Care: Issues, Changes and Approaches for Our Future

Plagued with years of poor reimbursement, bad public image and a staffing crisis, the Long Term Care provider community is now rising above the struggles with new innovations and strategies. Demands will increase due to our aging population, especially within the next 20 years. This seminar will identify some of the issues and discuss their causes. Focus will then be shifted to successful strategies for dealing with those issues and current realities. RNs, LPNs, LMHTs and social workers will earn 3 contact hours. ACHAs will earn 3 (A) hours. Approval is pending for other health professionals.

$27.00
XNC 2467

Nursing Care of the Patient in Renal Failure

This interactive presentation focuses on the common causes, physiological
alterations, clinical manifestations and nursing care of the patient suffering from renal failure. A differentiation is made between acute and chronic renal failure. Current treatments, such as dialysis and organ transplantation will be discussed. An interactive case approach is used to assist participants with learning about renal failure. This is basic introductory presentation. Enrollment is limited to 40. RNs and LPNs will earn 4 contact hours for attending this seminar. ACHAs will receive 4 (RC) hours.

$36.00
XNC 2468
Levels of Healing
This program explores the levels of healing, physical, psychological and spiritual, and the practitioner’s interventions at each of these levels. Beyond meeting the physical, medical needs, learn ways to promote a positive attitude during the healing experience and help your patients find meaning in their pain and suffering. Come and explore how to integrate this holistic approach in your practice. RNs, LPNs, LMHTs, social workers, counselors, psychologists, dentists and dental hygienists will earn 3 contact hours for attending this seminar. ACHAs will receive 3 (RC) hours. Approval is pending for other health care professionals.

$27.00
XNC 2469
Diagnosing and Treating the Continuum of Grief
When loss occurs for individuals the resulting ripple effects of change permeates a family system as individuals move to adjust and adapt to the loss. The grief and mourning journey is unique to each person however there are some commonalities often shared by fellow travelers on the road. This workshop will explore what is referred to as the grief journey. Attention will be given to the following areas: clinical aspects of diagnosing and treating grief; practical interventions to use with those experiencing loss; issues related to trauma; grief over the life span; discussion on the concept of complicated mourning; and cultural considerations in working with people around loss and grief issues. This course meets the requirements for social worker’s DSM-IV annual training. RNs, LPNs, LMHTs, social workers, counselors and psychologists will earn 7 contact hours for attending the seminar. ACHAs will receive 7 (RC) hours. Approval is pending for other health care professionals.

$84.00
XNC 2470
Psychosocial Aspects of Patient Care: Now What Do I Say? Many patients bring multiple emotional issues to the medical setting. In addition to the demands of addressing medical needs, the health professional is often used as a sounding board or confidant on emotional matters. It can be difficult to know what to say or suggest. Intense emotional reactions are common during crisis or anxious times, which can be especially challenging. This workshop is designed for the non-mental health professional. Discussion will center on interactions and interventions one might use to address the non-medical areas of life. RNs, LPNs, dentists and dental hygienists will earn 3 contact hours for attending this workshop. Approval is pending for other health care professionals.

$27.00
XNC 2471
Insulin Resistance: The Path to Metabolic Syndrome and
Diabetes Type 2? Obesity has risen to epidemic proportions in the US today. An estimated 64% of the current population is either overweight or obese. Metabolic Syndrome, the term used to describe a cluster of related medical conditions (including obesity, hyperlipidemia, hypertension and high blood sugar), is also on the rise. An estimated 47 million Americans exhibit symptoms of Metabolic Syndrome. Many of these individuals eventually develop Diabetes Type 2. Can these conditions be identified and treated early to slow or stop the onset of
Diabetes? This lecture will discuss Insulin Resistance (IR) as the root cause of these disorders and propose strategies for early detection and possible prevention of Metabolic Syndrome and Diabetes Type 2. RNs and LPNs will earn 3 contact hours for attending this seminar. Approval is pending for other health care professionals.

$27.00

XNC 2472

Assuring a Safe Working Environment: Applying the OSHA

Standards to the Healthcare Workplace 2004 It is important for Healthcare employers and employees to not only know what is required by the OSHA standards, but also understand the spirit and intent of the standards to provide a safe working environment. OSHA has updated the Bloodborne Pathogen Standard, Recordkeeping Standard and General Industry Standard in the last three years that will affect your OSHA compliance program. You need to know what the latest information is for your healthcare workplace to be in compliance with OSHA regulations. This course will satisfy the required annual training for OSHA’s training. RNs, LPNs, LMHTs, social workers, dentists and dental hygienists will earn 6 contact hours for attending this seminar. ACHAs will receive 6(A) hours. Approval is pending for other health care professionals.

$54.00

XNC 2473

Living in a Culture of Loss

No one is immune from loss. Not in today's business and social climate. Loss of status, employment, marriage, parent(s), spouse, child, sibling, mind, health, financial security and/or integrity are part of the task of navigating life in a loss-centric culture. The motivationalists tell us it’s about "turning lemons into lemonade!" You still end up with sticky lemon pulp and peels. How can one recognize, integrate, and come, over time, to value the loss-the accumulated losses? How can the palette of loss become a resource for personal growth and maturation? It's not what you will do "about" the loss. It's, "What will you do through the loss?" RNs, LPNs, LMHTs, social workers, counselors, psychologists, dentists and dental hygienists will earn 4 contact hours for attending this seminar. ACHAs will earn 4 (RC) hours. Approval is pending for other health care professionals.

$36.00

XNC 2474

Advice Outside of the ER/Office

Nurses are always being asked for advice by friends, neighbors and family. Do you ever wonder if there are limitations on what kind of information or assistance a nurse can give outside of the office? Do you worry about your liability when helping a friend with a medical problem? This lecture will answer those questions and more. RNs and LPNs will earn 3 contact hours for attending this seminar.

$27.00

XNC 2475

End-of-Life Nursing Education Consortium Training (ELNEC)

Nurses spend more time with patients and families facing the end of life than any other health professional. Nurses are intimately involved in all aspects of end-of-life care and they address the myriad of needs facing individuals at this time of life. Expert nursing care has the potential to greatly reduce the burden and distress of those facing life's end and the ability to offer support for the many physical, psychological, social, and spiritual needs of patients and their families. This educational activity utilizes the End-of-Life Nursing Education Consortium's curriculum and includes all nine ELNEC modules addressing critical aspects of end-of-life care. Attendance for all nine modules is required to utilize the "ELNEC Trained" designation. RNs and LPNs will earn 9 contact hours for attending this seminar.
**Practical Applications of Human Genome Project**
Discoveries This workshop for health care providers will give a historical perspective on the Human Genome Project and provide information about its application to clinical medicine, now and in the future. RNs and LPNs will earn 4 contact hours for attending this seminar.

**Insulin Resistance: The Path of Metabolic Syndrome and Metabolic Syndrome and Diabetes Type 2**
Obesity has risen to epidemic proportions in the US today. An estimated 64% of the current population is either overweight or obese. Metabolic Syndrome, the term used to describe a cluster of related medical conditions (including obesity, hyperlipidemia, hypertension and high blood sugar), is also on the rise. An estimated 47 million Americans exhibit symptoms of Metabolic Syndrome. Many of these individuals eventually develop Diabetes Type 2. Can these conditions be identified and treated early to slow or stop the onset of Diabetes? This lecture will discuss Insulin Resistance (IR) as the root cause of these disorders and propose strategies for early detection and possible prevention of Metabolic Syndrome and Diabetes Type 2. RNs, LPNs and dietitians will earn 3 contact hours for attending this seminar. Approval is pending for OTs and PTs.

**The Magic of Music and Mending the Mind**

**The Management and Treatment of Parkinson’s Disease**
What is Parkinson’s disease? Is it genetic? Which medications are indicated, and which are contraindicated? How can I give the best care to people with Parkinson’s disease? Come to this seminar and learn about Parkinson’s disease, its symptoms, causes and treatments. Get an overview of genetics and heredity and their role in Parkinson’s disease. Learn about the best and most common PD medications, their effects and side effects, and the role polypharmacy plays in the treatment of Parkinson’s. RNs, LPN, LMHTs, LMTs, social workers, dentists and dental hygienists will earn 4 contact hours for attending this seminar. ACHAs will earn 4 (RC) hours. Approval is pending for OTs and PTs.

**Haven’t Got Time for the Pain**
This program will cover the basics of pain management including, nociception of pain, types of pain, pain assessment and barriers to appropriate pain management. Particular emphasis will be placed on medications used in pain management with a didactic session on dosing calculations and conversions. Nonpharmacologic interventions for empowering patients in pain will be discussed. RNs, LPNs, social workers, dentists and dental hygienists will earn 6 hours for attending this seminar. ACHAs will earn 6 (RC) hours. Approval is pending for other health care professionals.
Seizure Salad: Recognizing Uncomplicated Childhood Seizures

Uncomplicated seizures and epilepsy are common findings in infants and children. Nurses need to have an understanding of epilepsy syndromes that occur in children, such as febrile seizures, benign focal epilepsy of childhood, complex partial epilepsy, juvenile myoclonic epilepsy and video game related epilepsy. Nurses also need to be aware that not all uncomplicated childhood seizures require neuro-imaging or treatment. RNs, LPNs, LMHTs and social workers will earn 3.5 contact hours.

$42.00

XNC 2482

Presentation Skills for Health Care Professionals

Speaking effectively is a top skill for success in the health care industry. If you want to look, feel, and sound more confident in speaking situations, you’ll want to enroll in this class. Learn how to easily organize your thoughts, confidently present your information and maintain audience interest. RNs, LPNs, LMHTs, social workers, and counselors will earn 6 contact hours. ACHAs will earn 6 (A) hours. Approval is pending for OTs and PTs.

$72.00

XNC 2483

Handling Challenging Behaviors in Persons on the Autism Spectrum

As therapeutic interventions and scientific research continue to improve the quality of life for individuals with autism and their families. The stereotyped description of a child banging a head against the wall while rocking and screaming has become vastly outdated. Individuals with autism spectrum disorders are winning basketball games and spelling bees, starting companies, and writing books. While awareness of autism disorders has grown, practical knowledge about this group of disorders has not followed suit. This course is designed to familiarize students with the characteristics of autism and Asperger Syndrome, with a dual focus on behavioral and social challenges. Particular emphasis will be placed on the proactive and reactive management of challenging behaviors as well as the promotion of social competence. RNs, LPNs, LMHTs, social workers and counselors will earn 4 contact hours. Approval is pending for OTs and PTs.

$48.00

XNC 2484

Effective Teamwork

Health care is a growing industry where people work non-standard hours and often feel they lack sufficient resources. It is essential to their success that they involve, support, and share information with those in their teams or work groups. This course helps managers focus their staff on personal, interpersonal, and organizational advantages of working together effectively and efficiently. RNs, LPNs, LMHTs, social workers, and counselors will earn 3 contact hours. ACHAs will earn 3 (A) hours.

$36.00

XNC 2485

FLASH! Everything You Wanted to Know About Hormones

Have you ever wanted to know more about hormones and hormone replacement therapy? Have other people asked you questions about hormones that you couldn’t answer? Find the answers you need about hormones and how they affect women, men and even children in this seminar. RNs and LPNs will receive 3 contact hours for attending this seminar.

$27.00

XNC 2486

Obesity and Bariatric Care
This course is designed to provide an overview of the obesity epidemic affecting so many Americans today. The treatment options available through bariatric surgery offer many of these people new hope for a better quality of life. The process of identifying appropriate surgical candidates, resolving co-morbidity issues and psychological and sensitivity issues will be addressed in this program along with the significance of multidisciplinary care to foster positive outcomes. Specific components of a comprehensive surgical program will be identified and reviewed. RN, LPNs, LMHTs, social workers and counselors will earn 3 contact hours. ACHAs will earn 3 (RC) hours. Approval is pending for OTs and PTs.

$36.00
XNC 2487

Leadership in Long Term Care
Leadership takes action, communication and insight, not to mention bravery when you work in the long-term care profession. This course will talk about effective leadership styles and techniques to help build teams and consistency. With the changing survey process, we will focus on the latest trends, deficiencies and how to keep up to date on survey issues, while being proactive in meeting these challenges. RNs, LPNs, LMHTs, social workers and counselors will earn 3 contact hours. ACHAs will earn 3 (A) hours. Approval is pending for OTs and PTs.

$36.00
XNC 2488

When You and Me and Baby Don't Make Three: Infertility
The frequency of infertility has remained unchanged over the past century, however, medical advances have overcome many of the obstacle faced by couples wanting to have children. This fact brings hope to thousands of people every year and yet, further education is needed to help these people come to understand and be comfortable with the assisted reproductive technologies now available. Clients need this education to become comfortable with specific psychological and sexual issues that often accompany infertility and affect relationships. Participants will learn how to identify and assess the complex psychological and sexual issues that couples dealing with infertility face and what signs to look for when determining to make a referral for counseling. RNs, LPNs, LMHTs, social workers and counselors will earn 3 contact hours.

$36.00
XNC 2489

Why We Click With Some, and Clank With Others
This course will utilize the DiSC personal profile to help each individual better understand what their strengths and weaknesses are as well as those of others. This information is then utilized to help participants understand how to adapt their style to that of others and explore interpersonal relationships at work. This program also develops key skills based on communication, teamwork and leadership to improve personal and professional relationships. Course fee includes DiSC Personal Profile workbook ($25). RNs, LPNs, LMHT, social workers and counselors will earn 6 contact hours. ACHAs will earn 6 (A) hours.

$97.00
XNC 2490

Elder Law for Kansas Caregivers
Caring for an elder in today's legal environment can be confusing at best. Come learn how aging can be impacted by the legal system. You will study legal principles where decision making can be withheld from impaired adults and grant to others the power to act for them (Guardianship). Legal principles will be reviewed which permit preservation of some assets without causing ineligibility for benefits (Medicaid eligibility). Plus there will be valuable information about the power of others to make decisions for a person who is ill or injured (Durable Power of Attorney and Advanced Directives). RNs, LPNs, LMHTs, social workers,
Counselors, dentists and dental hygienists will earn 3 contact hours for attending this workshop. ACHAs will earn 3 (A) hours. Approval is pending for other health professionals.

$27.00

XNC 2491

Caring for the Caregiver: The Hidden Patient

Approximately 50 million people in the United State provide care for an elder or disabled family member during any given year. As the population of persons age 65 and older climbs to 20 percent by 2030, more and more families will be faced with care giving responsibilities. Caregivers must provide care under complex circumstances, balancing care giving with other responsibilities related to their own families and work outside the home. This seminar provides information about our aging population, issues related to care giving, how to support the caregiver, and available resources. RN, LPNs, LMHTs, social workers, counselors and psychologists will earn 3 contact hours. ACHAs will earn 3 (RC) hours. Approval is pending for OTs and PTs.

$72.00

XNC 2492

Building Habits that Empower Positive and Durable Change in Clients

Boost your professional effectiveness by learning to make the most of both your knowledge and personal style. First, we’ll examine the five strategies to success and how terminology and communication are key to facilitating change in clients. Then the next level begins with professional philosophy and demeanor: How do you see your role? Is success more art or science? How do you use your personality as an instrument? What elements of routine and self-discipline (as well as self-care) can heighten your effectiveness (think boundaries, record-keeping, professional support and consultation, policies, and systems)? This course will encourage participants to maximize the resources they bring to future professional interventions. RNs, LPNs, LMHTs, social workers and counselors will earn 6 contact hours.

$72.00

XNC 2493

Blending Families: Practical Skills and Insights for Combining Families

Blending families are the fastest growing lifestyle in America. The complexities far exceed the 'Brady Bunch' perception. Half of American children will live in divorced families before they are age 18. The divorce rate for first marriages is 50%, second marriages is 60%, and 75% for third marriages. Children are left with revolving parents and parents with revolving responsibilities. The challenge of clarifying ambiguous boundaries and roles takes 5-7 years. This course will cover how these Blending families can, with guidance and psycho-education, be very successful and positive for everyone. RNs, LPNs, LMHTs, social workers, counselors and psychologists will earn 6 contact hours. Approval is pending for OTs and PTs.

$72.00

XNC 2494

Working With and Advocating For Alzheimer's Patients

Although working with the aging population exposes the significant presence of age discrimination that persists in our society, much of social work efforts in the aging field are directed at maintaining inadequate systems. This class will focus on the demands of the social work code of ethics as it relates to advocacy as interpreted through individual, group and community work and how those demands take form in day to day work with this population. Social workers and counselors will earn 3.5 contact hours.

$42.00
XNC 2495
Lab Studies - Advanced
This seminar is expanded beyond the basics. It is a practical program that will provide a clear understanding of various lab tests, when and why they are indicated and what their values mean. In addition to routine labs, content will cover pregnancy and hormone tests, rheumatology tests, cardiac and liver enzymes, strep and other infectious diseases. RNs and LPNs will earn 5 contact hours for attending this seminar.

$45.00

XNC 2496
Women With Attentional Issues: How to Intervene When Traditional Treatment Fails
Females with attentional deficits often fall through the cracks in terms of both diagnosis and treatment. Unlike their male counterparts, most women report no childhood history of disruptive classroom behavior, no impulsive hyperactivity. Instead, we see a pattern of adulthood contradictions: creativity and underachievement, plus insightful, witty personalities with troubled relationships. Participants will learn to identify and appropriately address attentional issues in women. Both professionals and clients benefit from a multi-discipline approach to client care and education, and this course will invite participants to increase their personal resource lists, gain a better understanding of which interventions are not appropriate for this population, and explore the unique benefits of a women’s attention-deficit support group. RNs, LPNs, LMHTs, social workers and counselors will earn 6 contact hours.

$72.00

XNC 2497
A Culture of Change in Long-term Care
As many industries use the term culture change, in long-term care it is vital and long overdue. In this course you will learn the changing trends of healthcare delivery affecting our seniors. Understand how culture change / resident centered care is transforming the long-term care profession. Identify the barriers and road-blocks found during the transformation process. Discover how employee empowerment and self-directed teams can effect retention, job satisfaction and resident outcomes. Find out what type of leadership skills best work in culture change. RNs, LPNs, LMHTs, social workers and counselors will earn 3 contact hours. ACHAs will earn (3 RC) hours. Approval is pending for OTs and PTs.

$36.00

XNC 2500
Traumatic Grief and Trauma in Children
This course is designed to help professionals who work with bereaved individuals and families to better understand the nature and effects of trauma on the grief process and to identify methods of dealing with those who have experienced traumatic events. Specific content will be presented on how to work with children and adolescents who have experienced trauma - recognizing the signs of trauma, identifying signals that are warning signs that a child may be in difficulty and learning about appropriate interventions. RNs, LPNs, LMHTs, social workers, counselors and psychologists will earn 5 contact hours for attending this seminar.

$45.00

XNC 2501
Building Relationships That Can Prevent Youth Violence
American culture is the most violent in the world and our youth are now participants in crimes once thought unthinkable in ones so young. The causes for this are many, but no longer can we ignore the problem. The research shows that one caring adult can make a difference when they realize the pain our youth are experiencing trying to grow up in complex society. This symposium explores the
individual psychiatric conditions, family, cultural and the societal dynamics that fulminate in this serious problem. Strategies for individuals and organizations to apply that will make a difference will be presented. Lunch will be provided.

RNs, LPNs, LMHTs, social workers, counselors, and psychologists will earn 16 contact hours.

$240.00

XNC 2505

Bridging Generational Gaps: Four Generations in Healthcare Workplace Representatives from the four generations comprising today's workforce agree about their desire to work in a coordinated, cooperative environment. Yet, discussions between members of those generations often yield unproductive results. In today's world, success is contingent on the ability to identify and enhance the strengths possessed by all team members, regardless of their generation. If you've struggled to understand why some members of your work team behave in annoying and unpredictable ways, don't miss this seminar! RNs, LPNs, LMHTs, social workers, dentists and dental hygienists will earn 6 contact hours for attending this seminar. ACHAs will earn 6 (A) hours. Approval is pending for other health professionals.

$54.00

XNC 2510

Where Has the Thrill Gone? Burnout Prevention

and Recovery Remember the excitement and enthusiasm you experienced when you began to practice your profession? Do you still anticipate each workday or have you become vulnerable to the devastating impact of burnout? Has your excitement and enthusiasm been replaced with cynicism and apathy? Are negative feelings no longer limited to the workplace, but creeping into other aspects of your life as well? If you've been wondering where the thrill has gone, it's time to take action! Join us to identify strategies for recovery and future prevention. RNs, LPNs and LMHTs will earn 6 contact hours for attending this workshop. Approval is pending for other health care professionals.

$54.00

XNC 2515

FEN/PHENomenon: Are Anti-obesity Drugs the Answer?

A description is not available for this course.

$27.00

XNC 2520

Thriving in a Kaleidoscope of Change

A description is not available for this course.

$54.00

XNC 2525

Using Biofeedback to Reduce Stress

A description is not available for this course.

$54.00

XNC 2530

Taking Positive Action to Manage Stress and Burnout

A description is not available for this course.

$27.00
Those Versatile Steroids
Corticosteroids are among the most frequently prescribed medications. They are unique in their ability to treat a variety of diseases. The dilemma presented by this class of medications, however, is the side effect profile. Corticosteroids have the potential to adversely affect virtually every organ system. This program will review the physiology, pharmacology, indications, dosing and adverse effect profile of corticosteroids. RNs, LPNs and LMHTs will earn 3 contact hours for attending this workshop. Kansas ACHAs will earn 3 (RC) hours.

Mirth, Music and Mental Health (Health Professionals Appreciation Day)
As a health care professional, you serve a vital role in the community and you deserve a day of relaxation and fun. Attend this program in your honor and explore the importance of laughter and music to good health. RNs, LPNs and LMHTs will earn 6 contact hours for attending this workshop. Kansas ACHAs will earn 6 (RC) hours. 1 Approval is pending for other health professionals.

Dear Dr. Menninger: Women's Voices From the 1930s
Explore issues that troubled people in the 1930s and compare these with today's concerns. Take an historical look at the foundations of mental health treatment, as developed by psychiatrist Karl Menninger, and examine how current mental health approaches grew from these pioneering efforts. RNs, LPNs, LMHTs, psychologists, social workers and counselors will earn 7 contact hours for attending this workshop.
Asthma Update: 2004
An estimated 17 million Americans, five million under 18, have asthma. Asthma is becoming more prevalent across all age, sex and racial groups and the magnitude of this condition alone compels nurses and other health professionals to be knowledgeable about recent innovations in successful management. This seminar will update your knowledge of both pediatric and adult asthma as well as familiarize you with strategies to effectively assist the asthma patient to maintain better control of his/her disease. Both basic and advanced information will be presented and case studies will be utilized to help you put theory into action. RNs and LPNs will earn 4 contact hours for attending this program. ACHAs will earn 4 (RC) hours.

$36.00

XNC 2575

What’s New in IV Therapy? Skin Prep and More
Update your knowledge of intravenous therapy from skin prep to catheter selection. Learn new skin prep techniques, flushing techniques and the latest from the CDC. Go away with ideas for changing your IV practice to improve patient outcomes. RNs and LPNs will earn 3 contact hours for attending this workshop. Kansas ACHAs will earn 3 (RC) hours.

$27.00

XNC 2580

Exercising Your Options: The How, When and Why of Physical Fitness
What does being physically fit mean to you? Losing weight, improving your cholesterol profile, lowering your risk of osteoporosis, improving your muscle tone and cardiovascular endurance, looking younger? Learn how to establish your health priorities and create an exercise program that fits your lifestyle. RNs, LPNs and LMHTs will earn 3 contact hours for attending this workshop. Kansas ACHAs will earn 3 (E) hours. Approval is pending for other healthcare professionals.

$27.00

XNC 2585

Elder Abuse: What to Look For and How to Help
Elder abuse is far more common that we generally realize. It comes in many forms, most often at the hands of family members or caregivers. Explore the many components of abuse and identify ways to intervene and stop the abuse. RNs, LPNs and LMHTs will earn 3 contact hours for attending this workshop. Kansas ACHAs will earn 3 (RC) hours.

$27.00

XNC 2590

Lab Studies - Advanced
This seminar is expanded beyond the basics. It is a practical program that will provide you with a clear understanding of various lab tests, when and why they are indicated and what their values mean. In addition to routine labs, content will cover pregnancy and hormone tests, rheumatology tests, cardiac and liver enzymes, strep and other infectious diseases. RNs and LPNs will receive 5 contact hours for attending this seminar.

$45.00

XNC 2595

Spanish for Health Care Professionals: Expanding the Basics
Build on the basics you learned in Spanish 101 for Health Professionals. Learn more basic Spanish as well as vocabulary and phrases specific to various medical settings. Gain more information about cultural aspects and resources for
future study. RNs, LPNs and LMHTs will earn 6 contact hours for attending this workshop. Kansas ACHAs will earn 6 (E) hours.

$54.00
XNC 2600

**Holistic Health Care: Uniting Mind, Body, Spirit**
Learn to revive holistic care in your daily practice. Compare the allopathic and holistic models of health care and discuss the role of spirituality—one component of the time-honored holistic concept. Identify practical approaches to assess and promote patients' spiritual health and collaborate with colleagues in applying principles of spiritual care. RNs, LPNs, and LMHTs will earn 7 contact hours for attending this workshop. Kansas ACHAs will earn 7 (RC) hours.

$63.00
XNC 2605

**Complementary Therapies for Chronic Health Problems:**
Hope or Hype? You will discuss complementary therapies being used to help patients manage chronic health conditions such as cardiovascular disease, arthritis, fibromyalgia, irritable bowel disease, chronic fatigue syndrome and others. Recent research will be presented. RNs and LPNs will earn 3 contact hours. Kansas ACHAs will earn 3 (RC) hours.

$27.00
XNC 2610

**Clinical Management of Individuals With Alzheimer's**
Explore a variety of dementing illnesses as well as the clinical problems, treatments and interventions associated with them. RNs, LPNs and LMHTs will earn 6 contact hours for attending this workshop. Kansas ACHAs will earn 6 (RC) hours. Approval is pending for OTs, PTs and dietitians.

$72.00
XNC 2615

**Preventing/Managing Violence in the Workplace**
For many years, health care professionals have faced a significant risk of job-related violence. The Bureau of Labor Statistics indicates that they are among the highest at risk for non-fatal assaults. In this overview course, you will learn concepts of anger control as well as how to assess violence risk. You will gain skills to help you defuse angry situations or manage a potential threat should it occur. RNs, LPNs and LMHTs will earn 6 contact hours for attending this workshop. Kansas ACHAs will earn 6 (A) hours.

$54.00
XNC 2620

**Lucid Dreaming and Journeying: Pathways to Recovering**
Spirit Learn to gain greater control of your dreams, both awake and sleeping. Explore Lucid Dreaming and Journeying, two pathways central to the cultural and healing practices of the ancients. This workshop will include practical guidance and knowledge to effect healing of mind, body and spirit for both the novice and practiced dreamer. RNs, LPNs and LMHTs will earn 3 contact hours for attending this workshop.

$27.00
XNC 2625

**Certified Dietary Manager-Basic Nutrition**
A description is not available for this course.
Deadly Sleep

More than 1,500 traffic fatalities per year may be directly attributed to sleep disorders. Strokes, headaches, impaired mental function and poor job performance can be the result of these disorders as well. Sleep disorders involve more than "sleep apnea" and may include a long list of possible diagnoses. Learn about the many causes of these disorders. RNs, LPNs and LMHTs will wear 3 contact hours for attending this workshop. Kansas ACHAs will earn 3 (RC) hours. Approval is pending for other health professionals.

Healing Trauma: The Stages of Treatment

Treatment of survivors of trauma, childhood or adult, neglect and abuse, has often been a random process for both the therapist and the client. While healing trauma is not a linear process, certain stages of recovery follow a common pathway. This presentation explores dynamic, cognitive and behavioral approaches to healing trauma. RNs, LPNs, LMHTs, social workers and counselors will earn 3 contact hours for attending this workshop.

Why It’s OK to Put the "I" Back in Team

Who says there's no "I" in team? As a matter of fact there are Introverts, Extroverts and other categories of preference that make up any well-functioning team. The problem comes in identifying them and then relating to them in effective ways. Using the Myers-Briggs Type Inventory (MBTI), a framework that facilitates team building, you will explore these preferences and learn to respond to individuals in ways that produce a more effective work environment. RNs, LPNs, LMHTs, social workers and counselors will earn 6 contact hours for attending this workshop. Kansas ACHAs will earn 6 (A) hours.

Common G.I. Conditions: Updating Your Knowledge

Explore common G.I. problems, including GERD, ulcers and superinfections of the G.I. tract, that affect all segments of our population in one way or another. Update your knowledge of current treatments, the health professional's role in educating patients and ways to prevent complications or recurrence of symptoms. RNs, LPNs and LMHTs will earn 3 contact hours for attending this workshop. Kansas ACHAs will earn 3 (RC) hours.

Biological Terrorism: A High Impact Threat in Our Community

Are you prepared to deal with a large-scale biological attack when it happens in your community? This workshop will give you a better understanding of the threat that biological terrorism poses and what you can do to prepare for dealing with such an attack. RNs, LPNs and LMHTs will earn 3 contact hours for attending this workshop. Kansas ACHAs will earn 1.5 (A) and 1.5 (RC) hours. Approval is pending for other health care professionals.

Low Back Pain: Managing A Disabling Health Problem
Low back pain is the leading cause of disability in adults less than 45 years of age, with more than 60% of the U.S. population expected to have at least one episode of limited function from low back pain during their lifetime. Explore the expanding roles of physical medicine and physical therapy in managing this painful and debilitating problem. RNs and LPNs will earn 3 contact hours for attending this workshop. Kansas ACHAs will earn 3 (RC) hours. Approval is pending for physical therapists.

$27.00
XNC 2660
Communication: How to Say Almost Anything to Almost Anyone
Effective communication is the building block for all relationships. Improved patient care, enhanced teamwork and creative problem solving are impossible without it. Discover methods to reduce defensiveness in others, learn to use the stages of conflict constructively and identify how important it is to use the whole message during difficult communication encounters. RNs, LPNs, LMHTs, social workers and counselors will earn 6 contact hours for attending this workshop. Kansas ACHAs will earn 6 (A) hours. Approval is pending for other health professionals.

$54.00
XNC 2665
Botox: 101 Medical Uses for the World's Most Deadly Toxin
Everyone knows that botulism toxin can be used to erase wrinkles and as a weapon of bioterrorism. Between these extremes, however, are a multitude of other medical uses, including treatment of stroke, cervical dystonia, DMS, migraine headache and movement conditions. Hear a whole range of its uses and abuses. RNs, LPNs and LMHTs will earn 3 contact hours for attending this workshop. Approval is pending for other health professionals.

$27.00
XNC 2670
Caregiving: A Sacred Role in Determining Quality of Life
The aging of America will present complex challenges as we learn to care for the oldest population in the history of the world. Today, 22.4 million families are caregivers for elder family members or friends and this trend will increase as the baby-boomers make their way into their senior years. Learn the practical, emotional, and spiritual aspects of being a caregiver in the 21st century and its effects on individuals and families. RNs, LPNs, LMHTs, social workers and counselors will earn 6 contact hours for attending this workshop. Kansas ACHAs will earn 6 (RC) hours. Approval is pending for other health professionals.

$54.00
XNC 2675
Facing Change in Health Care: Security of Teams
Security and confidence are enhanced when coming together. Find direction for facing challenge and change in today’s health care market through the formation of effective teams and the strategy of continuous improvement. RNs, LPNs, LMHTs, social workers, counselors, dentists and dental hygienists will earn 6 contact hours for attending this workshop. ACHAs will earn 6 (A) hours. Approval is pending for other health professionals.

$54.00
XNC 2680
Exploring the Use of Nutritional Supplements and Botanical/Herbal Medicines
The use of nutritional supplements and herbal remedies has experienced a resurgence in the last two decades as the public and the medical community alike seek effective ways to treat chronic disease. Learn
the clinical indications, actions, side effects and contraindications for a wide variety of these natural medicines. RNs, LPNs and LMHTs will earn 3 contact hours for attending this workshop. Kansas ACHAs will earn 3 (RC) hours. Approval is pending for other healthcare professionals.

$27.00

XNC 2685

Nursing Care of the High Risk Obstetric Patient
Discuss the pathophysiology, treatment and nursing care of the most common high risk obstetrical conditions: pregnancy induced hypertension, placenta previa, placenta abruptio and pre-term labor. RNs and LPNs will earn 4 contact hours for attending this workshop.

$36.00

XNC 2690

The ABC's of Stroke: Onset to Rehabilitation
This program is designed to enhance the ability of the health care professional to associate symptoms and assessment with the pathophysiology of stroke. New research and rehabilitation strategies will be integrated in tracing the acute stroke treatment process from E.R. through community reintegration. RNs, LPNs, LMHTs, social worker and counselors will earn 6 contact hours. ACHAs will earn 6 (RC) hours. Approval is pending for OTs and PTs.

$72.00

XNC 2695

Fluids and Electrolytes: A Balancing Act
Historically, the subject of fluids and electrolytes creates a great deal of sweat for the average nurse - osmosis, diffusion, filtration, eeeagad! Every working day, nurses encounter disease processes, drug reactions, patient responses to procedures and crisis situations that involve fluids and electrolytes. This presentation uses case studies to review fundamental fluid and electrolyte concepts, and identify helpful strategies for evaluating the fluid electrolyte status of patients to improve care. So, grab a favorite fluid and join us for a review that focuses on logic and clinically based scenarios. RNs and LPNs will earn 3 contact hours for attending this seminar.

$27.00

XNC 2700

Antisocial Personality Disorder: A Cauldron of Problem
Patients, Criminals and Predators The diagnosis of antisocial personality disorder includes a variety of individuals and diagnostic pictures. This group, mostly men, range from those who manage to function, to convicted criminals, to sadistic sexual predators. Developmental cues and types of thinking common among those with this diagnosis will be presented. Understanding the diagnostic picture and mental processes of the antisocial can assist those who encounter them in medical, legal or other contexts. There will be a review of the diagnosis and epidemiological picture of this disorder. You will also learn how these individuals think, communicate, and behave. Techniques for interacting with and managing the antisocial will be explored. This seminar meets mental health DSM-IV requirement. RNs, LPNs, LMHTs, social workers, counselors and psychologists will earn 6 contact hours for attending this seminar. Content will be of interest to law enforcement personnel.

$54.00

XNC 2705

Healing the Spirit: Native American Perspectives of End-of-Life Care Health care professionals are on the front lines of end-of-life care. You know that patients and families face challenges and needs that are
social, psychological and spiritual, as well as medical. This seminar will include an introduction to Native American Spirituality and a cultural orientation in end-of-life care for caregivers working with the sick and dying Native American and his/her family. RNs and LPNs will earn 3 contact hours for attending this program. ACHAs will earn 3 (RC) hours.

$27.00

XNC 2710

Medication Misadventures
This seminar will provide healthcare providers with an understanding of medication errors including causes, patient safety, reduction, prevention, reporting, and the legal issues resulting from these errors. RNs and LPNs will earn 3 contact hours for attending this program. ACHAs will earn 3 (A) hours.

$27.00

XNC 2715

Beyond the Vital Signs - Dealing Effectively With Diversity Issues in the Health Care Industry
Diversity Issues in Health Care One of the biggest challenges in the health care business is managing diversity issues. Differing cultures, work styles and mannerisms often lead to miscommunication and team conflict. This seminar clearly illustrates the importance of learning about your staff and patient population and how they respond in the health care industry. Attend this seminar to examine the many diversity concerns facing the health care industry every day. This will be of special interest for health care managers. RNs, LPNs, LMHTs, social workers, dentists and dental hygienists will earn 5 contact hours. ACHAs will earn 5 (A) hours. Approval is pending for other health professionals.

$60.00

XNC 2720

When a Child You Know is Grieving: Griefcare in the
World of Contemporary Children "Oh children are so resilient!" is a convenient escape clause for lack of recognition of childhood grief. In many quarters, however, children are disenfranchised and discounted grievers - whether the loss is the death of a parent or grandparent or sibling, a divorce, loss of safe neighborhood, abuse, or loss of innocence. This seminar will prepare you to develop a compassionate care response - rather than a reaction - to the childhood grief. You will learn how to support grieving children, how to give permission to grieve, and how to recognize warning signs of emotional stress in the grieving child. RNs, LPNs, LMHTs, social workers, counselors, psychologists and clergy will earn 4 contact hours for attending this seminar.

$36.00

XNC 2725

Everything About Hormones
A description is not available for this course.

$27.00

XNC 2730

Making a Difference When Grief Strikes
This seminar will explore the needs and support required by the grievers and their close family. RNs, LPNs and LMHTs will earn 3.0 contact hours for attending this seminar.

$35.00

XNC 2735
Making Meaning Out of Loss
This seminar will center on the post-death grieving experience. RNs, LPNs and LMHTs will earn 3.0 contact hours for attending this seminar.

$35.00
XNC 2740

Command Spanish for Health Professionals
This course is designed to teach Spanish that can be used immediately in day-to-day communication with patients. Pronunciation, work-specific language, phonetic encoding and listening activities are a part of each lesson. This is a customized real-life Spanish program designed to prepare the non-Spanish speaking health care professional to better interact with and care for Spanish-speaking patients. Coursework will apply to a wide range of health professionals with an emphasis on enhancing the quality of patient care. Educational materials are published by Command Spanish(r) and include a workbook manual and two CDs ($30) which are included in the fee. RNs, LPNs, and LMHTs will earn 12 contact hours for attending this seminar. ACHAs will earn 12 (RC) hours. Approval is pending for OTs and PTs.

$150.00
XNC 2745

Negligence 101: The Basics of Tort Law
What does it mean to think like a lawyer? What does an attorney look for when deciding to take a case? As the healthcare environment becomes more technical, healthcare practitioners are exposed to more liability than ever. A basic understanding of what negligence is and how to avoid it are essential. This course is designed for the healthcare professional interested in gaining a basic understanding of how an attorney views a negligence case. You will also gain insight into what happens during the course of litigation and what you can do to limit your risk of being involved in a malpractice action. RNs, LPNs and LMHTs will earn 3 contact hours. ACHAs will earn 3(RC) hours. Approval is pending OTs, PTs and dietitians.

$27.00
XNC 2750

Fitting in Fitness
Too Busy? No Time? No Energy? Rid yourself of excuses by squeezing bite-size amounts of fitness into every day. Those with hectic schedules know that finding time to go to the gym can be a challenge. How can we take care of others if we aren’t taking care of ourselves too? Perhaps we know what to do, but can’t find the time to start? Don’t allow exercise to be overwhelming; there are many ways to fit fitness into our lives. By making small changes in your daily routine, you’ll increase your health and well-being tenfold. A little brief stretching goes a long way when it comes to a pain-free body. Learn how to make the most out of every stretch, exercise, and daily task performed at home as well as in the workplace. Develop fitness programs tailored to suit your personal goals and lifestyle. Learn how to exercise properly by combining strength-training and cardiovascular activity to achieve life-long results. Class participation in exercises and stretching is optional, but encouraged. (Bring calculators to class and wear comfortable clothing) RNs, LPNs,LMHTs, social workers counselors and dental hygienists will earn 3 contact hours for attending this course. ACHAs will earn 3 (E) hours. Approval is pending for OTs, PTs and dietitians.

$27.00
XNC 2755

It’s Time To Get Reacquainted with Basic Immunity
and Immune Reactions Every day health care professionals care for patients who are immune suppressed, deficient, hypersensitive or autoimmune. Yet we often do not remember how the immune system works or the consequences of its failure to work properly. This program is designed to reacquaint health care
professionals with the basic principles of immunity. The structure and function of
the immune system will be reviewed and case studies will be used to demonstrate
the concepts of hypersensitivity, autoimmunity, and therapeutic immune
suppression. RNs and LPNs will earn 4 contact hours for attending this seminar.
ACHAs will earn 4 (RC) hours.

$36.00
XNC 2760
Apples to Oranges: Comparisons of the Popular Weight Loss Programs
In the industrialized world, modern agribusiness has largely done
away with food shortages, allowing society to achieve a millennia-old dream of
plentiful, low cost, calorie-dense food, readily available in hundreds of thousands
of supermarkets and restaurants around the globe. Currently, there are more
than 56 million who are obese 13 percent of American children are now classified
as clinically overweight or obese. The diet industry is a $40 billion per year
industry. This figure is amazing considering 95% of all dieters will regain their lost
weight within 1-5 years. The staggering breadth and scope of America’s obesity
epidemic is only surpassed by its complexity. This workshop will assist health
professionals to understand more completely the various commercial diet
programs so as to better advise patients with their successful weight loss
attempts. RNs, LPNs, LMHTs, social workers and counselors will earn 3 contact
hours for attending this course. ACHAs will earn 3 (E) hours. Approval is pending
for OTs and PTs.

$27.00
XNC 2765
Functional Medicine: Health Care for the Future
Functional Medicine involves understanding the etiology, prevention, and
treatment of complex chronic disease in order to assess and treat each patient
individually. It emphasizes evaluating and intervening with environmental factors
(diet, toxins, lifestyle) and fundamental internal and external imbalances in order
to help patients achieve an optimal healthy life span. This course will detail the
philosophy and approach to health care taken by functional medicine, and expose
the learner to basic science research that leads to effective nutritional and lifestyle
interventions to help improve health status. RNs, LPNs and

$27.00
XNC 2770
Healthcare Quality: Myths and Realities
The eighth leading cause of death in America may surprise you. It isn't cancer or
cardiac disease. Medical errors have earned that dubious distinction. Every year
between 44,000 and 98,000 deaths occur due to medical errors. This seminar will
explore the National Institute of Medicine report that identifies the reason why
deaths from medical errors remain high and will include a discussion of healthcare
organizational policies that contribute to medical errors. RNs, LPNs, LMHTs, social workers, counselors and dental
hygienists will earn 6 contact hours for attending this program. ACHAs will earn 6
(A) hours. Approval is pending for OTs, PTs, and dietitians.

$54.00
XNC 2775
Juggle, Balance and Scramble! Managing Priorities in the Healthcare Industry
Attend this seminar and you will learn how to survive and thrive in your high
demand job. RNs, LPNs, LMHTs, social workers, counselors and dietitians will
earn 5 contact hours. ACHAs will earn 6 (A) hours. Approval is pending for other
health professionals.

$72.00
XNC 2780
Teen Suicide: At Risk and In Crisis in America's Classrooms
This seminar will provide an understanding of the suicidal teen including early warning signs, lethality evaluation, immediate crisis intervention, and long-range deterrents. You will learn the importance of teens understanding basic intervention strategies that disrupt suicidal ideation. The basic myths of suicide that complicate treatment and intervention will be studied. You will take an in-depth look at behavioral warning signs and teaching strategies to prepare teens to provide meaningful intervention. You will learn school policies and practices found legally and therapeutically sound in crisis management. RNs, LPNs, LMHTs, counselors and social workers will earn 6 contact hours for attending this course.

$54.00
XNC 2785
Mirror Mirror On The Wall! Anti-Aging Medicine:
Anti-aging this and anti-aging that. This course will provide a basic overview of what it is, where to begin, and what to do. You've heard the new buzz word in medicine, but what is it? Find out what all the 'hype' is all about in this new and emerging field of medicine and what you can do to be a part of this new health movement. You will learn about theories of aging, the role free radicals and oxidative stress play and how antioxidants can help. This course will help you understand how the choices we make with regards to diet, lifestyle, etc can impact your health and what you can do to optimize your health and vitality. RNs, LPNs, LMHTs, social workers and dietitians will earn 3 contact hours for attending this course. Approvals is pending for OTs and PTs.

$27.00
XNC 2790
In Charge, but Losing Control: Leadership Skills
So you're in charge...now what? How do you go about getting your team to perform together rather than "storming" together? Effective leadership skills are necessary to manage staff in any healthcare setting. This course will explore the unique interpersonal skills necessary to be an effective leader. Learning how to motivate and reward others to do a good job, communicating in ways that resolve conflict and build cooperative working relationships, managing the stressors of work and home will all be covered in this interactive workshop! RNs, LPNs, LMHTs, social workers, counselors, dietitians and dental hygienists will earn 6 contact hours. ACHAs will earn 6 (A) hours. Approval is pending for OTs and PTs.

$72.00
XNC 2795
Osteoporosis: Current Trends and Treatments
This course will review the pathophysiology of Osteoporosis, look at the populations most at risk for this disease, common misconceptions regarding the diagnosis and treatment. We will identify the various testing methods for diagnosis and look at the recent clinical trials eluding to the current treatment recommendations and the role of hormone replacement therapies and estrogen receptor modifier medications that may play a role in treatment. We will discuss the current available medications for treatments, side effect profiles, efficacy rates and directions for use. We will discuss the cost and efficacy for the most common treatment modalities and the protocol for monitoring this disease process. RNs, LPNs and LMHTs will earn 3 contact hours for attending this course. ACHAs will earn 3 (RC) hours. Approval is pending for OTs and PTs.

$27.00
XNC 2798
Coaching Staff
In order for staff members to handle workplace challenges, managers must use coaching and reinforcement to help their people gain the confidence and experience required for success. This course introduces the skills managers need to guide individuals and teams to achieve successful results. Managers learn how to recognize and approach each coaching opportunity, prompting people toward successful results. RNs, LPNs, LMHTs, social workers and counselors will earn 3 contact hours for attending this course. ACHAs will earn 3 (A) hours.

$36.00

XNC 2799
Building Consensus
Decisions made in health care continue to come under close scrutiny, making it vital to apply a sound decision-making process and reach consensus on all decisions. This course centers on the dynamics of groups coming to agreement and the importance of having everyone’s commitment. Participants learn seven techniques for making clear, high-quality decisions that ensure the buy-in and commitment of staff. RNs, LPNs, LMHTs, social workers, and counselors will earn 3 contact hours. ACHAs will earn 3 (A) hours.

$36.00

XNC 2800
Integrative Approach to a Healthy Lifestyle: A Visionary’s Legacy
In the modern world of medical practice, illness is most often treated for the symptoms after the fact, rather than discovering the cause and providing treatment to stop and reverse the disease process. This seminar will focus on how we unknowingly sabotage our lives, health and happiness by our daily habits. You will learn about solutions to health problems through cellular approach to whole-body healing.

$20.00

XNC 2801
Ancillary Psychotherapies: Experience a New Dimension
Gain new skills that will augment and compliment all types of counseling practices. These therapies have the ability to encourage insight, soften polarities, enhance creative problem-solving, and enhance healthy boundary setting. These therapies offer new skills for all clinicians working with clients who may not respond to traditional therapy techniques. RNs, LPNs, LMHTs, social workers and counselors will earn 6 contact hours.

$72.00

XNC 2802
Social Gerontology: An Overview
Understanding and meeting the needs of elders has come to the forefront of healthcare as the population becomes older. Older people today are not the same as their grandparents. They expect more, are more verbal, and will live far longer. Lifestyles, employment, retirement and healthcare needs are different so will our approach to caring for them. This workshop will explore the demographic factors of the aging population, normal biological, psychological and social changes that occur in aging adults. The causes, symptoms, and manifestations of depression and Alzheimer’s Disease will be reviewed also. Participants will learn to compare and contrast aging in different environments. Students will also learn to identify the stages of grief and the stages of retirement. RNs, LPNs, LMHTs, social workers and counselors will earn 6 contact hours. ACHAs will earn 6 (RC) hours. Approval is pending for OTs and PTs.
Improving Staff Performance Part I
It's up to the manager to immediately address performance or work-habit issues with employees. Failing to do so can have a devastating effect on the morale and the overall performance of the entire group. This course equips managers with the skills to help people put together improvement plans, conduct effective improvement discussions, and handle the challenges that might arise when doing so. RNs, LPNs, LMHTs, social workers and counselors will earn 3 contact hours. ACHAS will earn 3 (A) hours.

Improving Staff Performance Part 2
This course focuses on the importance of follow-up coaching or reinforcement for performance or work habit problems. Managers need to reinforce continued improvement. RNs, LPNs, LMHTs, social workers and counselors will earn 3 contact hours.

HandLab Cassting Motion to Mobilize Stiffness
A description is not available for this course.

Communicating Effectively With Clients Who Have Dementia
Currently in America there are 5 million persons with Alzheimer's disease. This number will steadily increase as the Baby Boomer generation enters old age. Advances in medical treatment increase the survival rates of stroke victims, but often leave them with communication deficits. Healthcare professionals in all fields will increasingly need to develop skills to effectively interact with these types of clients that have language and functional deficits. RNs, LPNs, LMHTs, social workers, will earn 3 contact hours. ACHAs will earn 3 (RC) hours. Approval is pending for OTs and PTs.

Paradigm Shifts in End-of-Life Care
This seminar will acquaint the Healthcare Provider with the changing view of end-of life care, and to help them be comfortable in making the appropriate transition from cure to palliation in individual cases involving end-of-live care. As our population ages and demographics change, paradigm shifts are necessary to incorporate this new model of care into the mainstream. Area professionals will speak about hospice and palliative care, pain management, hospice documentation, understanding grief, and death and dying. RNs, LPNs, LMHTS, social workers and counselors will earn 6 contact hours. ACHAs will earn 6 (RC) hours. Approval is pending for OTs and PTs.

Jolene Brackey
A description is not available for this course.
Geriatric Education Research Training Institute Comprehensive Orientation LTC
This course will provide extensive training in understanding how to improve the quality of life for all long term care residents through resident rights and the movement toward changing the culture of care to a homelike environment, focused on the person's individual strengths, needs, and desires. Interactive education relative to effective communication skills, conflict resolution, and team building for healthy employee habits that help prevent stress and burnout will also be included. The values of dependability, responsibility, respect, dignity, integrity and honesty will be explored and you will have the opportunity to examine and traits to incorporate into personality identity. Education in dementia and how these illness affect the resident's ability to communicate and meet their own needs will be emphasized so that greater understanding and skill can be developed in working with these special individuals.

$30.00
XNC 2816
Geriatric Education Research Training Institute Management Leadership in Long-term Care
This dynamic and interactive course is for all managers in all departments of any long-term care organization. This course is designed to develop managerial skills in order to be successful in the areas of budget, staffing, hiring, leadership and understanding their role as a manager in this highly regulated and complex industry. The participant will first grow in understanding of their own leadership style by completing the DISC personal profile and then applying those strengths to their own natural ability to lead and impact the outcome for their departments.

$12.00
XNC 2817
Understanding Alzheimer's Disease
Every participant in this course will receive a through knowledge of the specific ways in which dementia changes the person's ability to think, solve problems, perform usual tasks, speak and understand language and perceives the world around them. Each student will come away with specific, proven ways to approach, interact, and plan care for these residents. The medications and treatments for dementia and research on possible cures will be discussed.

$12.00
XNC 2830
Intermediate ICD-9 Coding
This course is designed for those with a background with ICD-9 coding. It will review the use of the ICD-9 CDM along with the official guidelines for coding and reporting developed by the Centers for Medicare and Medicaid Services. Hands on coding scenarios will be presented to challenge the participant in their coding knowledge. Code changes for 2005 will be reviewed. If you would like to do a general overview of your coding techniques, plan on attending this session. AAPC approval is pending.

$72.00
XNC 2835
Nutritional Supplements: What Do the Labels Really Mean?
Nutritional supplements - do we really need them? If we really should be getting our daily dose, what should be in that tablet, spoon or glass? How about a little green tea extract with your calcium and folic acid! This seminar will explore the realities and myths surrounding this multi-million dollar business. The workshop will be interactive and participants are encouraged to bring product labels to discuss and evaluate. RNs, LPNs, LMHTs, social workers, counselors, psychologists, LMTs, dentists and dental hygienists will earn 3 contact hours. ACHAs will earn 3 (RC) hours. Approval is pending for OTs and PTs.
Estate Planning 101: What the Health Care Provider Should Know About End of Life Legal Issues

What is a power of attorney? How does it differ from a will? Do my patients have a living will? Am I prepared to follow it? How can elderly patients protect their assets? Where can my clients go to get the proper guidance? End of life legal issues are an important part of healthcare. As the population ages, there will be a greater need for caregivers to have basic knowledge of these subjects. This course will outline the basic questions that may come up when dealing with patients facing end of life choices. The legal obligations of the healthcare provider will also be covered along with the different forms that the provider may come into contact with. RNs, LPNs, LMHTs, and LMTs will earn 3 contact hours. ACHAs will earn 3 (A) hours. Approval is pending for OTs and PTs.

Addictions: Designer Drugs, Designer Interventions

This course is designed to familiarize the participant with addiction, the disease model, various models of treatment, and the role of psychotherapy in addiction treatment. We will review many of the more common drugs and the newer designer and "date" drugs. RNs, LPNs, LMHTs, social workers, counselors and psychologists will earn 6 contact hours for attending this seminar. This program meets social worker requirements for DSM-IV education.

Ethics: Philosophical Morality, Written Ethics and Practical Application

Ethics is a general term for what is often described as the "science of morality". This seminar will provide an understanding of the four fundamental principles of morals along with their underlying foundation. This course will also detail ethics common to mental health practitioners, and will acquaint you with means of protecting your ethical practice from malpractice claims and litigation. RNs, LPNs, LMHTs, social workers, counselors and psychologists will earn 3 contact hours for attending this seminar. This program meets the mental health ethics requirement established by the Kansas Behavioral Sciences Regulatory Board.

Palliative Care: A Team Approach to Medical Care

This seminar will review the definition, history and evolution of palliative care and it's role within our health care system. Indications for palliative care, the assessment and management of pain and other distressing symptoms will be addressed. This course will review patient psychosocial and spiritual needs and hospital discharge planning. The development and role nursing, pharmacy, counseling, and spirituality in a hospital based palliative care team will be explored. Case studies will be used to illustrate team interaction to fulfill patient and family needs. RNs, LPNs, LMHTs, LMTs, social workers, counselors and psychologists will earn 4 contact hours. ACHAs will earn 4 (RC) hours. Approval is pending for OTs and PTs.

Precepting-Leadership: Bridging the Gap for Recruiting, Retention and Excellence

In today’s health care crises with a decrease in health care professionals and the cost containment crises, it is essential to provide a structured, supportive, learning environment while continuing to teach excellence in practice. RNs, LPNs,
LMHTs, and LMTs will earn 3 contact hours. ACHAs will earn 3 (RC) hours. Approval is pending for OTs and PTs.

$36.00
XNC 2865

Weight Loss Revolution - or is it a Revolt? Intelligent Weight Loss for Adults and Kids
It is a well-known, but poorly applied understanding in our American culture that physical inactivity and poor nutrition have been identified as a leading cause of mortality in the US. In 2000, about 400,000 deaths were linked to these behaviors and this represents a 33% increase since 1990. The prevalence of obesity is considered to be a major mediator of these increases. The changes in statistics related to children have also increased at an alarming rate and if not reversed in the near future, the combination of poor diet and inactivity may soon become the number one cause of death in America. This seminar will focus the myths and realities of obesity, nutrition and exercise as they pertain to a healthy lifestyle for adults and children. RNs, LPNs, LMHTs, social workers, counselors, dentists and dental hygienists will earn 3 contact hours. ACHAs will earn 3 (RC) hours. Approval is pending for OTs and PTs.

$36.00
XNC 2870

MIS: Minimally Invasive Surgery for Hip and Knee Replacement
Golfer, Jack Nicklaus and probably someone you know personally, are two of the 165,000 Americans who have undergone hip joint replacement surgery and the lengthy recovery process. Minimally Invasive Surgery (MIS) is addressing many issues associated with conventional/traditional joint replacement procedures. Reduction in the size of incision, reduced tissue trauma, decreased hospital and recovery time combine to make MIS a viable alternative. This seminar will explore this new procedure and how it will impact the patient and caregiver alike. RNs, LPNs, LMHTs, and LMTs will earn 3 contact hours. ACHAs will earn 3 (RC) hours. Approval is pending for OTs and PTs.

$36.00
XNC 2875

Dependent Adult/Elder Abuse: Identifying the Problem and Seeking Solutions
The elderly population is increasing, especially with the baby boomers reaching retirement. This will only increase the challenges the medical community already faces in providing adequate care to dependant adults. As the care for dependant adults increases the strains on the medical community will also increase. These strains can only promote an increase in fraudulent activity against our most vulnerable members of society. This course will explore the need for a combined law enforcement and medical professionals approach to study, detect, treat, prosecute, and most importantly, prevent elder abuse, neglect and exploitation. RNs, LPNs, LMHTs, social workers, counselors, LMTs, dentists and dental hygienists will earn 3 contact hours. ACHAs will earn 3 (A) hours. Approval is pending for OTs and PTs.

$36.00
XNC 2880

Allergic Diseases: Allergic Rhinitis, Food Allergies, Atopic Dermatitis
A worldwide increase in allergic diseases has lead to a rise in patient visits to the physician, missed school days, absenteeism at work, and healthcare costs. In fact, allergies are one of the most frequent reasons for a patient to visit a physician. This seminar will focus on the many diseases that are caused by allergies and will help sort out these diseases and the different treatments that are available. RNs, LPNs, LMHTs, social workers, counselors, LMTs, dentists and dental hygienists will earn 3 contact hours. ACHAs will earn 3 (RC) hours. Approval is pending for OTs and PTs.
New Concepts Regarding Polycystic Ovarian Disease
Polycystic Ovarian Disease (PCO) will occur in approximately ten percent of women of reproductive age in the U.S. with an initial onset after menarche. This seminar will discuss classic symptoms, long term risks and effects and variable treatment options based on the patient conditions. RNs, LPNs, LMHTs, and LMTs earn 3 contact hours. ACHAs will earn 3 (RC) hours. Approval is pending for OTs and PTs.

Work Smart, Not Hard: Guide to Improved Workplace Ergonomics/Prevention of Repetitive Stress Injury
Repetitive stress injuries (RSI's) in the workplace are pervasive, affecting the employee and employer in lost time at work, diminished productivity, and lowered morale. Additionally, RSI's translate to higher costs in conducting business due to an increase in workman's compensation claims. This interactive course will explore the major causative factors of RSI's and both immediate and long-term prevention methods. RNs, LPNs, LMHTs and LMTs will earn 3 contact hours. ACHAs will earn 4 (A) hours. Approval is pending for OTs and PTs.

Common Anorectal Problems and Treatments
Colorectal cancer is the second most common cancer in the United States, striking 140,000 people annually and causing 60,000 deaths. Irritable bowel syndrome (IBS) is a common disorder affecting up to 30 percent of the population, and hemorrhoids are one of the most common ailments known. This seminar will look at common anorectal problems and treatments including hemorrhoids, fissures and incontinence. This course will explore the decision making process involved in laparoscopic vs open colon surgery and the latest colon surgical equipment will be reviewed. RNs, LPNs, LMHTs, and LMTs will earn 3 contact hours. ACHAs will earn 3 (A) hours. Approval is pending for OTs and PTs.

The Health Care Professional Puzzle: How to Make All the Pieces Fit
For changes to occur in today's challenging healthcare world, professionals must speak with one unified voice and collaborate along the full continuum. Many times nurses see obstacles with physicians, physical therapists see obstacles with nurses, case managers see obstacles with any treatment team player and all healthcare workers encounter obstacles with the payer source. This seminar will encourage the participant to look at the full length of healthcare while developing methods and ideas that will foster communication, build teams and form relationships with all healthcare professionals. These situations will be examined and strategies designed to improve the working relationship. The changes can bring about increased effectiveness and value to the healthcare consumer. RNs, LPNs, LMHTs, social workers, counselors, LMTs, dentists and dental hygienists will earn 3 contact hours. ACHAs will earn 3 (A) hours. Approval is pending for LMTs, OTs and PTs.

Knowledge Overload
Today, healthcare knowledge can be obtained in many formats. The Internet, professional publications, journals and seminars are all valid resources but, as a whole, the information can be overwhelming to the professional and consumer
This workshop will define a model for those involved in healthcare resource management to assist in their expectation of knowledge, the appropriate use of knowledge and personal knowledge overload. RNs, LPNs, LMHTs, social workers, counselors, LMTs, dentists and dental hygienists will earn 3 contact hours. ACHAs will earn 3 (RC) hours. Approval is pending for OTs and PTs.

$36.00

XNC 3000

Improving Care for People with Asthma

Few things are more frightening than feeling as if you can't breathe and for the 13 million Americans who suffer from asthma, management of their disease is as essential as their next breath. Recognizing the signs and symptoms of asthma and its triggers, designing an appropriate treatment program and action plan are major components in disease management. This seminar will look at patient education and many other components that combine to improve the quality of care for people with asthma. RNs, LPNs, LMHTs, and LMTs, will earn 3 contact hours. ACHAs will earn 3 (A) hours. Approval is pending for OTs and PTs.

$36.00

XNC 3005

What is Case Management?

In the world of healthcare, case management has become a term often used for the collaborative healthcare management process. Those practicing as case managers vary in background, education, professional discipline, work setting and experience. This workshop will cover the who, why, when and where of case management. We will also explore the opportunities in the field of case management. RNs, LPNs, LMHTs and LMTs, will earn 3 contact hours. ACHAs will earn 3 (A) hours. Approval is pending for OTs and PTs.

$36.00

XNC 3010

Patients Who Try Your Patience

This seminar is a primer on handling the most challenging behaviors in the hospital setting. Patients with personality disorders may display angry, manipulative, self-destructive behaviors that evoke frustration and anger in the caregivers. They adhere poorly to the treatment recommendations, develop severe anxiety, depression or intractable physical complaints, and may present with alcohol or drug problems. Patients with dementia or delirium can also become aggressive towards their caregivers while in the hospital. This course is designed to provide an overview of causes and characteristics and ways to manage and intervene with various types of challenging patient behaviors. RNs, LPNs, LMHTs, social workers, counselors, psychologists, LMTs, dentists and dental hygienists will earn 3 contact hours. ACHAs will earn 3 (RC) hours. Approval is pending for OTs and PTs.

$36.00

XNC 3015

Cardiovascular Disease and Depression: What's the Connection?

Coronary heart disease affects 6.9 million people, with 800,000 new heart attacks each year. One in three men and one in ten women will develop significant cardiovascular disease by the age of 60 and one quarter of the population has hypertension. Statistics alone would support frequent concurrence of cardiovascular disease and psychiatric disorders. Anxiety and depression are frequent after myocardial infarction and patients with significant cardiovascular disease appear to be at risk for developing psychopathology, particularly depression. This workshop will bring professionals up to date with the psychological aspects of cardiovascular diseases both prior to and after the illness. Emotional consequences, appropriate interventions, and treatments will be highlighted. RNs, LPNs, LMHTs, LMTs, social workers and counselors, LMTs will earn 3 contact hours. ACHAs will earn 3 (A) hours. Approval is OTs and PTs.
**Diabetes: Evaluating, Treating, and Preventing an Epidemic**

There are 13 million people in the U.S. who have been diagnosed with diabetes and 5.2 million who are unaware that they have this disease. Diabetes does not discriminate age, sex, ethnic or cultural boundaries. This seminar will discuss the complexity of this disease, the epidemiology, complications, prevention and treatment. The socio-economic impact on health care will also be addressed. RNs, LPNs, LMHTs, social workers, and counselors will earn 3 contact hours. ACHAs will earn 3 (RC) hours. Approval is pending for OTs and PTs.

**HIPAA: Update: Your Privacy and My Security**

This seminar will provide the participant with an update on the latest developments of the Health Insurance Portability and Accountability Act (HIPAA) of 1996. Content will focus on the Privacy Rule, on which new interpretation is available on a regular basis from the Office for Civil Rights, the enforcement arm of HIPAA, and on the Security Rule, which takes effect on April 21, 2005. In addition to didactic material, real world examples will be used to assist participants to critically analyze issues they are faced with in the healthcare environment. Strategies to achieve compliance under the Security Rule before April 21 will be explored and discussed. RNs, LPNs, LMHTs, social workers, counselors, LMTs, dentists and dental hygienists will earn 3 contact hours. ACHAs will earn 4 (A) hours. Approval is pending for OTs and PTs.

**Talking 9 to 5: Conversation and Conflict in the Workplace**

Conflict? "Oh NO!" ?If this reaction sounds familiar, then this course is for you! The average day in the life of a healthcare worker abounds with opportunities for miscommunication, disagreements, conflict, frustration and headaches. Being able to confidently handle the difficult interpersonal situations that happen every day can decrease the overall stress of the workday and puts you in the position of being able to give better care. Learn skills and insights that turn conflict and disagreements into opportunities for making things better. Find ways to feel more in control of yourself, and the situation. Feel better walking away from the conversation! whether or not everything went your way. RNs, LPNs, LMHTs, social workers, counselors, dentists and dental hygienists will earn 3 contact hours. ACHAs will earn 3 (A) hours. Approval is pending for OTs and PTs.

**Family Issues During Difficult Times**

Currently, the U.S. divorce rate is the highest in the world, tripling in the last 25 years and forty percent of all current marriages in the United States are 2nd and 3rd marriages. This seminar will acquaint mental health professionals, educators, childcare and healthcare providers with information about significant family issues of the day. The day is four interrelated sessions devoted to principles of enriching marriage, exploring the blended family, encouraging values in children and establishing effective discipline patterns. Upon completing this seminar, participants will have the understanding to provide meaningful intervention into each of these important family components. RNs, LPNs, LMHTs, social workers, counselors, psychologists, LMTs, dentists and dental hygienists will earn 3 contact hours. ACHAs will earn 3 (RC) hours.

**Coronary Artery Disease and Acute Coronary Syndrome**
Discussions in this class will include pathophysiology, diagnosis, risk stratification, treatments, and commonly used medications. RNs, LPNs, LMHTs, social workers, counselors, LMTs, dentists and dental hygienists will earn 3 contact hours. ACHAs will earn 3 (RC) hours. Approval is pending for OTs and PTs.

$36.00
XNC 3045

Refresh, Restore, Renew: Health Professionals Appreciation Day
As a health care professional, you serve a vital role in the community. We honor you with a day that focuses on caring for the mind, body and spirit. The morning will start with exercise strategies to help you make it through your workday. Following will be a little funny business to encourage a daily dose of laughter. The day will close with music to lift your spirits and soothe the soul. RNs, LPNs, LMHTs, social workers, counselors, psychologists, LMTs, dentists and dental hygienists will earn 6 contact hours. ACHAs will earn 3 (A) hours. Approval is pending for OTs and PTs.

$72.00
XNC 3050

Understanding and Dealing with Difficult Children
In the past few years there has been an array of information regarding dealing with difficult children and adolescents. This workshop is designed to help participants identify qualities and characteristics associated with normal and abnormal development of children and adolescents. It will distinguish common behavioral problems from more serious diagnostic concerns, such as disorders of depression, oppositional defiance, conduct, and hyperactivity. Participants will examine what parental patterns are associated with difficult behavior in children and explore behavioral techniques to discourage negative behavior patterns and encourage positive behavior patterns. RNs, LPNs, LMHTs, social workers, counselors, psychologists, LMTs, dentists and dental hygienists will earn 3 contact hours. This program meets social worker requirements for DSM-IV education.

$36.00
XNC 3055

Development and Maintenance of Intimate Relationships: What the Research Shows
In the past few years new research has surfaced to describe ways in which couples have dealt with relationships and development of intimacy. This workshop is designed to help participants identify this research and integrate the dynamics of this research into practice. The workshop will provide an understanding of healthy relationship development, premarital intimacy, and identify issues of couple discord. Participants will be able to help couples assess strengths and weaknesses of their patients’ relationships and identify and conceptualize thematic problems in relationships and develop strategies to deal with these concerns. A focus on sexual functioning will be addressed with techniques to assess and manage these issues in therapy. RNs, LPN, LMHTs, social workers, counselors and psychologists will earn 3 contact hours. This program meets social worker requirements for DSM-IV education.

$36.00
XNC 3060

Ethical Dilemmas at the End of Life
A description is not available for this course.

$25.00
XNC 3065

Issues After Breast Cancer
A conference to explore the clinical and emotional aspects of a breast cancer
diagnosis.

$55.00

XNC 3070

**Herpes: I to II, Chicken Pox to Zoster (More Than Ever About This Pesky Viral Family)**

The herpes viral family will be discussed including the pathophysiology, demographics, CDC recommendations for vaccination, common and atypical presentations. The testing methods and treatment modalities including antiviral therapies, newest clinical studies regarding treatment and transmission, as well as therapies for postherpetic neuralgia will be covered. We will dispel many myths we learned in school regarding the transmittability of herpes, and look at the newest clinical data regarding prevalence and methods of reducing transmission in the United States. RNs, LPNs, LMHTs, LMTs, social workers, counselors and dietitians will earn 3 contact hours for attending this course. ACHAs will earn 3 (E) hours. Approval is pending for OTs and PTs.

$36.00

XNC 3075

**Effective Presentation Skills for Healthcare Professionals**

You'll learn how to easily organize your thoughts, confidently present your information, and maintain audience interest. RNs, LPNs, LMHTs, social workers and dietitians will earn 5 contact hours for attending this course. ACHAs will earn 6 (A) hours. Approval is pending for OTs and PTs.

$72.00

XNC 3080

**Healthcare is a Contact Sport**

Let's face it, confused dialogue, noisy work areas, and failure to ask for clarification can create peril for your patients and customers - and frustration and lost time for you and your staff. This session combines humor and drama to help you turn frustrating communications into successful exchanges. This is a great all-purpose communication class for healthcare professionals. This interactive session teaches participants to "connect" with patients, family members and staff and keep misunderstanding and conflict to a minimum. RNs, LPNs, LMHTs, LMTs, social workers and dietitians will earn 5 contact hours for attending this course. ACHAs will earn 5 (A) hours. Approval is pending for OTs and PTs.

$60.00

XNC 3085

**How to Keep Cool with Difficult People and Build Better Work Relationships**

Today's workforce is diverse, each person carrying with them a unique set of values and communication styles. Add to this the fast pace and great stress of health care and you have the perfect formula for conflict within a work team. This workshop will help you understand difficult people and how to respond to them in a way that will help you get better results. You will also explore your own typical response patterns. Caution: some of the techniques may seem rude - but they work! RNs, LPNs, LMHTs, LMTs, social workers and dietitians will earn 3 contact hours for attending this course. ACHAs will earn 3 (RC) hours. Approval is pending for OTs and PTs.

$36.00

XNC 3090

**Healing With Humor: Therapeutic Humor for Healthcare Professionals**

A hearty laugh goes a long way in helping others feel good. This course is for healthcare professionals in all fields and is designed to provide participants with Smart Strategies to become more skilled at using therapeutic laughter, play and humor in a healthcare setting. Therapeutic humor is defined as "any intervention
that promotes health and wellness by stimulating a playful discovery or expression of the absurdity of life's situations." Laughter may be the best medicine; laughter mobilizes the patient's own forces of mind and body to combat pain and illness. RNS, LPNs, LMHTs, social workers and dietitians will earn 3 contact hours for attending this course. ACHAs will earn 3 (RC) hours. Approval is pending for OTs and PTs.

$36.00  
XNC 3095  
**Dealing Effectively With Generational Differences**

"Strive to reach the level of the enthusiasm of youth balanced with the wisdom of age." This quote by an unknown person captures one of the cornerstones of this seminar. We need to realize the "other generation" has much to offer and when all the generational groups close the misunderstanding gap we will benefit from the wisdom and the enthusiasm each has to offer. Terminology, trends and types will be covered for the traditionalist, boomer, 'x'-er and 'y'-er. RNS, LPN, LMHTs, LMTs, social workers, dentists and dental hygienists will earn 4 contact hours for attending this seminar. ACHAs will earn 4 (RC) hours. Approval is pending for OTs and PTs.

$72.00  
XNC 3100  
**Contraindications for Massage Therapy: Lecture and Workshop**

This seminar will present vascular, dermatologic, cardiac and a variety of infectious conditions which would contraindicate massage therapy. RNS, LPN, LMHTs, and LMTs will earn 3 contact hours for attending this seminar. Approval is pending for OTs and PTs.

$36.00  
XNC 3105  
**Diagnosing Depression and Evaluating Suicide Risk**

The historical aspects of depression and suicide will be traced through art and literature; barriers to recognizing depression and the risk of suicide will be identified. RNS, LPNs, LMHTs, social workers and counselors will earn 3 contact hours.

$36.00  
XNC 3110  
**The Psychiatry of Sexuality**

Sexuality is one of the most meaningful and complicated aspects of a human life. Because our sexuality is so complicated, many things can go wrong. Over 40% of couples report a sexual problem at some time in their relationship. It is helpful to view these problems from a medical perspective, since medical and psychological interventions are often therapeutic. We will trace the historical aspects, including ancient documents, and the work of Kinsey, Masters and Johnson and others. RN, LPNs, LMHTs, social workers, counselors and psychologists will earn 3 contact hours.

$36.00  
XNC 3115  
**A History of Psychiatry: A Pill for Every Problem?**

Mental illness is as old as mankind, but the concept of a medical specialist responsible for diagnosing and managing disturbances of emotion and behavior is a relatively recent development historical development. Why is it important to expand our medical understanding of emotion and behavior? Psychiatry has much to offer, but has it promised too much? RN, LPNs, LMHTs, social workers, counselors and psychologists will earn 3 contact hours for attending this seminar.
Thanks Goodness It’s Monday: Putting FUN to Work

Is it possible for work to be fun? Can fun be a strategic weapon to achieve extraordinary results? Southwest Airlines, Men’s Warehouse and many other organizations have found that it may be one of the most important traits of highly successful businesses. Fun decreases stress and increases productivity, creativity, and "want to" in organizations. Learn the steps to create a fun work environment, create an action plan to make it happen, and take away fun energizers to infuse your work life with fun. RNs, LPNs, LMHTs, LMTs, social workers and counselors will earn 4 contact hours for attending this workshop. Kansas ACHAs will earn 4 (RC) hours. Approval is pending for OTs and PTs.

The Power of Empowerment and the Secret to Forgiveness

When serving and leading others in a professional setting, we must be clear about who we are in relation to others. This interactive course provides health professionals with tips, tools, and insights for encouraging healthy connections between their patients and others. The course also helps professionals with the self-development they need to model healthy connections through their interaction with patients and other health professionals. Join us to learn the secrets to empowerment and forgiveness in your life and the lives of your patients. You will receive a signed copy of the book, Life Compass for Women. RNs, LPNs, LMHTs, LMTs, social workers and dietitians will earn 3 contact hours for attending this course. ACHAs will earn 3 (RC) hours. Approval is pending for OTs and PTs.

You Work Where? Nursing Homes Ain’t What They Used to Be!

Tied up, doped up, bad food and bad smells are what most outsiders think of when the words nursing home are mentioned. Few know that a dynamic transformation is underway to change the life of residents and the staff who care for them in America’s long-term care facilities. The medical model is being replaced with a humanistic, life affirming psychosocial model that focuses on individuality, freedom of choice, meaningful pursuits and yes, even the Red Hat Society! In this workshop you will come to view nursing homes in an entirely different way and learn about the changes that are yet to come that will forever change the way we experience nursing homes. RNs, LPNs, LMHTs, dietitians, social workers, and dentists will earn 3 contact hours for attending this course. ACHAs will earn 3 (RC) hours. Approval is pending for OTs and PTs.

Infidelity: A Systems Perspective

Infidelity usually creates an emotional storm of betrayal, hurt, anger, distrust, and guilt. Couples vary in their ability to slow the emotional process enough to understand the infidelity and to put it in the context of the family. Those who are motivated to learn from this symptom can strengthen their marriage and/or take another step in differentiating a self. In this seminar, you will explore Bowen family systems theory as a framework for understanding infidelity and examine infidelity as a symptom of the family system. You will learn about a natural systems view of infidelity, infidelity as triangling, and the influence of the multigenerational family, emotional cutoff, anxiety, and differentiation of self. In the second part of the Seminar, you will explore the clinician’s challenge to apply theory in the clinical setting. You will learn how to work with the emotional intensity, factors affecting resolution of the affair, ways of moving beyond the affair to the emotional process in the marriage and family, and concepts related to differentiation of self. Case examples will be presented to illustrate the clinical process. Social workers, psychologists, counselors and mental health nurse
clinicians will earn 7 contact hours for attending this workshop.

$84.00
XNC 3140

CPR for Health Professionals
This course includes discussion of the cardiac and respiratory systems. The student will demonstrate CPR skills and airway obstruction techniques. With successful completion of this course, the student will receive Basic Rescuer level (Health Care Provider) affirmation. In-state tuition $35 total. Eight (8) contact hrs. For additional information go to the jccc.net web page: click on classes; click on credit class search; click the semester; course prefix is AVHO Health Occupations. Click on CRN number for information.

$35.00
XNC 3145

CPC Review Course
Brush up on your coding skills with this CPC review course. This course will prepare students for the Certified Professional Coders exam given by the American Academy of Professional Coders. This is not an introductory course. Coding and guidelines will be discussed as well as test taking techniques through a series of documentation scenarios.

$125.00
XNC 3150

Weight Management, Losing Weight Has Never Been Easy
During the course, students will be taught to understand how and why we get fat. The ways and methods to controlling appetite, achieving our ideal weight will be discussed.

$144.00
XNC 3155

Performance Excellence for Direct Care Professionals
Ethics and integrity, personal accountability, teamwork and professionalism for members of the direct care team are vital to maintaining quality care. This course will address the need for professionalism and provide participants with Smart Strategies to become more skilled and professional members of the direct care team. This audience includes the direct care staffs of hospitals, home health care agencies, nursing home and hospice staffs. It is also appropriate for mental health professionals including staff of group homes for the developmentally disabled, substance abuse counselors and work coaches. RNs, LPNs and LMHTs will earn 3 contact hours. Kansas ACHAs will earn 3 (RC) hours.

$36.00
XNC 3160

Updates on Mechanical Ventilation
This course will be a review of the concepts of mechanical ventilation and will include the indications and clinical conditions that lead to mechanical ventilation. The modes of ventilation and the appropriateness will be discussed. Manipulation of ventilator settings and troubleshooting of ventilator alarms and correction of those alarms will also be covered. RNs, LPNs, and LMHTs will receive 3 contact hours.

$36.00
XNC 3165

Current Trends in Ischemic Heart Disease
In this class we will review the current approaches to the single biggest cause of death in the U.S., coronary heart disease. Participants will learn the causes, prevalence, treatment and preventive measures. Current trends as per the ACC/AHA practice guidelines will be reviewed with special emphasis on the preventive measures. RNs and LPNs will earn 3 contact hours. Kansas ACHAs will earn 3 (E) hours. Approval is pending for OTs and PTs.

$36.00  
XNC 3170  
Cardiovascular Drugs and the Failing Heart  
Coming from instructor

$72.00  
XNC 3175  
Lifestyle Management of Metabolic Syndrome  
Metabolic Syndrome, also known as insulin resistance, syndrome X pre-diabetes and dysglycemia, has become an epidemic in modern America. A result of genetic predisposition interacting with poor diet and lifestyle choices, this serious condition can be cured. The way a person eats, exercises and lives can make all the difference. Come learn about the ways lifestyle can be modified to cure this common syndrome. We will discuss specific dietary changes you can make, exercise programs and stress management techniques you can use to help with weight loss and to correct elevated blood pressure, high cholesterol and high or low blood sugar problems. RNs, LPNs, LMHTs, counselors and social workers will earn 3 contact hours. ACHAs will earn 3 (RC) hours. Approval is pending for OTs and PTs.

$36.00  
XNC 3180  
Osteoporosis: Incidence, Cost, Pathology and Treatment  
This lecture will provide information on osteoporosis as a debilitating, but preventable disease. The presentation will include data on the structure and formation of bone, the classification of osteoporosis as a diagnosis and risk factors of the disease. The material will detail the incidence facts and figures, treatment options and financial costs. New therapies in research and clinical study dilemmas will also be covered. RNs, LPNs, LMHTs, will earn 3 contact hours. Kansas ACHAs will earn 3 (RC) hours. Approval is pending for OTs and PTs.

$36.00  
XNC 3185  
The ABCs of ABGs: Clinical Application of Arterial Blood Gas Analysis  
This practical presentation emphasizes the interpretation and impression of arterial blood gas results and the clinical implications of changes in respiratory, metabolic and/or oxygenation status. RNs, and LPNs will earn 4 contact hours.

$36.00  
XNC 3190  
Heart Failure  
Heart failure is the final common pathway for a number of conditions like hypertension, acute coronary syndromes, myocardial infarction and any other that reduces the hearts' pumping action. In this class the participants will learn the definition, causes, diagnostic approaches and treatment of heart failure. Special emphasis will be placed on the preventive actions where applicable and also on the rehabilitative measures for the afflicted based on the American College of Cardiology/American Heart Association (ACC/AHA) practice guidelines. RNs and LPNs will earn 3 contact hours. Kansas ACHAs will earn 3 (RC) hours. Approval is pending for OTs and PTs.
$36.00
XNC 3195
Ethical Social Work Practice
This course will review and discuss the Social Work Code of Ethics including the six core values: service; social justice; dignity and worth of the person; importance of human relationships; integrity and competence. Participants will have an opportunity to examine and practice utilizing the direction of the Code of Ethics in regards to particular case vignettes. Social workers and counselors will earn 3 contact hours. (This course meets the DSM-IV requirement)

$36.00
XNC 3200
Finding Strengths and Solutions with Families
This course will identify and discuss key components of finding strengths and solutions with families facing multiple risk factors. An interactive course for professionals designed to provide tools to best attain assessment, engagement and goal setting with families. RNs, LPNs, social workers and counselors will earn 3 contact hours.

$36.00
XNC 3205
Best Practices in working with Offenders of Domestic Violence
Billions of dollars are spent each year for physical and mental health medical treatment, lost wages, and poor job productivity as a result of domestic violence. Accordingly, individuals, organizations, communities, justice systems and governments are very interested in decreasing the incidents of domestic violence. This course evaluates the best practices established for the treatment modality of offenders of domestic violence. Further, this course will provide participants with materials and activities that may be utilized when working with offenders of domestic violence. RNs, LPNs, LMHTs, counselors and social workers will earn 3 contact hours.

$36.00
XNC 4000
Health Care is a Contact Sport
This session combines humor and drama to help turn frustrating communications into successful exchanges. This interactive session teaches participants to connect with their patients, family members, and staff to keep misunderstanding and conflict to a minimum.

$72.00
XNC 4001
Maintaining Relationships
Relationships determine the overall quality of life for healthcare providers and their clients and patients. Learn the five criteria for personal and professional relationships. Evaluate the interactions that you have with significant people in your life, at home and at work. Set an action plan in place for improving these relationships based on two practical models for determining health relationships and performance. Those who are responsible for giving feedback to employees and those who are committed to self-improvement within the healthcare environment will appreciate the models.

$48.00
XNC 4002
Staying Calm in Chaos
This course blends stress, time, priority and change management into an
integrated response to the ever-demanding conditions of the healthcare industry. A spoonful of fun and a dash of humor will help you swallow the workplace medicine. You will learn the tools for coping with and taking charge of change while having more control over your stressors and priorities, including time crunches. Be calm for yourself, your patients and their families, and your coworkers; in doing so, you will create a healing environment.

$48.00
XNC 4003
Business Etiquette for HC Prof
A description is not available for this course.

$36.00
XNC 4004
Chronic Illness Alternatives
This course emphasizes evaluating and intervening illnesses with alternative management methods.

$36.00
XNC 4005
Women and Heart Disease
You will learn about gender differences as they relate to risk factors of heart disease in women. The unique characteristics of this silent epidemic will be explored.

$36.00
XNC 4006
Survivors of Suicide
This national satellite conference will allow participants to hear the current state of research on suicide, suicide prevention, and post-intervention activities occurring throughout the country.

$24.00
XNC 4007
Balance in A Busy Life
What does balance look like to you? Do you long for some quiet time just to 'be' instead of 'do'? You are not alone; most workers lack balance in their busy lives. They feel stuck in their 'busyness' and sucked dry of energy. Renewal begins with reflection on the things that really matter in your life. RN, LPNs, LMHTs and social workers will earn 3 contact hours. ACHAs will earn 3 (A) hours.

$36.00
XNC 4008
Getting Your Groove Back
A description is not available for this course.

$36.00
XNC 4009
Case Management
This class will identify the required credentials to enter the field of case management. Job duties and requirements to seek employment will be covered as well.
$36.00
XNC 5000
Nitrous Oxide Sedation
A description is not available for this course.

$150.00
XNC 5001
Refined Clinical Techniques for Dental Hygienists
This course involves one-on-one instruction with emphasis on dental hygiene clinical skills. The dental hygiene instructor will assess basic clinical skills and identify strategies for improvement. Course participants will practice clinical skills at the JCCC Dental Hygiene Clinic. Paper products and disposable supplies will be provided. Student professional liability insurance is required. NOTE: This course is designed to refine basic clinical techniques and in no way guarantees successful completion of licensing exams.

$490.00
XNC 5002
Refresher Course for Dental Hygienists
This course provides a comprehensive review and update of current dental hygiene practice and techniques. It includes 16 hours of didactic instruction and 32 hours of one-on-one clinical practice. Meeting all requirements of the Kansas Central Board, this course is designed to assist dental hygienists re-entering practice to increase competency and confidence.

$1,000.00
XNC 5004
Aromatherapy I
This class will focus on the benefits of aromatherapy in massage. Safe handling and blending essential oils will be practiced.

$36.00
XNC 5005
Reiki I
Learn about Reiki---a natural method of healing based on the application of energy. This form of healing is easy to learn and simple to use.

$48.00
XNC 5006
Reiki II
After learning the basics, you can discover various techniques of using Reiki to assist in healing.

$48.00
XNC 5007
Reiki III Master Level
This third degree level course is designed for those who wish to become a Reiki teacher.
Special Needs Child Massage
This course will teach ways in which massage therapists and other health professionals can adapt and design techniques to provide massage for infants, children, and children with special needs. Contraindications will also be discussed.

$72.00
XNC 5009

Touching the Elderly
This course teaches functional ways in which massage therapists and other health professionals can adapt and design specific techniques and integrate therapeutic sequences to provide massage for the elderly client.

$48.00
XNC 5010

Aromatherapy II
Participants will learn the basics of essential oil chemistry and will become familiar with carrier oils and learn to blend them.

$36.00
XNC 5110

Failing Heart: Old and New Approaches
A description is not available for this course.

$27.00
XNC 8000

Essential Leadership Skills
A description is not available for this course.

$54.00
XNC 8001

Essential Communication Skills
A description is not available for this course.

$54.00
XNC 8002

Coaching Job Skills
A description is not available for this course.

$54.00
XNC 8003

Improving Work Habits
A description is not available for this course.

$54.00
XNC 8004

Resolving Conflicts
A description is not available for this course.

$54.00
XNC 8005
Supporting Change
A description is not available for this course.

$54.00

XNC 8006
Effective Discipline
A description is not available for this course.

$54.00

XNC 8007
Delegating
A description is not available for this course.

$54.00

XNC 8008
Communicating Up
A description is not available for this course.

$54.00

XNC 8009
Managing Complaints
A description is not available for this course.

$54.00

XNC 8010
Performance Goals/Standards
A description is not available for this course.

$54.00

XNC 8011
Performance Feedback
A description is not available for this course.

$54.00

XNC 8012
Syncope
Fainting or syncope prompts about three percent of emergency room visits and it accounts for up to six percent of hospital admissions. This course is designed to provide better understanding of the prevalence and etiology of syncope, plus the evaluation, diagnosis, testing and therapy for a patient with syncope.

$36.00

XNC 8013
Preventive Cardiology
The time honored adage "prevention is better than a cure" rings true for cardiovascular disease (CVD) and the major risk factors leading to Obesity and Hyperlipidemia. This course will review current concepts in Hyperlipidemia, review prevalence, recognition and current concepts in management of obesity,
and provide guidelines for exercise as a treatment and a tool for prevention.

$90.00  
XNC 8014  
Valvular Heart Disease  
This course will provide a review of the most important aspects of valvular heart disease with major consideration of the Mitral and Aortic valves and the current recommended approach to their management.

$48.00  
XNC 8015  
Guide to Cardiovascular Medications  
Cardiovascular disease remains the number one cause of mortality in the US and is highly researched for the development of new treatments. This course will review current and newly approved medications for cardiovascular disease.

$72.00  
XNC 8022  
Cardiovascular Physical Assessment  
Nursing assessment is the foundation for providing care. Proficiency in conducting a concise and systematic history and physical assessment is a key element. This program will provide the nurse with the skills to perform an adult cardiac assessment and to differentiate between normal and abnormal findings. RNs, LPNs, and LMHTs will earn 4 contact hours.

$48.00  
XNC 8023  
Patience with Patients! Successful Clinical Visits With Person With Alzheimer’s  
The person with dementia often becomes ill with other conditions and will need to visit a doctor or spend time in a hospital. The underlying illness that caused the visit to the doctor or hospital as well as the unfamiliar environment, treatments and procedures will precipitate in an agitated state for the patient. There are steps you can take to prepare for the visit, manage your approach and create a more successful experience. RNs, LPNs, LMHTs, social workers and counselors will earn 2.5 contact hours. ACHAs will earn 2.5 (RC) hours.

$30.00  
XNC 8028  
Mind Body Healing  
Can the human mind heal the body? Learn more about mind-body healing methods such as meditation, visual imagery, hypnosis and prayer. Discover why more and more doctors make mind-body healing methods part of their treatments. RNs, LPNs, LMHTs, social workers and counselors will earn 2 contact hours.

$24.00  
XNC 8030  
Ethical Social Work Practice  
This course examines the morals and values of social work practice in accordance with the Code of Ethics. Real practice examples and discussion are included in this course to promote comprehension and provide participants with practical application of ethics in their profession. Social workers and counselors will earn 3 contact hours.

$36.00
XNC 8032

Home Visitor's Guide to Best Practice
This course will identify and discuss key components of successful home visitation services with families facing multiple risk factors. An interactive course for professionals designed to provide tools to best attain engagement and goal setting with families. RNs, LPNs, LMHTs, social workers and counselors will earn 3 contact hours.

$36.00

XNC 8036

Psychological and Sexual Issues Related to Infertility
A description is not available for this course.

$36.00

XNC 8040

Emerging Infectious Diseases
This program will provide information about the symptoms, evaluation and management of various insect borne and infectious diseases affecting Americans currently. RNs, LPNs, and LMHTs will earn 4 contact hours. ACHAs will earn 4 (RC hours.

$48.00

XNC 8043

Open Adoption
A description is not available for this course.

$36.00

XNC 8045

Prevention of Workplace Violence-Operational Plan
Creating a climate for civility is the first step in prevention of workplace violence. The course manual will serve as a tool for formulating strategies and identifying "triggers" of workplace violence. The course will cover typical profiles of violent employees, supervisory interventions, resources, do's and don'ts and an observation checklist. Be prepared so you can nurture a "safe" work environment. RNs, LPNs, and LMHTs, social workers and counselors will earn 4 contact hours.

$48.00

XNC 8047

Treatment & Prevention of Domestic Violence
Today, anger issues filter into our homes, the work place, our families and our relationships with others. Witness first hand how you can intervene and stop the violence! The course manual will serve as a tool for practicing interventions that can bring a halt to inappropriate behaviors. The course will cover case management of court-referred mediation, domestic violence and anger management programs. RNs, LPNs, LMHTs, social workers and counselors will earn 4 contact hours.

$48.00

XNC 8060

Corporate Compliance: Laws Affecting Healthcare
This course is designed for health care professionals who are responsible for maintaining Corporate Compliance within their facilities and for those who wish to learn about healthcare related law and how these laws affect their jobs. RNs, LPNs, LMHTs, and social workers will earn 3 contact hours.
**Common Interactions Between Herbal Medicines and Prescription Drugs**

In this course, important interactions between commonly used herbal medicines and prescription drugs will be covered in order to promote safety and efficacy for patients. The pharmacodynamics of major drug classes and herbal medicine classes will be reviewed. The identity of known direct molecular, absorptive and metabolic interactions between herbal medicines and prescription drugs will be covered. RNs, LPNs, and LMHTs will earn 5 contact hours.

**Common Interactions Between Rx Drugs, Nutrients and Nutriceuticals**

In this course, important interactions between prescription drugs and both nutrients and nutriceuticals will be covered. The pharmacodynamics of major drug classes and the biological actions of major micronutrients will be reviewed. The following will be identified: Nutrient depletions caused by pharmaceuticals and the known molecular interactions between pharmaceuticals and micronutrients. RNs, LPNs, LMHTs and social workers will earn 4.5 contact hours.

**Performing a Holistic Intake in a Modern Medical Outpatient Environment**

This course will explore methods of expanding medical intakes in an outpatient environment. Emphasis will be placed on the importance of holistic medical intakes in furthering our understanding of medical conditions. The course will identify underlying commonalities among medical conditions and will identify the vocational, monetary, spiritual and emotional influences on health. RNs, LPNs, LMHTs, social workers and counselors will earn 3 contact hours.

**Interdisciplinary Referrals**

This course is an introduction to the important professional aspects of complementary medicine. Proper professional referral etiquette between conventional and alternative healthcare providers will be covered with an emphasis on models of complementary medicine working in other areas of the country. RNs, LPNs, LMHTs, social workers and counselors will earn 2.5 contact hours.

**Health Prof Independent Study (XNH)**

**XNH 1000**

**Avoiding Medication Errors**

This independent study describes possible causes and contributing factors to medication errors and reviews ways to avoid them. RNs, LPNs and LMHTs will earn 6 contact hours for completing this course.
Assessment of the Geriatric Patient
This independent study describes the nursing assessment of the geriatric patient. Emphasis is placed on recognizing the difference between changes due to normal aging and those due to illness. RNs and LPNs will earn 6 contact hours for completing this course. Kansas ACHAs will earn 6 (RC) contact hours.

Marketing Nursing at the Bedside
A description is not available for this course.

Assertiveness in Nursing
This independent study focuses on improving communication between the nurse and other people, including the patient, physician, manager and colleagues. The course guides you in developing assertive communication and behaviors, fundamental techniques needed for positive relationships, effective team-building and collaborative professional roles. RNs, LPNs and LMHTs will earn 6 contact hours for completing this course.

Efficient and Effective Care Plans
A description is not available for this course.

Writing the Professional Resume: Evaluating Your Professional Strengths
A description is not available for this course.

Time Management
A description is not available for this course.

Premature Infant
A description is not available for this course.

Burnout: Reducing Nursing Stressors
A description is not available for this course.
XNH 1045
Delegation for Nurses: Where and How to Delegate
This independent study covers delegation principles and strategies that can be used in many different applications. Successful delegation includes assigning responsibility, providing authority and requiring accountability. RNs and LPNs will earn 6 contact hours for completing this course.

$51.00

XNH 1050
Fatigue: Reducing Patient or Nurse Fatigue
This independent study focuses on the problem of fatigue. It covers the physiology of fatigue, investigates physical and emotional factors as causes and discusses preventive strategies that increase energy. RNs, LPNs and LMHTs will earn 6 contact hours for completing this course.

$51.00

XNH 1090
Assessment of the Family at Risk
A description is not available for this course.

$83.00

XNH 1100
Having Fun: AnIntroductory Guide to the Interdisciplinary Team
This independent study describes the qualities associated with highly effective teams, distinguishes functional and dysfunctional teams and explores the stages of team development. It provides an opportunity for you to identify the strengths of your personal work style as well as those of team members whose work styles are different from your own. RNs, LPNs and LMHTs will earn 6 contact hours for completing this course. Kansas ACHAs will earn 6 contact hours.

$53.00

XNH 1105
Ethical Questions: Challenges to Interdisciplinary Practice
This independent study discusses several values styles, provides a values profile to assist you to identify your own values and those of your team and explores the strengths and limitations of teams functioning with these styles. It identifies five ethical challenges to interdisciplinary practice and empowers teams to deal successfully with these challenges. RNs, LPNs and LMHTs will earn 6 contact hours for completing this course. Kansas ACHAs will earn 6 contact hours.

$53.00

XNH 1110
Patient Compliance: A New Look
This self-paced course identifies reasons that patients/clients do not comply with treatment recommendations, lists factors that influence compliance and discusses strategies to prevent and/or manage non-compliant behavior. RNs, LPNs, LMHTs and social workers will earn 5.4 contact hours for completing this course.

$59.00

XNH 1150
Effectively This self-paced course identifies common ways that health
professionals lose time as well as methods to assist them to use time more wisely. RNs, LPNs, LMHTs and social workers will earn 2.6 contact hours for completing this course.

$32.00
XNH 1155

Superachievers and Coping Strategies
This self-paced course defines the terms "excellence anxiety" and "role confusion," explores some of the expectations superachievers place upon themselves and explains eight techniques to enable health professionals to manage stress more effectively. RNs, LPNs, LMHTs and social workers will earn 2.4 contact hours.

$29.00
XNH 1180

Assertiveness: New Perspectives
This self-paced course identifies the benefits of assertive behavior, discusses fears that prevent assertive communication, describes characteristics of non-assertive behavior and provides seven strategies to enhance assertiveness skills. RNs, LPNs, LMHTs and social workers will earn 3.3 contact hours for completing this course.

$39.00
XNH 1190

Conflict Management: Skills for Uncertain Times
This self-paced course discusses potential benefits of conflict, styles commonly used to manage conflict and three steps of win-win negotiations. RNs, LPNs, LMHTs and social workers will earn 5 contact hours for completing this course. ACHAs will earn 5 (A) hours.

$55.00
XNH 1200

Beyond Sadness: Major Depressive Disorder
This self-paced course, available online or in booklet format, provides a comprehensive overview of the detection and treatment of major depressive disorder. RNs, LPNs, LMHTs and social workers will earn 4 contact hours for completing this course. ACHAs will earn 4 (RC) hours.

$48.00
XNH 1201

Dual Diagnosis: Treatment, Intervention and Relapse Prevention
This independent study identifies issues, treatment interventions and relapse prevention strategies for clients with an addiction and co-morbid psychiatric diagnosis. The course is designed for nurses and technicians in primary care and traditional mental health settings. RNs, LPNs and LMHTs will earn 3 contact hours for completing this course.

$29.00
XNH 1202

Aging and Spirituality: Implications for Nursing
This self-paced course provides a rationale for exploring the spiritual dimension with clients. RNs and LPNs will earn 3 contact hours for completing this course. ACHAs will earn 3(RC) hours.

$36.00
XNH 1300
Upset Workbook
This self-paced course discusses possible events when the health care professional is confronted by an upset individual and discusses strategies. RNs, LPNs, LMHTs and social workers will earn 8 contact hours for completing this course. ACHAs will earn 8 (A) hours.

$96.00

XNH 1305
Making the Connection: Keys to Quality Customer Service
This self-paced course discusses customer service approaches that make staff-patient interactions more meaningful, more enjoyable and less conflicted. RNs, LPNs, LMHTs and social workers will earn 5 contact hours for completing this course. NOTE: This course may not be taken with Taking Care of Residents.

$60.00

XNH 1310
Tactful Toughness: A Home Study Course for Helping Professionals
This self-paced course, available online and in booklet format, provides information about handling numerous "tough" situations—correcting or criticizing, setting expectations, stating a position, etc. RNs, LPNs, LMHTs and social workers will earn 3 contact hours for completing this course. ACHAs will earn 3 (A) hours.

$36.00

XNH 1315
Taking Care of Residents: A Customer Service
This self-paced course examines customer service skills necessary for providing residents with dignity and respect. RNs and LPNs will earn 5 contact hours for completing this course. ACHAs will earn 5 (RC) hours. Note: This course may not be taken with Making the Connection: Keys to Quality Customer Service in Health Care.

$60.00

XNH 1350
Heart Failure
This self-paced course outlines heart failure etiologies, pathophysiology, diagnosis and current treatment modalities. It emphasizes nursing implications and the need for interdisciplinary involvement to increase compliance. RNs, LPNs and LMHTs will earn 4 contact hours for completing this course. ACHAs will earn 4 (RC) hours.

$48.00

XNH 1375
Improving Quality of Life for Diabetic Clients
This self-paced course, available online and in booklet format, discusses concepts and approaches to effectively manage care in the diabetic client. RNs, LPNs and LMHTs will earn 3 contact hours for completing this course. ACHAs will earn 3 (RC) hours.

$36.00

XNH 1400
Drug Treatment of Mental Illness
This self-paced course, available online or in booklet format, reviews
classifications of the major mental illnesses and discusses the categories of psychotropic agents used to treat these disorders. RNs, LPNs, LMHTs, and social workers will earn 3 contact hours for completing this course. ACHAs will earn 3 (RC) hours.

$36.00
XNH 1405
Lactation Management Strategies: Birth to Weaning
Weaning This self-paced course, available online and in booklet format, discusses various aspects of early and established lactation, including prevention and treatment of common problems that may affect the nursing dyad. RNs and LPNs will earn 3 hours for completing this course.

$36.00
XNH 1415
Bouncing Back: Increasing Personal and Professional Resiliency
This self-paced course, available in one of JCCC Labs or in booklet format, focuses on the capacity of individuals to "bounce back," adapt and grow after reversals. RNs, LPNs, LMHTs and social workers will earn 6 contact hours for completing this course. ACHAs will earn 6 (A) hours. NOTE: This course may not be taken with Surviving: The Impact of the Stress, Anxiety, Tension Triangle, XNH 1416; Striving: Four Components of Resiliency, XNH 1417, or with Thriving: 10 Behaviors for Maximizing Resiliency, XNH 1418.

$72.00
XNH 1416
Surviving: Impact of the Stress, Anxiety, Tension
This self-paced course, available online and in booklet format, will acquaint you with the concept of resiliency and enable you to self-assess your capabilities for bouncing back. RNs, LPNs, LMHTs and social workers will earn 2 contact hours for completing this course. ACHAs will earn 2 (A) hours. Note: This course may not be taken with Bouncing Back.

$24.00
XNH 1417
Striving: Four Components of Resiliency
This self-paced course, available online and in booklet format, will discuss the roles of control, ownership, impact and longevity on resiliency. RNs, LPNs, and social workers will earn 2 contact hours for completing this course. ACHAs will earn 2 (A) hours. This course may not be taken with Bouncing Back.

$24.00
XNH 1418
Thriving: Ten Behaviors for Maximizing Resiliency
This self-paced course, available online and in booklet format, will introduce you to behaviors involved in increasing one's capacity to bounce back from adversity. RNs, LPNs, LMHTs and social workers will earn 2 contact hours for completing this course. ACHAs will earn 2 (A) hours. NOTE: This course may not be taken with Bouncing Back.

$24.00
XNH 1420
Difficult Decisions: Ethical Decision Making in Nursing Practice
This self-paced course, available online and in booklet format, explores ethical theories and principles that provide a basis for bioethics as well as ethics as it
applies to nursing practice. RNs, LPNs and LMHTs will earn 3 contact hours for completing this course. ACHAs will earn 3 (RC) hours.

$36.00

XNH 1425

**Difficult Decisions: Ethical Decision Making in Social**
This self-paced course, available online and in booklet format, explores ethical theories and principles that provide a basis for bioethics as it applies to social work practice. Social workers will earn 3 contact hours for completing this course.

$36.00

XNH 1430

**Bioterrorism: Responding to the Intentional Release of Biological Agents**
This self-paced course, available in one of the JCCC Labs or in booklet format, explores the terrorist potential, clinical course, treatment and prevention of biological agents. RNs, LPNs and LMHTs will earn 4 hours for completing this course. ACHAs will earn 2 (A) hours and 2 (RC) hours.

$48.00

XNH 1435

**Identifying and Responding to Fibromyalgia**
This self-paced course provides an overview of the clinical manifestations, diagnosis and treatment of the patient with Fibromyalgia. RNs and LPNs will earn 2 contact hours for completing this course.

$24.00

XNH 1440

**Three Score Years and Ten: Families and Elder Care**
This course focuses on understanding the aging process within the context of family life and will address the importance of families in eldercare. RNs, LPNs, LMHTs and social workers will earn 6 contact hours for completing this course. ACHAs will receive 6 (RC) hours.

$72.00

XNH 1500

**Help Your Patient Quit: A Guide to Smoking Cessation**
This self-paced course describes the effects of nicotine and other substances found in tobacco, discusses ways to motivate smokers to quit smoking and provides interventions to help patients achieve success. RNs, LPNs, LMHTs and social workers will earn 2 contact hours for completing this course.

$24.00

XNH 1510

**Hormone Replacement Therapy**
This self-paced course, available online and in booklet format, presents a comprehensive overview of menopause, including physiological changes, common symptoms, the long term effects of lowered estrogen states and the types of hormones available. RNs and LPNs will earn 2 contact hours for completing this course.

$24.00

XNH 1520

**Abnormal Uterine Bleeding**
This self-paced course, available online and in booklet format, presents a comprehensive overview of abnormal uterine bleeding. It includes pregnancy-related causes as well as age-specific etiologies for abnormal bleeding. RNs and LPNs will earn 4 contact hours for completing this course.

$48.00
XNH 1525

Hypertension: The Silent Killer
This self-paced course, available online and in booklet format, presents a comprehensive overview of the new guidelines for managing essential hypertension. It includes lifestyle modifications and antihypertensive drugs. RNs, LPNs and LMHTs will earn 4 contact hours for completing this course. ACHAs will earn 4 (RC) hours.

$48.00
XNH 1530

Depression in the Elderly
This self-paced course, available online and in booklet format, discusses the symptoms, diagnosis and treatment of depression in the elderly individual. RNs, LPNs, and social workers will earn 3 contact hours for completing this course. ACHAs will earn 3 (RC) hours. NOTE: This course may not be taken with Depression in the Geriatric Client.

$36.00
XNH 1535

Antibiotic Resistant Infections
Update your understanding of antibiotic resistant infections, including resources from the Center for Disease Control in Atlanta. RNs and LPS will earn 2 contact hours for completing this course.

$30.00
XNH 1540

Pre-existing Diabetes and Pregnancy
Update your understanding of diabetes and pregnancy, using the popular videotape "Steel Magnolias" in a case study approach. This course requires the purchase or rental of the videotape. RNs and LPNs will earn 4 contact hours for completing this course.

$48.00
XNH 1545

Substance Abuse: Alcoholism
Update your understanding of alcohol abuse, including definitions, physical symptoms, warning signs, action of alcohol, adverse effects and recovery. RNs, LPNs, LMHTs, social workers and counselors will earn 2 contact hours for completing this course.

$30.00
XNH 1550

Medical Terminology: A Word Association Approach
Learn medical terminology according to each body system. Multiple graphics, study tips and unusual facts make for a most enjoyable course.

$96.00
XNH 1555
Understanding Alzheimer's Disease
This self-paced course, available online and in booklet format, provides an overview of Alzheimer's Disease and the care required by patients. RNs, LPNs, LMHTs and social workers will earn 1 contact hour for completing this course. ACHAs will earn 1 (RC) hours.

$12.00
XNH 1560

Certificate in Gerontology
Enhance your knowledge and skills to work with older adults. The program is multi-disciplinary, provides a broad understanding of gerontology and addresses emerging trends. Participants will earn 30 contact hours.

$330.00
XNH 1565

Depression in the Geriatric Client: An Overview
This self-paced course, available online and in booklet format, presents an overview of depression in the geriatric client. RNs, LPNs, and social workers will earn 1 contact hour for completing this course. ACHAs will earn 1 (RC) hour. NOTE: This course may not be taken with Depression in the Elderly.

$12.00
XNH 1570

Ectopic Pregnancy
This self-paced course, offered online and in booklet format, presents an overview of ectopic pregnancy, including risk factors, diagnosis, and treatment approaches. RNs and LPNs will earn 1 contact hour for completing this course.

$12.00
XNH 1575

Protect Your Nursing Practice: Know the Law
This self-paced course, available online and in booklet format, provides a comprehensive overview of laws that significantly impact nursing practice. RNs and LPNs will earn 4 contact hours for completing this course. ACHAs will earn 4 (A) hours.

$48.00
XNH 1580

Managing Behavioral Problems in the Elderly
This self-paced course, offered online and in booklet format, discusses the management of a variety of behavior problems commonly associated with dementia, delirium and depression in the elderly individual. RNs, LPNs and LMHTs will earn 2.5 contact hours for completing this course. ACHAs will earn 2.5 (RC) hours.

$30.00
XNH 1630

Pregnancy Induced Hypertension
Gain an understanding of this serious condition of pregnancy, including its pathophysiology, classifications, symptoms and treatment. Participants will earn 3 contact hours.

$29.00
XNH 1645
Certificate in Spirituality, Health and Healing
Increase your ability to provide compassionate, effective care and meet your patient's spiritual needs by examining issues and trends affecting their care. Participants will earn 36 contact hours.

$396.00

XNH 1650
Certificate in Complementary and Alternative Medicine
Enhance your professional marketability by gaining a broad understanding of alternative health care options. Participants will earn 27 contact hours.

$297.00

XNH 1710
Writing Effective Grant Proposals
Learn to prepare grant proposals that get solid results for your favorite organization or charity. Over $200 billion annually is available for worthy causes and most people don't know how to prepare the application that will deliver the needed funding. This program does not have prior approval for continuing education (12 hours). You may submit for approval through the Kansas State Board of Nursing (KSBN) via an Individual Offering Approval (IOA) at www.ksbn.org/forms.

$79.00

XNH 1715
Advanced Grant Proposal Writing
In this course, an experienced grantwriter will show you how to research and write winning proposals that get funded. An introductory grant wiring course or equivalent experience is required to take this course. This program does not have prior approval for continuing nursing education (12 contact hours). You may submit for approval through the Kansas State Board of Nursing (KSBN) via an Individual Offering Approval (IOA) at www.ksbn.org/forms.

$79.00

XNH 1720
Ethical Considerations for the Health Care Professional
This course will provide health care professionals with tools for analyzing moral issues and problems, resolving conflicts and building understanding, and taking action to improve the care of patients. Participants will earn 30 contact hours.

$225.00

XNH 1725
Ethical Issues for Today's Nurse
This course will provide nursing professionals with an overview of ethical issues and a framework for addressing 30 contact hours. Your certificate will be issued by those issues. Participants will earn 30 contact hours.

$225.00

XNH 1730
The Therapeutic Relationship in Complementary Health Care
This course will provide nursing professionals with an understanding of the therapeutic relationship and how this relationship is central to self-healing. Participants will earn 30 contact hours.
A Nurse's Guide to Complementary Therapies
This course will provide an overview and brief history of the most common complementary therapies, such as acupuncture, traditional Chinese medicine, herbal medicine, homeopathy, massage, aromatherapy, biofeedback, hypnosis, reflexology, and therapeutic touch. Participants will earn 30 contact hours.

Perinatal Liability Issues
This course will provide nursing professionals with an understanding of the various types of law, specific elements of health care law, and the sources of liability for the nurse working in the perinatal setting. Participants will earn 30 contact hours.

Core Curriculum for Maternal-Infant Nursing
This course will prepare the maternal-infant nurse to take the national certification in maternal-newborn nursing. Participants will earn 30 contact hours.

Preceptor Training
Precepting is a deliberate pairing of a highly skilled individual with a less experienced person in order to help the less skilled person develop specific competencies. This course will provide the health care professional with factors to consider when developing preceptor training. Participants will earn 5 contact hours.

Diabetes in Pregnancy
This course will provide the health care professional with an overview of diabetes, the types of diabetes, and the metabolic changes that occur during diabetic pregnancies. Participants will earn 5 contact hours.

Prevention of Neonatal Group B Streptococcal Infection
The goal of this course is to provide health care professionals with an overview of the disease, and the latest recommendations by the American College of Obstetricians and Gynecologists (ACOG), the Centers for Disease Control (CDC), and the American Academy of Pediatrics (AAP). Participants will earn 3 contact hours.

Insulin Resistance: The Path to Metabolic Syndrome
This self-paced study program, available online and in booklet format, discusses Insulin Resistance (IR) detection and possible prevention of Metabolic Syndrome and Diabetes Type 2. RNs and LPNs will earn 4 contact hours for completing this
Certificate in End of Life Care
This program will provide you with the continuing professional education to help
you gain a broad understanding of this special area of care and stay current with
emerging trends. Participants will earn 26 contact hours.

Certified Medical Transcription
According to the current Occupational Outlook Handbook, Medical Transcription is
one of the 10 fastest growing occupations in the U.S. This 240 hour self-paced
online course provides students with knowledge of medical terminology and
proficiency in the transcription of medical records. Digital transcription equipment,
textbooks, and career development are included. This course is usually completed
within 6 months, but an extension can be applied for. A three installment payment
plan is available for this course.

Violence in the Family
KCNN-JCCC Independent Study

Spontaneous Abortion: Causes, Management and Nursing Care
KCNN-JCCC Independent Study

Premenstrual Syndrome: Fact Not Fiction
KCNN-JCCC Independent Study

Identifying and Responding to Substance Abuse
KCNN-JCCC Independent Study

Assessing Your Patient’s Fluid Status
KCNN-JCCC Independent Study

Successful Management of Endometriosis
KCNN-JCCC Independent Study
Assessment of Fetal Well-Being
KCNN-JCCC Independent Study

Identifying and Responding to Psychological Trauma
KCNN Independent Study

Hormone Replacement Therapy
KCNN-Independent Study

Diabetes Update
KCNN-Independent Study

Aging and Spirituality: Effective Nursing Intervention
KCNN-Independent Study

Immunization Update
KCNN-Independent Study

Helping Clients Change Behavior
KCNN-Independent Study

Contraception: Issues and Options
KCNN-Independent Study

Diabetes Update-Part II
KCNN-Independent Study
Managing Fibromyalgia  
KCNN-Independent Study

$12.00  
XNH 2016

Nurses as Educators: Principles of Adult Education in the Home Health Setting  
KCNN-Independent Study

$12.00  
XNH 2017

Drug Treatment of Mental Illness: Part 1 Treatment of  
KCNN-Independent Study

$12.00  
XNH 2018

Drug Treatment of Mental Illness: Part II-Treatment of  
KCNN-Independent Study

$12.00  
XNH 2019

Cyber Nursing on the World Wide Web  
KCNN-Independent Study

$12.00  
XNH 2020

Outpatient Management of Pediatric Asthma  
KCNN-Independent Study

$12.00  
XNH 2021

Women and Heart Disease  
KCNN-Independent Study

$12.00  
XNH 2023

Diabetes Part III  Prevention of Complications  
KCNN-Independent Study

$12.00  
XNH 2024

Drug Treatment of Mental Illness: Part III-Treatment of Anxiety and Sleep Disorders  
KCNN-Independent Study

$12.00  
XNH 2025

The Magic of Waldo, Bubbles and Neverland: Helping Children through
Painful Experiences
KCNN-Independent Study

$12.00
XNH 2026
Early Breastfeeding: Lactation Management Strategies
KCNN-Independent Study

$12.00
XNH 2027
The Write Stuff
KCNN-Independent Study

$12.00
XNH 2028
Female Adolescent Development
KCNN-Independent Study

$12.00
XNH 2029
Lyme Disease
KCNN-Independent Study

$12.00
XNH 2030
Cultural Diversity
KCNN-Independent Study

$12.00
XNH 2031
Express Yourself: Keys to Assertive Communication
KCNN-Independent Study

$12.00
XNH 2032
Art of Positive Conflict
A description is not available for this course.

$12.00
XNH 2033
ABCs of Viral Hepatitis
This self-paced course, available online and in booklet format, examines symptoms, transmission and treatment of Hepatitis A, B and C. RNs, LPNs and LMHTs will earn 3 contact hours for completing this course. ACHAs will earn 3 (RC) hours. NOTE: This course may not be taken with Hepatitis C, course XNH 4000.

$36.00
XNH 2034

Introduction to Managed Care
This independent study examines the basic difference among the following health plans: Indemnity, PPO, POS, EPO and HMO plans. RNs, LPNs and LMHTs will earn 3 contact hours for completing this course. Kansas ACHAs will earn 3 (A) contact hours.

$33.00

XNH 2035

Breathe Easy: Common Respiratory Complaints
This self-paced course, available online and in booklet format, uses a case-study approach to review three common respiratory complaints: dyspnea, sputum production and cough. RNs and LPNs will earn 4 contact hours for completing this course. ACHAs will earn 4 (RC) hours.

$48.00

XNH 4000

Hepatitis C: The Silent Epidemic
This self-paced course describes the transmission, symptoms, complications, treatment options and management strategies for Hepatitis C. RNs and LPNs will earn 1 contact hour for completing this course. ACHAs will earn 1 (RC) hour. NOTE: This course may not be taken with ABC's of Viral Hepatitis.

$12.00

XNH 4001

Art of Positive Conflict: Effective Conflict
Management Skills This self-paced course, available online and in booklet format, defines conflict, describes the stages of its development and explores factors that interfere with effective conflict resolution. RNs, LPNs, LMHTs, and social workers will earn 1 contact hour for completing this course. ACHAs will earn 1 (A) hour.

$12.00

XNH 8002

Veterinary Administrative Assistant Certificate
This 240 hour nationally recognized online course and training program prepares students for an exciting career as an administrative veterinary assistant. Students in the program learn about the care of animals as well as how to recognize signs of illness and disease. This online program also covers interpersonal communication, interaction with clients and their animals, as well as how to assist the veterinarian during examinations. Administrative duties, such as fee collection, banking, and accounts payable are emphasized, and the program contains basic information about pet insurance. A three part payment plan is available for this course. Textbooks are included.

$1,595.00

XNH 8003

Human Resources for Healthcare Providers Certificate
This 80 hour online course and training program provides a comprehensive human resource management foundation, grounded in practice, for those who intend to work, or are working, in healthcare settings. All of the modules in this online program instill a solid foundation in both human resources and healthcare administrative practices. A three part payment plan is available for this course. Textbooks are included.

$1,795.00
XNH 8004

Certified National Pharmaceutical Sales Representative
This 120 hour online course was developed in response to a rising need for entry-level certified pharmaceutical sales representatives (CNPR). The program is designed for individuals who want to gain entry into the pharmaceutical industry but who lack the required pharmacology and medical education. A three part payment plan is available for this course. Textbooks are included.

$1,395.00

XNH 8005

Administrative Dental Assistant Certificate (1 CR)
This 240 hour nationally recognized program teaches the essential administrative tasks for managing the business aspects of a dental practice and becoming an Administrative Dental Assistant. This online program includes instruction in dental terminology and anatomy, medical records management, accounts receivable and reimbursement management, insurance and patient billing, patient scheduling, and procedural and diagnostic coding. This certificate will prepare you for a new career working in a dental office. A three part payment plan is available for this course. Textbooks included.

$1,395.00

XNH 8023

Pharmacy Technician Certification Program
This self-paced online course teaches students pharmaceutical terminology, basic physiology as related to the pharmacology of medications, and medication dosage calculations. The course is self-paced and pairs students with an instructor for one-on-one assistance. There are seven online modules to complete prior to the 40 hour externship. Clinical rotations include 20 hours of retail and 20 hours of hospital experience. The course is usually completed within 6 months, but an extension can be applied for. A three installment payment plan is available for this course.

$1,395.00

XNH 8072

Hypertension 101
Despite all the progress that has been made in identifying the risks associated with hypertension and all the efforts to develop ways to control it (therapeutic or lifestyle modifications) the situation in the US leaves a lot of room for improvement as the following figures will attest. This course will help the healthcare professional health care providers to understand hypertension better and by so doing be in a position to give optimal care. RNs, LPNs, and LMHTs will earn 4 contact hours.

$48.00

XNH 8073

Cardiovascular Emergencies
Despite recent progress in the management of cardiovascular disorders generally, and cardiac arrhythmias in particular, sudden cardiac death remains both a problem for the practicing clinician and a major public health issue. In this course, you will re-acquaint you with the more common of these emergencies including chest pain, severe hypertension, dysrhythmia and cardiopulmonary arrest. You will review the health care providers approach to the disorder, treatment and recommended follow up where applicable. RNs, LPNs, and LMHTs will earn 4 contact hours.

$48.00
Health and Lifestyles (XPG)

XPG 1001
Back Safe Workout Program
Back pain affects 80% of adults at one time or another. Many workout programs are potentially damaging to one’s back. The Back Safe Workout is a research-based program that will help you get in shape, decrease your current back pain and avoid future problems.

$10.00

XPG 1003
Natural Solutions to Fibromyalgia
Fibromyalgia is a debilitating condition that can be managed effectively. Dr. Dale Scott will explain why standard medical treatments fail and will offer natural solutions that get results. Learn some pharmaceutical, nutritional, emotional and physical treatment options.

$10.00

XPG 1014
Stay Fit While You Sit
"Oh my aching back". Let Dr. Dale Scott remedy this oft heard complaint with an evening dedicated to discovering the anatomy of neck/back posture, how to make your work station back and neck friendly and finally learn a battery of self-help stretches and exercises to relieve and prevent musculoskeletal complaints.

$10.00

XPG 1020
Couples Massage
Learn to give and receive relaxing, therapeutic massage in this fun, one day class. You and your partner practice techniques following instructor demonstrations. No special or expensive massage equipment needed! Bring to class: foam pad or sleeping bag, two sheets, swimsuit, large bath towel and pillow. Lunch on your own. Class is limited to 10 people.

$39.00

XPG 1021
Natural Alternatives to Prescription Pain Medication
Pain management is a hot topic today. Pharmaceutical companies are pulling popular pain relief medications from the market. This class focuses on safe, non-prescription alternatives to pain medications. Attendees will learn side effects of common prescription pain medications as well as safe relief alternatives and therapies.

$10.00

XPG 1031
Peak Performance
Understand and learn winning techniques that help eliminate fatigue, improve your body’s performance and reduce the risk of injury.

$10.00

XPG 5003
Luscious, Low-Fat, Lightning-Quick Meals
Uncover the secrets of making lowered-fat recipes taste terrific. Learn how to get in and out of the kitchen quicker, and explore a registered dietitian’s tricks for
encouraging reluctant family members to eat more healthfully.

$82.00
XPG 5005
Introduction to Natural Health and Healing
Learn how to promote wellness, balance and health in all aspects of your daily life. This course will give you a basic understanding of the field of natural health.

$82.00

Home Ownership (XPK)

XPK 1005
Home Inspections: A Buyer's Best Protection
All homes have problems of some sort. The critical question is: how serious are those problems? You'll learn common "red flags" in a house's structural and mechanical systems and components, many of which are highly visible to the average person if you simply know what to look for and where to look. You'll also learn how to get further help or negotiate repairs with the seller, if a defect is significant.

$12.00
XPK 1006
Mold and Moisture in the Home
Homeowners have been exposed to unwanted moisture intrusion and mold from many sources for years. In the past homeowners simply repaired the leak, washed off the mold and went on with their life. In the past two years, new types of mold have proved to pose a serious health and financial hazard to many people. This seminar will focus on what a homeowner needs to know about mold to protect themselves and their family from this environmental and legal hazard.

$12.00
XPK 1008
Is Reverse Mortgage Right for You?
Learn about reverse mortgages; who can qualify, how they work, is a reverse mortgage a good idea for you.

$12.00
XPK 1011
Community Homebuyers Program (Spanish)
You may be able to afford more home than you've thought possible. This four-hour course will help you decide, as it addresses the basic steps involved in achieving home ownership. You will acquire essential information on budgeting, credit reporting, qualifying for the purchase, home inspection and maintenance. Participation in this program is a prerequisite for qualifying for several government-sponsored and conventional loan programs. The class includes information on a new public Web site on financing options and programs available to consumers in the Kansas City Metro Area. Note: The course is co-sponsored by the Kansas City Regional Association of Realtors and will be taught in Spanish. The $10 registration fee entitles you to one instructional packet and one certificate of completion.

$10.00
XPK 1012
Community Homebuyers Program (American Sign Language)
You may be able to afford more home than you've thought possible. This four-hour course will help you decide, as it addresses the basic steps involved in achieving home ownership. You will acquire essential information on budgeting, credit reporting, qualifying for the purchase, home inspection and maintenance. Participation in this program is a prerequisite for qualifying for several government-sponsored and conventional loan programs. The class includes information on a new public Web site on financing options and programs available to consumers in the Kansas City metro area. Note: The course is co-sponsored by the Kansas City Regional Association of Realtors and will be taught in American Sign Language. The $10 registration fee entitles you to one instructional packet and one certificate of completion.

$10.00
XPK 1015

Homebuilding 101: Dealing With New Construction Defects
With the current lowered interest rates and increased building activity, there is a serious shortage of competent tradesmen to build new homes. Come learn what to look for when buying or building a new home and how to correct the most common defects.

$12.00
XPK 1020

Community Homebuyers Program
You may be able to afford more home than you've thought possible. This four-hour course will help you decide, as it addresses the basic steps involved in achieving home ownership. You will acquire essential information on budgeting, credit reporting, qualifying for the purchase, home inspection and maintenance. Participation in this program is a prerequisite for qualifying for several government-sponsored and conventional loan programs. The class includes information on a new public Web site on financing options and programs available to consumers in the Kansas City metro area. Note: The course is co-sponsored by the Kansas City Regional Association of Realtors. The $10 registration fee entitles you to one instructional packet and one certificate of completion.

$10.00
XPK 1045

How to Save $$$$ Buying a Home
This class will inform you about the 13 steps you need to know to negotiate the lowest possible price on the next home you buy. Discover what the lenders and realtors don't usually discuss, and learn how to avoid those costly mistakes.

$12.00
XPK 1155

Patents, Trademarks and Copyrights
This class will give you a basic understanding of what is patentable, what can be trademarked, and when to obtain a copyright. A patent attorney will instruct the class.

$5.00

House and Garden (XPI)
XPI 1026

Plants for Problem Locations
Many of us have struggled with areas that are periodically sodden, too windy, too steep, too rocky, get too much of the wrong kind of traffic, et cetera. Stop trying to "fix" the site, and instead find plants that like those kinds of locations! (For shade
problems, see "Made in the Shade Gardens" class.

$12.00
XPI 1200

Herb Gardening for the Novice
This class provides a full sensory experience: a full slide program of different herbs and herb gardens. We will explore the differences between annual and perennial herbs and discuss seed starting. You will also get to smell and taste herbs in a few recipes, receive pages of handouts with recipes and uses. Learn how to make herbal oils, vinegars and more. (Class is devoted to culinary, not medicinal herbs.) For novice and seasoned gardeners alike.

$12.00
XPI 1205

Cottage Garden in Suburbia
Cottage-type gardens replete with an abundance of old-fashioned annuals and perennials are enjoying a resurgence in popularity. Find out how you can create one of these gems for your own sunny yard, and view a slide show of plants suitable for our climate. This class is for novice and seasoned gardeners alike. Fee includes handouts and bibliography. Note: landscaping consultation not provided.

$12.00
XPI 1210

Made-in-the-Shade Gardening
Shade gardeners don't worry about sunburn, tomato wilt or wind-whipped plants. But what do you grow in the shade besides impatiens and hostas? What can you do about (eeuw) slugs and snails? Learn about flowering shade plants beyond impatiens and hostas. Class includes a slide program of three seasons of flowering plants and handout. For novice and seasoned gardeners alike.

$12.00
XPI 1215

Midwestern Rock Gardens
Even experienced gardeners often shy away from rock gardens because many of the traditional alpine plants are unfamiliar or will not grow in humid weather. However, anyone can have a rock garden. They are neither hard to make nor hard to stock with plants that like Kansas City weather. Class includes handouts, slide program showing suitable plants, rock gardens and directions on how to create your own. For novice and seasoned gardeners alike.

$12.00
XPI 1225

The "Dirt" on Composting
Composting can be as easy or as enthusiastic as you want. We will discuss a heap of ways to add inches of nutritious, soil-loosening compost to your beds. Dig into the details of how to trouble-shoot your pile and what to do about all those leaves! Class includes a slide program and handout. For novice and seasoned gardeners alike.

$12.00
XPI 1240

Xeriscaping: Cottage Gardens on the Prairie
Xeriscaping doesn't mean "zero-landscaping", but rather landscaping that holds up better in years of drought. Learn how our native wildflowers and other tough,
well-adapted flowers and ornamental grasses will allow you to create an old-fashioned style "cottage garden" for the sunny areas of your yard. Class includes a slide program and handout. For novice and seasoned gardeners alike.

$12.00
XPI 1245

How (Not!) to Ruin Your Garden
Is mint taking over your herb bed? Do your flowers have their faces in the mud after a rainstorm? Are your front door and windows disappearing behind junipers? Did your tulips end up a Straggling Thin Line of Soldiers? A tongue-in-cheek approach to identifying common gardening mistakes, how to remedy old problems, and prevent future ones. Class includes a slide program and handouts. For novice and seasoned gardeners alike.

$12.00
XPI 1250

Butterfly Gardening
Join the growing number of people who enjoy this exciting hobby that combines the best of gardening and butterfly watching. This gardening class includes a slide program of butterflies, the flowers that attract them and gardens. The handout has descriptions of suitable plants for local butterflies. This class is for novice and seasoned gardeners alike.

$12.00
XPI 1265

Perfect Perennials and Awesome Annuals
Perennials are sometimes advertised as "just plant and that's all"; well, not quite. What we have here is a plan for pinching, pruning and dividing to keep your flowers blooming longer and plants tidier and healthier. Class includes a slide program illustrating different techniques, and a handout detailing how you can keep your garden "in the pink" with a minimum of fuss. For novice and seasoned gardeners alike.

$12.00
XPI 1280

Flower Bed Design
This visually-oriented program on design concepts will use the first class to introduce you to the uses of color, visual texture, foliage effects, plus address the quantity of materials needed and using hardscape elements in your flower garden. The second session allows you to then put these concepts into practice in instructor-guided and small-group work. Classes include a slide program and handout. For novice and seasoned gardeners alike.

$17.00
XPI 5000

Growing Plants for Fun and Profit
Turn your love of plants into an enjoyable and profitable home business. Learn how to grow and market plants on a small scale without major capital investment, select and produce plants appropriate to your climate zone, and how to produce quality material.

$82.00

Insurance (XNI)
XNI 1030
INS 21 - Property and Liability Insurance Principles
This course prepares you to take the INS 21 exam which covers the following topics: What insurance is, who provides insurance, how insurance is regulated, measuring the financial performance of insurers, marketing, underwriting, claims, contracts, property loss exposures, liability loss exposures, and risk management.

$189.00
XNI 1040

INS 22 - Personal Insurance
This course prepare you to take the INS 22 exam which covers the following topics: Personal auto policy, homeowners insurance, other residential insurance, personal loss exposures and financial planning, life insurance, and health and disability insurance.

$189.00
XNI 1050

INS 23 - Commercial Insurance
This exam covers the following topics: Commercial property insurance, business income, commercial crime and equipment breakdown, commercial general liability, commercial automobile, workers’ compensation and employers’ liability, and miscellaneous coverages.

$189.00
XNI 1100

AIC 33 - The Claims Environment
You will learn how the claim representative’s role is simultaneously determined by policyholders and other customers, the insurance policy, the insurance company and its management and the law.

$145.00
XNI 1115

AIC 34 - Workers Comp and Managing Bodily Injury Claims
This course will cover the important factors of the workers’ compensation system to workers and to employers as well as the central role of claim settlements in that system. You will learn to analyze comprehensibility and benefits in given situations, evaluate the medical aspects of given injury claims and appreciate the importance of medical knowledge and education.

$145.00
XNI 1120

AIC 35 - Property Loss Adjusting
You will learn about all the significant aspects of property loss claims, other than auto. You will understand the important role that insurance policy language plays in determining the rights and duties of policyholders and insurers and how it shapes and guides the investigation and adjustment of first-party losses.

$145.00
XNI 1125

AIC 36 Liability Claims Adjusting
The legal liability in given situations by organizing an appropriate investigation and how to apply the appropriate law will be covered. You will be able to evaluate damages for bodily injury, claims and effectively settle a third-party claim.

$145.00
XNI 1145
ARe 141 Principles of Reinsurance
A description is not available for this course.

$125.00

XNI 1150
ARe 142 Reinsurance Practices
A description is not available for this course.

$175.00

XNI 1151
ARe 144 - Reinsurance Principles and Practices
This course prepares you to take the ARe 144 exam which covers the following topics: Introduction to Reinsurance, reinsurance program design, reinsurance placement process, common reinsurance treaty clauses, quota share treaties, surplus share treaties, casualty excess of loss treaties, catastrophe reinsurance, audits, and regulations.

$189.00

XNI 1152
ARe143 - Primary Insurance Coverages
This exam covers the following topics: Overview of personal insurance, personal auto, homeowners insurance, miscellaneous personal insurance coverages, commercial property insurance, business income insurance, inland and ocean marine, commercial general liability, commercial auto, and workers' compensation and employers' liability insurance.

$189.00

XNI 1300
ARM 54 - Risk Assessment
This exam covers the following topics: Risk management programs, the risk management process, legal foundations of liability loss exposures, assessing property, liability, personnel and net income loss exposures, management liability and corporate governance, forecasting, and cash flow analysis.

$189.00

XNI 1301
ARM 56 Essentials of Risk Financing
The following topics will be discussed extensively in this course: insurance as a risk financing technique, excess & umbrella liability, reinsurance & risk financing, captives, self-insurance, retrospectively rate finite & integrated risk insurance plans and capital market products. The required text may be ordered by logging on to www.aicpcu.org.

$145.00

XNI 1305
ARM 55 - Risk Control
This exam covers the following topics: Controlling property, personnel, liability, and net income loss exposures, intellectual property loss exposures, criminal loss exposures, disaster recovery for property loss exposures, understanding claim administration, fleet operations loss exposures, environmental loss exposures, understanding system safety, and motivating and monitoring risk control activities.
AAI 82 - Multiple-Lines Insurance Production
This exam covers the following topics: Commercial general liability insurance, commercial automobile, garage and motor carrier, commercial crime, specialty property, excess and umbrella and surety bonds.

AAI 83 - Agency Operations and Sales Management
This course prepares you to take the AAI 83 exam which covers the following topics: Agency formation/environment, management, production plans, producer-insurer relations, agency image, growth/customer communications, market segmentation, target marketing, agency IT, financial management, and legal/ethical responsibilities.

CPCU 510 - Foundations of Risk Management, Insurance & Professionalism
This exam covers the following topics: Code of ethics, risk and related concepts, evaluating and managing risk, risk management, how insurance works as a business, risk financing alternatives, fundamental insurance assumptions, insurance contracts, insurable interests, reading a policy, common policy provisions, insured events, amounts payable, and external factors affecting insurance contracts.

CPCU 540 - Accounting and Financial Analysis for Risk Management and Insurance Professionals
This course prepares you to take the CPCU 540 exam which covers the following topics: Corporate finance, financial statements and taxes, time value of money, discounted cash flow valuation, capital investment decisions, project analysis and evaluation, capital market history, risk metrics, financial leverage, cash and liquidity management, and mergers and acquisitions.

Insurance Ethics - 1 Ethics
In this one-hour session you will work with the instructor to secure a consensus on the meaning of the term "ethical behavior." You will then discuss examples of company, client and agent/broker behavior for evaluation from the standpoint of the consensus meaning. CECs: 1 Ethics, Kansas and Missouri Insurance Departments.

Estate Planning - 3 L/H
You will look at strategies involved in estate planning for single, married and nontraditional households. You will review historical perspectives and traditional approaches to planning for the disposition of an estate, as well as the growing popularity of the living trust. This course emphasizes comprehensive estate planning using a team of advisers while offering case studies that illustrate the pitfalls of inadequate or no planning. CECs: 3 L/H - Kansas and Missouri Insurance Departments.
$59.00
XNI 3015
Estate Planning II - 3 L/H
You'll examine the need for planning to minimize the impact of federal estate tax and state inheritance tax on the larger estate. You'll explore planning techniques such as irrevocable trusts and planned giving programs, as well as estate and business planning for the small- to medium-sized business owner through irrevocable life insurance trusts, charitable remainder trusts, buy/sell agreements and family limited partnerships. You are encouraged to complete Estate Planning I before enrolling in Estate Planning II. CECs: 3L/H Kansas Insurance Department.

$45.00
XNI 5008
NFIP: The Elevation Certification
Filling out the NFIP Elevation Certificate (EC) has not always been easy, judging from comments the Federal Insurance Administration (FIA) has received about the EC's format and the relevance of the data collected on it. However, the process of identifying and rating flood risks just got a little easier. Attend this course to learn more about the new Elevation Certificate. Use of the new certificate will become mandatory on January 1, 2000, if the certification date is on or after that date. No fee for this class.

$0.00
XNI 6025
NFIP 2006-2008
You will be given an overview of the National Flood Insurance Program and the NFIP's Elevation Certificate Program changes. The federal government has created a new Elevation Certificate and its use became mandatory in October 2000. This training provides a review by comparing each section with the correlating instructions and carefully analyzes the process of this highly technical document. Several hands-on exercises will be presented to ensure that you have a complete comprehension of the Elevation Certificate.

$30.00
XNI 6027
CPCU 520 - Insurance Operations, Regulation and Statutory Accounting
This course prepares you to take the CPCU 520 exam which covers the following topics: insurance operations, regulations, marketing, underwriting property and liability insurance, ratemaking, property and liability claim adjusting, reinsurance, insurer financial statements and management, and insurer business strategy and global operations.

$189.00
XNI 6028
CPCU 530 - The Legal Environment of Insurance
This exam covers the following topics: U.S. law and regulations, general contract law, contract formation, agreement, legal capacity, consideration, legal purpose, interpretation and obligations, insurance contract law, commercial law, property law, tort law, negligence, products liability, special liability, employment law, and the international legal environment of insurance.

$189.00
XNI 6029
CPCU 551 - Commercial Property Risk Management and Insurance
This exam covers the following topics: Property loss exposures, building and
personal property coverage, cause of loss forms, flood and specialty forms, business income, inland marine and ocean cargo, crime, equipment breakdown, business owners and farm owners, and surety bonds.

$189.00
XNI 6030
CPCU 552 - Commercial Liability Risk Management and Insurance
This course prepares you to take the CPCU 552 exam which covers the following topics: Liability loss exposures, liability risk control, business auto insurance, garage and motor carrier insurance, workers compensation and employers' liability loss exposures, management and professional liability loss exposures and insurance, environmental and aviation loss exposures and insurance, excess and umbrella liability insurance, and advanced risk financing techniques.

$189.00
XNI 6031
CPCU 553 Personal Risk Management, Insurance and Financial Planning
You will learn about the survey of personal risk management, insurance and financial planning, which includes auto insurance, personal auto policy, homeowners insurance, residential insurance, personal financial planning, life, health and disability insurance, investment planning, planning for retirement and estate planning.

$175.00
XNI 6032
CPCU 555 Personal Risk Management and Property Liability Insurance
You will learn about personal risk and property liability insurance which includes personal risk management, homeowners endorsements & variations, personal auto, recreational vehicles, developing personal insurance products, underwriting profitability, pricing, reunderwriting personal portfolios, and gaining efficiencies in personal insurance operations. This course prepares you for the national CPCU test.

$175.00
XNI 6033
CPCU 556 Personal Financial Planning
You will learn about life insurance and social security insurance including health, disability and long-term insurance, basic investment principles, equity and fixed-income investments, mutual funds, asset allocation, income tax planning, planning for retirement and estate planning. The course prepares you for the national CPCU test.

$175.00
XNI 6034
CPCU 557 Commercial Risk Management Insurance & Financial Planning
In this survey course of commercial risk management and insurance you will learn about commercial property, business income, commercial crime and equipment breakdown insurance, inland and ocean marine commercial general liability, commercial auto, business owners and farm workers compensation and employers liability and risk financing. This course prepares you for the national CPCU exam.

$175.00
XNI 6035
CPCU 560 - Financial Services Institutions
In this course you will learn about different financial markets, federal reserve, money markets, bond markets, stock markets, derivative securities, banks finance companies, insurance companies, securities firms and investments banks regulation of depository institutions. Mutual funds, pension funds and risks incurred by financial institutions. This course prepares you for the national CPCU 560 test.

$175.00

**Intensive English (XGI)**

**XGI 1020**

**American Idioms and Slang**

Prerequisite: Appropriate placement. 3 HRS. Students are introduced to a broad selection of common idioms used in a wide variety of contexts - from love to last wishes. Students will learn to recognize, understand, and use idioms and slang appropriately through various listening, reading, speaking, and writing activities. Students will also become familiar with resources that help continue building knowledge of idioms and slang.

$189.00

**XGI 1030**

**Learn & Test-Taking Strategies**

A description is not available for this course.

$250.00

**XGI 1043**

**English Pronunciation Improvement Class**

Do you think your pronunciation needs improvement? Are you worried that your accent keeps people from understanding you when you speak? If so, then this class is for you! Learn various pronunciation skills that will help you to express meaning and feel confident in many different types of spoken communication. This class will give you strategies, learning tools and practice while you focus on the important English pronunciation issues, such as rhythm, stress and intonation.

$100.00

**XGI 1092**

**Exploring the Plains**

Students discover what makes the Midwest and Kansas such a great place to live and learn both from a historical and modern-day perspective. The class will visit local, area attractions to reinforce the themes and topics studied. Themes and topics include food, the early explorers, and the cowboys and Native Americans.

$192.00

**XGI 1094**

**JCCC Information Systems and Keyboarding Improvement**

Practice keyboarding, email and Internet skills necessary for academic success.

$95.00

**XGI 1110**

**Oral Communication 1110**

Prerequisite: Appropriate placement test score. 3 HRS. Students develop listening and speaking skills and strategies necessary for critical thinking, listening to lectures, participating in discussions, giving presentations, taking notes and working in study groups with an emphasis on clarification through rewording and
asking questions.

**XGI 1112**

**Pronunciation 1112**
Prerequisite: Appropriate placement test score. 3 HRS. This course provides the students with knowledge, strategies, tools, and opportunities to improve conversational and academic North American English pronunciation and sounds both individually and in continuous speech. Students will learn and practice to express meaning and feel confident in different oral communication situations. The goal is for the students to understand and to be understandable to a native speaker of North American English.

**XGI 1120**

**Oral Communication 1120**
Prerequisite: Appropriate placement test score or XGI 1110. 3 HRS. Students continue to develop listening and speaking skills and strategies necessary for critical thinking, listening to lectures, participating in discussions, giving presentations, taking notes and working in study groups with an emphasis on clarification through rewording and asking questions.

**XGI 1122**

**Pronunciation 1122**
Prerequisite: Appropriate placement test score or XGI 1112. 3 HRS. This course provides the students with knowledge of academic pronunciation and prepares such students for future participation in U.S. based college and university classes. Students will learn and practice high level strategies and activities which will develop oral and aural proficiency improving the student's ability to understand conversational and academic North American English and to be able to produce English sounds individually and within the context of continuous speech at an advanced level. The goal is for the students to understand and to be understandable to a native speaker of North American English.

**XGI 1130**

**Oral Communication 1130**
Prerequisite: Appropriate placement test score or XGI 1120. 3 HRS. Students develop communication, organization, and pronunciation skills necessary for effective academic presentation and discussion with an introduction to lecture note taking.

**XGI 1132**

**Pronunciation 1132**
Prerequisite: Appropriate placement test score or XGI 1122. 3 HRS. This course provides the student with knowledge of academic pronunciation and prepares such students for future participation in U.S. based college and university classes. Students will learn and practice high level strategies and activities which will develop oral and aural proficiency improving the student's ability to understand conversational and academic North American English and to be able to produce English sounds individually and within the context of continuous speech at an advanced level. The goal is for the students to understand and to be understandable to a native speaker of North American English.

**XGI 1140**

**Oral Communication 1140**
Prerequisite: Appropriate placement test score or XGI 1130. 3 HRS. This course is designed to focus on developing practical study skills to enhance academic and life skills success. Skills taught in this class are time management, concentration, listening, note-taking, goal setting, exam preparation and testing, use of library resources, and personal issues that face many university students.
XGI 1142

Pronunciation 1142
Prerequisite: Appropriate placement test score or XGI 1132. 3 HRS. This course provides the student with knowledge of academic pronunciation and prepares such students for future participation in U.S. based college and university classes by providing tools, strategies, and techniques to speak clearly and accurately. Students will learn and practice high-level strategies and activities which will develop oral and aural proficiency improving the student's ability to understand conversational and academic North American English and to be able to produce English sounds individually and within the context of continuous speech at an advanced level. The goal is for the students to understand and to be understandable to a native speaker of North American English.

XGI 1210

Structure 1210
Prerequisite: Appropriate placement test score. 3 HRS. This course is designed to provide students numerous opportunities for practice in all grammar areas that are important for the beginning grammar student to become a better writer of English. A variety of exercises and activities, both written and oral, enhance this practice with guided study in the classroom and independent work outside the classroom. Weekly computer labs provide further self-paced practice, both during and outside of class time. The goal of this course is to set a foundation for bridging the gap between the study of English as a Second Language and the use of academic English in the college classroom setting.

XGI 1220

Structure 1220
Prerequisite: Appropriate placement test score or XGI 1210. 3 HRS. This course is designed to provide students sufficient practice in all the grammar structures that are important for the intermediate grammar student to become a better writer of English. A variety of exercises, both oral and written, supplement this practice with guided study in the classroom and self-study outside the classroom. Weekly computer labs give further self-paced practice, both during and outside of class time. The goal of this course is to begin bridging the gap between the study of English as a Second Language and the use of academic English in the college classroom setting.

XGI 1230

Structure 1230
Prerequisite: Appropriate placement test score or XGI 1220. 3 HRS. This course is designed to provide students intensive practice using the target grammar structures that are important for the high-intermediate grammar student to become a better academic writer of English. Students will focus on the form, meaning and use of those grammar structures most pertinent to high-intermediate-level rhetorical styles and writing requirements, through extensive and diverse practice exercises, both oral and written. This practice is provided by means of guided study in the classroom, self-study outside the classroom, and weekly computer labs for further self-paced practice, both during and outside of class time. The goal of this course is to further reduce the gap between the study of ESL and the use of academic English in the college classroom setting.

XGI 1240

Structure & Writing 1240
Prerequisite: Appropriate placement test score or XGI 1230. 6 HRS. Students develop the ability to comprehend and interpret authentic college-level writing assignments across the disciplines and to respond to them by applying appropriate writing strategies (i.e., comprehend and select material, plan, draft, and revise their written text).
XGI 1250
Structure Workshop 1250
Prerequisite: Appropriate placement test score or XGI 1210. 3 HRS. Study, practice, and use the various structures of English to become a better speaker and writer.

$189.00

XGI 1310
Writing 1310
Prerequisite: Appropriate placement test score. 3 HRS. Students review basic English sentences structures and develop the ability to write accurate, fluent, multiple sentences about basic academic topics with an emphasis on the use of specific detail and sentence combining.

XGI 1320
Writing 1320
Prerequisite: Appropriate placement test score or XGI 1310. 3 HRS. Students continue to develop academic writing with an emphasis on writing level-appropriate academic paragraphs in the traditional modes: observing, describing, defining, comparing and/or contrasting, explaining processes and/or classifying, and explaining cause(s) and/or effect(s).

XGI 1330
Writing 1330
Prerequisite: Appropriate placement test score or XGI 1320. 3 HRS. Students develop the ability to compose (i.e., comprehend, select, plan, and draft) and produce lengthier texts on diverse general education academic topics by applying appropriate writing strategies.

XGI 1410
Reading 1410
Prerequisite: Appropriate placement test score. 3 HRS. Students develop the ability to read texts on familiar, basic academic topics with an emphasis on application of critical reading skills.

XGI 1411
Vocabulary 1411
Prerequisite: Appropriate placement test score. 3 HRS. Students expand vocabulary and develop vocabulary skills.

XGI 1420
Reading 1420
Prerequisite: Appropriate placement test score or XGI 1410. 3 HRS. Students continue to develop academic reading abilities including texts on contemporary academic and literary topics with an emphasis on extensive reading and the enhancement of critical reading skills.

XGI 1421
Vocabulary 1421
Prerequisite: Appropriate placement test score or XGI 1411. 3 HRS. Students continue expanding vocabulary and developing vocabulary skills.

XGI 1430
Reading 1430
Prerequisite: Appropriate placement test score or XGI 1420. 3 HRS. Students continue to develop academic reading abilities including texts on contemporary academic and literary topics with an emphasis on extensive reading and the enhancement of critical reading skills.

XGI 1431
Short Stories 1431
Prerequisite: Appropriate placement test score or XGI 1420. 3 HRS. Students develop academic reading abilities by being introduced to the works of famous American authors, while building reading, vocabulary, writing, and discussion skills and analyzing and understanding literary terms and techniques. The texts feature original and adaptations of classic stories that progress in difficulty and which highlight important people and periods in American cultural, social, and political history.

XGI 1440
Reading 1440
Prerequisite: Appropriate placement test score or XGI 1430. 3 HRS. Students develop academic reading abilities including texts on contemporary literary and academic topics with an emphasis on extensive reading and the enhancement of critical reading skills. Students develop the ability to understand and use academically appropriate new words.

Law Enforcement (XNP)

XNP 0140
Basic Leadership/Johnson County Sheriff’s Department
Upon successful completion of this course, the student should be able to define the supervisor's role within a company and identify the skills necessary to successfully fulfill that role. In addition, the student should be able to determine the supervisor's role in supervising employees on an individual basis and as a group. The student should also be able to apply the principles of supervision in simulated work situations. (10 sessions)

$121.00

XNP 5000
Pediatric Advanced Life Support & Trauma Course
Instructor: Barnett

$210.00

XNP 5002
Law, Leadership, and Liability for Law Enforcement
Emphasis will be placed on the practical realities of day-to-day police work, merging the dynamics of 21st century policing with the need for protection of constitutional and human rights. The program orientation will be positive, proactive, and practical.

$0.00

XNP 5010
EMT Recertification
A description is not available for this course.

$99.00
XNP 5011
EMT Intermediate Update
This course will provide information regarding new trends and equipment in intravenous therapy. There will be time to practice your skills as well. Completing this course will meet your recertification requirements for EMT-I by the Kansas Board of EMS.

$29.00

XNP 5012
EMT Defibrillator Update
This course will provide information and practice session for EMT's to update their knowledge and skills in defibrillator therapy. Completing this course will meet your recertification requirements for EMT-D by the Kansas Board of EMS.

$29.00

XNP 5013
EMT "B" Refresher
(4 sessions)

XNP 5014
EMT-P Refresher
A description is not available for this course.

$250.00

XNP 5020
Emergency Care: Are We Doing It Right?
Paul Pepe, one of the country's leading physician researchers in emergency medicine, will lead this day-long seminar on evolving issues in resuscitation and emergency medicine. Seminar topics will include directions in the early management of post-traumatic hemorrhage, improved criteria for both termination and waiver of resuscitation efforts, ACLS and new directions in the pre-hospital management of severe trauma.

$59.00

XNP 5030
Internal Affairs Personnel Management
Instructor: Southeastern Center

$295.00

XNP 5040
Basic Crime Scene Processing
Instructor: Chapin

$100.00

XNP 5050
Administration and Supervision of Field Training Officer
Instructor: Kaminsky

$350.00

XNP 5060
Sexual Harassment
Instructor: Brewer

$65.00
XNP 5070
Overview of the Internet
A description is not available for this course.

$0.00
XNP 5080
BLS INStructor Reaffirmation
A description is not available for this course.

$50.00
XNP 5090
Law Enforcement 40-hour Block Training
A description is not available for this course.

$200.00
XNP 5100
Ethics and Integrity in Law Enforcement
A description is not available for this course.

$99.00
XNP 5110
Identifying Lies & Disguise
A description is not available for this course.

$450.00
XNP 5120
W-Z Seminar on the Reid Method of Criminal Interviews & Interrogation
The purpose of this course is to crystallize the experience of the trained investigator and to focus on those aspects of interview and interrogation which will prove most useful in the investigative process. For the new investigator, it will form the basis for growth by providing a structured format that can be used while the investigator gains experience. The approach of the course is one of practical application rather than theory. (3 sessions)

$499.00
XNP 5121
Reid's Adv Interview/Interrog
A description is not available for this course.

XNP 5125
Clear, Concise Report Writing
A description is not available for this course.

$200.00
XNP 5130
Principles for Effective Drug Enforcement
A description is not available for this course.

$195.00
XNP 5131

Drugs and Impaired Driving
A description is not available for this course.

$57.00
XNP 5140

Physical Fitness Standards & American Disabilities Act
A description is not available for this course.

$195.00
XNP 5160

Instructor Development
A description is not available for this course.

$0.00
XNP 5170

Accident Investigation Course
Instructor: Plumly

$600.00
XNP 5171

Death Investigations
A description is not available for this course.

$29.00
XNP 5179

Field Training for CTO
Following requests from dispatchers and communication center supervisors for a course of our own, we offer this three and a half-day program based on the widely used "San Jose " model to assist you in creating, re-designing and implementing a CTO program in your agency. Topics covered will include key elements for success, legal and ethical issues, the evaluation process, the role of the supervisor, and more. Interactive video practice sessions will be included.

$429.00
XNP 5180

Basic Field Training Officer Course
This five day program is designed to prepare newly selected FTOs and/or program supervisors for their respective roles. Additionally, the course incorporates various components of program development and operation. This information is particularly useful for agencies undertaking the initial program or agencies wishing to "measure" an existing model against known standards.

$519.00
XNP 5181

Field Train Officer/Supv Adv
$395.00  
XNP 5182  
**Coaching Within an Evaluation Program**  
A description is not available for this course.

$350.00  
XNP 5190  
**Supervision of Police Personnel**  
Prepare your first-line supervisors with the training they need to fulfill their leadership responsibilities. This two-week, 80 hour program assists supervisory personnel in making the transition from office to supervisor. The role of law enforcement supervisor is a challenging one, requiring the ability to maintain a balance between the objectives and responsibilities of workers and upper-level management, and the ability to manage the ever-increasing volume of job-related data. Topics covered include responsibilities of a staff officer, ethics, professionalism, community image, communication, motivational principles, supervisory challenge, diversity, disciplinary process, complaint investigations, planning and decision making, leadership, managing problem employee, employee performance appraisal, the personal profile system (DiSC) and case studies.

$995.00  
XNP 5200  
**School Resource Officer Training**  
A description is not available for this course.

$400.00  
XNP 5201  
**Sro/Solutions/Violence**  
A description is not available for this course.

$340.00  
XNP 5300  
**Developing Your Leadership Style**  
A description is not available for this course.

$90.00  
XNP 5301  
**Knife Defense**  
A description is not available for this course.

$40.00  
XNP 5302  
**Search and Seizure**  
A description is not available for this course.
$50.00
XNP 5304
**Gangs**
A description is not available for this course.

$25.00
XNP 5305
**Hand Gun Retention**
A description is not available for this course.

$25.00
XNP 5307
**Law Enforcement Internet**
A description is not available for this course.

$45.00
XNP 5308
**Pract. Kines. Rdside & Fld Int**
This course teaches multi-phase behavioral analysis and tactical interrogation methods using advanced kinesic interview and interrogation theories. It is designed to provide the street/road patrol interdiction officer with knowledge and understanding of truthful and deceptive verbal, nonverbal, and emotional behaviors exhibited by subjects during vehicle stops or when taking incident reports. The course discusses practical kinesic principles, verbal cues, stress response states, body language cues and confession behaviors.

$395.00
XNP 5310
**Weapons of Mass Destruction and Their Biological Threat**
A description is not available for this course.

$50.00
XNP 5311
**Crime Scene Refresher**
A description is not available for this course.

$25.00
XNP 5312
**Risk Mgmt for Supervisors**
Gordon Grahm speaks on "Five Concurrent themes for Success, Why Things Go Right, and Ethical Decision-making"

$99.00
XNP 5313
**Risk Mgmt for Officers**
Gordon Grahm speaks on "Five Concurrent themes for Success, Why Things Go Right and Ethical Decision-making"
$99.00
XNP 5314
Critical Incident Resp Tips
A description is not available for this course.

$165.00
XNP 5315
Adv. Officer Survival
Advanced Officer Survival and Mobile Platoon Deployment - offered by James R. Davis

$185.00
XNP 5316
911 Oper.- Fund. of Terrorism
Fundamentals of Terrorism for 911 Dispatchers and Call Takers - by James R. Davis

$165.00
XNP 5400
Police Staff and Command
A description is not available for this course.

$4,500.00
XNP 5500
DISABILITY AWARENESS FOR LAW ENFORCEMENT
This course raises awareness among the law enforcement community of the problem of victimization of people with disabilities. Other components provide law enforcement officials with a broad understanding of disability issues including: state and federal laws pertaining to people with disabilities; how to recognize a disability and how to effectively communicate and interact; how to deal with an offender with a disability; and the structure and availability of disability services and resources in the community. (2 sessions)

$99.00
XNP 5600
High Risk Patrol Operations
A description is not available for this course.

$175.00
XNP 5700
OBJECTIVE PRE-EMPLOYMENT INTERVIEWING
There is a direct relationship between people who do not meet a hiring agency’s basic qualifications or behavioral requirements and their tendency to exaggerate, fabricate, minimize, or omit critical information needed to make hiring decisions. Legislation has been proposed that would eliminate government’s use of polygraph and various psychological tests (already illegal in the private sector). Record checks (criminal, credit, academic, traffic, etc.) require that a record exist (seldom the case, particularly with regard to criminal misconduct, violence, or conflicts of interest) and drug tests can be defeated by simple temporary abstinence. In short, it’s becoming increasingly more difficult - and expensive - to obtain accurate information regarding sworn and civilian candidates for employment. This course is appropriate for recruiters, personnel officers, background investigators, members of the oral board, and administrators charged
with the selection of police and other public personnel for positions of trust. It does
not attract negative media or legislative attention and often provides critical
employment information unattainable from any other source. (2 sessions)

$319.00
XNP 5705
Basic Leadership
This course is designed for first-line supervisors. The supervisor’s role will be
defined and skills to successfully fill that role will be discussed. Areas of study
include the functions of management, differences between managing and leading,
the role of creativity, team building and problem solving for a supervisor,
characteristics necessary for a supervisor to get the most from his/her direct
reports, a supervisor’s role in the total management structure of an organization,
how a knowledge of demographics, abilities, values, attitudes, perception, and
personality influence individual behaviors, the theories of motivation and how they
can be applied to successfully guide employees toward accomplishing
organizational objectives, the communications process, how to use it effectively,
and barriers to it, and managing all the stress, The Life Styles Inventory (LSI) will
be completed.

$359.00
XNP 5710
Advanced Leadership for Law Enforcement
Advanced Leadership for Law Enforcement is a 40-hour course directed toward
law enforcement managers, lieutenants and higher. Basic concepts of leadership
are reviewed, and knowledge and skill areas appropriate to the increased
responsibilities of administrative staff or line command positions are studied in
depth. These areas include teams and team building, trust, change management,
organizational culture, the Organizational Culture Inventory (OCI), conflict
resolution, the Conflict Style Inventory and negotiation.

$349.00
XNP 5715
Jo. Co Sheriff Department
A description is not available for this course.

$79.00
XNP 5720
Concealed Carry: Legal Rights and Officer/Subject Safety Issues
A discussion of the new Kansas Concealed Carry law; how it compares with
similar states; what are the requirements for citizens to carry; and what officer can
expect on the road and in regards to cultural shifts.

$69.00
XNP 5722
Concealed Carry Follow-Up
A follow-up to the Concealed Carry: The Police Perspective class by the Kansas
Attorney General's office.

$10.00
XNP 5725
Legal Update: What Law Enforcement Officers Need to Know
A description is not available for this course.

$49.00
XNP 5730

Objective PreEmployment Screen
This course is appropriate for recruiters, personnel officers, background investigators, members of the oral board, and administrators charged with the selection of police and other public personnel for positions of trust.

$319.00

XNP 5735

Civil Liability for Line Officers
A description is not available for this course.

$0.00

XNP 5740

Courtroom Testimony
This class will focus on the police officer's role as a witness. Styles is testifying, do's and don'ts and the needs of the prosecutor will be explored. Focus will be made on preparing the officer for cross examination, and how to effectively combat defense tactics.

$79.00

XNP 5745

Understanding Organizational Culture
Think about your law enforcement agency. What messages are being communicated by its organizational culture that may influence individual or group behavior. This class will address this and other issues involved with working in and through your agency's culture.

$79.00

XNP 5750

Emotional Survival for Law Enforcement
The goal of the course is to have the law enforcement professional review the potential impact the career causes in the personal life and develop strategies for overall emotional survival. The strategies are designed to permit the professional to continue functioning effectively and ethically without "burning-out" and without resorting to emotional isolation from friends and colleagues.

$165.00

XNP 5755

Gang Update for Law Enforcement
A description is not available for this course.

$79.00

XNP 5760

On-line Sexual Predators
This course is a detailed exploration of the increasing problem of online sexual predators. It will cover past and ongoing investigations. The focus includes Internet habits of teens as well as predators and the techniques that Johnson County Sheriff's department utilizes to investigate online child sexual offenders. This course will also include an overview of state, local and federal laws surrounding this criminal behavior.

$79.00
XNP 5810

Advanced FTO
Designed for Training Officers and Supervisors who have completed a basic Training and Evaluation Program course based on the San Jose Model. The advanced strategies used in this presentation are designed to maximize the effectiveness of those responsible for training and supervising the newly hired employee.

$319.00

XNP 5815

Criminal Interdiction
In this class, officers will learn how, during routine traffic stops, to identify indicators that may lead to investigation of other criminal activity. The course will also teach officers to identify hidden compartments; both those existing naturally in vehicles, and those that have been mechanically installed by sophisticated drug smugglers. Topics will include: Indicators, legal issues, racial profiling, rental cars, false compartments and use of K-9.

$99.00

Leadership (XBZ)

XBZ 0428

Leadership: Basic Principles For A Collaborative Workplace
Workplace As an employee, you must be willing and able to work with others in new collaborative ways. In this seminar, you’ll explore the basic principles for a collaborative workplace and the leadership roles you must assume regardless of position or specific assignment. You’ll learn the importance of collaboration and shared values in creating a high-performance organization, how to apply basic principles important to a collaborative workplace and five strategies you can use as a leader to create focus for yourself.

$169.00

XBZ 0431

Influencing Change for Win-Win Outcomes
Successful organizations thrive on new ideas that lead to better ways to work. But in today’s cross-functional workplace, successful implementation means those ideas need support from a wide range of people. In this seminar, you'll explore methods to analyze, develop and present ideas in a way that will help you win the necessary support and effectively deal with change for win-win outcomes. You’ll discover how to recognize situations where it is appropriate to use influencing skills, identify a variety of factors that motivate people, assess and understand the reasons for change and how to take positive action to make change successful.

$179.00

XBZ 0432

Proactive Listening
Proactive listening is a powerful tool for building and maintaining the strong relationships required to reach personal and organizational goals. Participants will learn verbal and nonverbal techniques to move from a "reactive" to a "proactive" approach to listening.

$114.00

XBZ 0433

Influencing for Win-Win Outcomes
Successful organizations thrive on new ideas because these ideas can lead to
finding better ways to work. In this program, participants learn to analyze, develop and present their ideas in a way that will help them win support.

$114.00

XBZ 0434

Giving and Receiving Constructive Feedback
Individually and organizations benefit from honest, objective feedback that can improve performance and build strong work relationships. Participants will learn constructive approaches to giving and receiving feedback, with an emphasis on maintaining a spirit of openness and mutual respect.

$114.00

XBZ 0436

Coaching: Bringing Out the Best in Others
Coaching is a powerful and effective way to maximize the performance of everyone associated with an organization. In this workshop, learn the coaching skills to motivate, guide and support one another in working toward and achieving top performance.

$114.00

XBZ 0438

Identifying Work Priorities and Setting Verifiable Goals
Employees often manage multiple responsibilities - cross-functional, project-related, short-and-long-term. Moreover, work assignments may come from various sources, resulting in difficulty determining priorities and assessing performance standards. Participants will learn a commonsense approach to formulating clear goals with measurable objectives so they can verify results. They will also learn to limit goals to those with high payoffs for the organization.

$164.00

XBZ 0439

Moving from Conflict to Collaboration
Employees at every level of an organization need to have the skills to turn conflicts into opportunities to achieve positive, productive results. Participants will learn to identify behavior patterns that undermine their ability to address conflict constructively.

$114.00

XBZ 0441

Gaining Commitment to Pre-Set Goals
This program offers leaders a process for helping move a group toward commitment to pre-set goals. This is done by building a compelling case, encouraging employees to express their concerns in order to move them toward commitment, and by identifying specific next steps.

$164.00

XBZ 0442

Correcting Performance Problems
This workshop provides a process leaders can use to get an individual’s performance back on track and build motivation for continual improvement. It focuses on discussions that are necessary after less-formal feedback and coaching have failed to result in improved behaviors.

$164.00
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>XBZ 0443</td>
<td>Personal Strategies for Navigating Change</td>
<td>In today’s workplace, employees are experiencing tremendous changes in the way work gets done and in the way people work together. This program offers participants an approach to navigating change by providing skills for taking positive action to make change successful, both individually and with others.</td>
<td>$114.00</td>
</tr>
<tr>
<td>XBZ 0444</td>
<td>Conducting a Collaborative Performance Review</td>
<td>In this interactive workshop, participants will learn to prepare for a performance review, to manage expectations during the discussions and to create an atmosphere that encourages openness about concerns or plans for the future.</td>
<td>$164.00</td>
</tr>
<tr>
<td>XBZ 0445</td>
<td>Managing Your Priorities</td>
<td>This program provides the awareness and skills participants need to make better decisions about their daily work. They learn techniques for handling complex interpersonal interactions, building strong work relationships, and increasing overall productivity in an environment with changing priorities.</td>
<td>$114.00</td>
</tr>
<tr>
<td>XBZ 0446</td>
<td>Sales Performance Showcase</td>
<td>A description is not available for this course.</td>
<td></td>
</tr>
<tr>
<td>XBZ 0447</td>
<td>Giving Recognition</td>
<td>Everyone must learn to give recognition to peers and even those outside the organization to create and sustain a productive workplace. Participants will learn how positive reinforcement inspires people to think beyond their immediate well-being and focus on the concerns of the group and the organization as a whole.</td>
<td>$114.00</td>
</tr>
<tr>
<td>XBZ 0452</td>
<td>Handling Emotions Under Pressure</td>
<td>In today’s high-pressure work environment, emotions are bound to erupt. An emotional outbreak is often a clue that a problem is affecting an employee’s ability to work effectively. In this seminar, participants will learn a process for handling the emotions in daily work situations and how to take charge in difficult circumstances.</td>
<td>$114.00</td>
</tr>
<tr>
<td>XBZ 0453</td>
<td>Moving the Organization Forward</td>
<td>In this seminar, participants will learn a collaborative planning process that taps into everyone’s expertise, creativity and enthusiasm so people can decide how to adapt the work they do to support the goals, strategy or direction in today’s fluid and fast-changing organization.</td>
<td>$164.00</td>
</tr>
</tbody>
</table>
XBZ 0454

Expressing Yourself: Presenting Your Thoughts and Ideas
We can all benefit from learning to express ourselves more effectively. This seminar increases confidence by helping participants better present their thoughts and ideas. Learn how to plan, organize and deliver results-oriented messages; skills useful in a variety of situations, from informal discussions to formal meetings and presentations.

$114.00

XBZ 0455

Telephone Customer Service
This seminar will show you which telephone skills make a powerful first impression on the customer. You will learn how the different ways a call is handled can influence a long term customer relationship. You will also spend time reviewing internal calls, messaging, etc.

$109.00

XBZ 2100

Core Skills for Building Commitment
This course teaches you how to get results through people. You will acquire a set of proven interaction skills, discover seven Leadership Imperatives key to meeting today’s challenges, and realize your role as a catalyst leader who inspires others to act.

$99.00

XBZ 2101

Facilitating Improved Performance: Web-
You will learn the skills needed to help people with performance or work habit problems. This course will show you how to help people develop improvement plans, conduct effective improvement discussions, and handle the challenges you may encounter in improvement discussions.

$99.00

XBZ 2102

Performance Planning: Setting Expectations
This course will help you prepare for and conduct planning discussions, encourage continued involvement, and work with members of project teams or task forces on their performance plans.

$99.00

XBZ 2103

Trust: Strengthening the Foundation
Trust is a key ingredient of employee engagement and loyalty. You will gain awareness of trust traps and strategies for overcoming them, helping you create an environment where people take risks, identify and solve problems, and work together.

$99.00

XBZ 2104

Following Up to Support Improvement
Dealing effectively with performance or work habit problems is one of the biggest challenges leaders face. This course will help you plan and conduct meetings with employees who need to improve or face prescribed organizational consequences.
$99.00
XBZ 2105

Guiding the Development of Others
This course will provide you with the necessary skills and a practical process to develop talent. It focuses on a leader’s critical role before, during and after the creation of a development plan.

$99.00
XBZ 2106

Delegating for Productivity and Growth
You will learn skills for successfully matching people, responsibility, and authority to maximize involvement, productivity, motivation, and growth for individuals, groups, and the organization.

$99.00
XBZ 2107

Performance Planning: Reviewing Progress
You will build skills for tracking progress, providing specific, balanced feedback, and conducting review discussions. The course material emphasizes your role of offering ongoing support, guidance, and resources while encouraging others to assume responsibility for achieving their plan. You will also focus on revisiting objectives and tracking methods if priorities change.

$99.00
XBZ 2108

Preparing Others to Succeed
You will be introduced to skills for guiding individuals and teams toward achieving successful results. You will learn the importance of helping people learn from successes rather than mistakes, how to balance seeking and telling, and how to conduct an effective coaching discussion.

$99.00
XBZ 2109

Leading Successful Meetings: Web-based
Meetings can be a source of frustration or a productive use of everyone’s time and talent. It often all depends on the leader, and it has a huge effect on productivity. You will learn the skills needed to ensure that meetings run efficiently, generate good decisions, and result in clear action.

$99.00
XBZ 2110

Guiding Conflict Resolution
You will learn to recognize signs of conflict, assess the conflict to determine your level of involvement, and serve as a catalyst to encourage those involved to achieve resolution. You will also learn how to provide support and to act as a mediator.

$99.00
XBZ 2111

Helping Others Adapt to Change
You will focus on the crucial role leaders have in effectively exploring change, introducing change, and helping others overcome resistance typically associated with change. You will learn how to conduct effective change discussions that
minimize the potentially negative effects of change on morale, processes, and productivity.

$99.00

**XBZ 2200**

**Coaching for Improvement**
Builds the skills leaders need to help people with performance or work habit problems. Equips leaders to help people develop improvement plans, conduct effective improvement discussions, and handle the challenges they may encounter in improvement discussions.

$114.00

**XBZ 2201**

**Coaching for Success**
Introduces skills for guiding individuals and teams toward achieving successful results. Leaders learn the importance of helping people learn from successes rather than mistakes, how to balance seeking and telling, and how to conduct an effective coaching discussion.

$114.00

**XBZ 2202**

**Delegating for Results**
You will learn skills for successfully matching people, responsibility, and authority to maximize involvement, productivity, motivation, and growth for individuals, groups, and the organization.

$109.00

**XBZ 2203**

**Developing Others**
Provides leaders, coaches, and mentors with the necessary skills and a practical process to develop talent. It focuses on a leader's critical role before, during, and after the development plan.

$114.00

**XBZ 2204**

**Essentials of Leadership**
This course teaches you how to get results through people. You will acquire a set of proven interaction skills, discover seven Leadership Imperatives key to meeting today's challenges, and realize your role as a catalyst leader who inspires others to act.

$109.00

**XBZ 2205**

**Leading Change**
You will focus on the crucial role leaders have in effectively exploring change, introducing change, and helping others overcome resistance typically associated with change. You will learn how to conduct effective change discussions that minimize the potentially negative effects of change on morale, processes, and productivity.

$109.00

**XBZ 2206**

**Resolving Conflict**
You will learn to recognize signs of conflict, assess the conflict to determine your level of involvement, and serve as a catalyst to encourage those involved to achieve resolution. You will also learn how to provide support and to act as a mediator.

$109.00

XBZ 2207

Getting Started as a New Leader
Are you a new leader who has direct reports for the first time? In this course you will focus on developing a relationship with your boss, assigning work, dealing with direct reports who used to be peers, and key HR policies and processes. You will also be given a roadmap for success for your first few weeks on the job.

$109.00

Legal Education and Mediation (XNL)

XNL 1000
Principles of Core Mediation: How to Settle Disputes
You will gain valuable information about the mediation process and how it can be used to effectively settle conflicts. Our instructors are state-approved mediators who will teach you the stages of core mediation, which involves neighbor-to-neighbor disputes, as well as the guidelines for using mediation in your current position. Upon completion of this course and the Practicum you can apply with the state of Kansas to be an approved core mediator.

$449.00

XNL 1005
Mediation Practicum
The Mediation Practicum involves co-mediating three actual court cases under the supervision of a state-approved mediator. To become state-approved you must co-mediate all three cases in the content area in which you wish to specialize (core, civil, domestic, juvenile dependency or parent/adolescent). This practicum will meet the Core requirement only. Contact the Professional Education office at 913-469-4420 for more information.

$299.00

XNL 1010
Domestic Relations Mediation Training
You will learn to apply mediation principles to situations involving divorcing parents who are in dispute over their children, disputes pertaining to access to their children or co-parenting matters. Course materials include a review of mediation principles, application to divorce situations, child development, conflict theory, ethics, Kansas laws, resource development and networking. You will participate in several role-play activities to practice your skill development. This course has been approved by the KS Supreme Court to meet the educational/classroom requirements for approval as a domestic mediator. Upon completion of this course and the Domestic Practicum you can apply with the state of Kansas to be an approved domestic mediator. Prerequisite: Principles of Core Mediation.

$429.00

XNL 1015
Civil Mediation Training
You will focus your mediation skills to practice resolving disputes between employers and employees, management and labor, businesses and consumers, government and environmental groups, residents and communities. The training
techniques include lecture, video, class discussion, demonstrations and student role-plays. This course has been approved by the KS Supreme Court to meet the educational/classroom requirements for approval as a civil mediator. Upon completion of this course and a Civil Practicum you can apply with the state of Kansas to be an approved civil mediator. Prerequisite: Principles of Core Mediation.

$429.00

XNL 1046

Divorce: Its Impact on Children and the Role of Mediation
Divorce has a tremendous impact on children. In this specialized seminar you will learn about the consequences of divorce on children by examining their different developmental stages. You will also discuss the role parents play in helping children cope with divorce or conversely how parents can complicate and undermine the children’s coping skills. You will learn about the role mediation plays in different ways parents and children deal with divorce.

$49.00

XNL 1055

Parent/Adolescent Mediation Training
In this 16-hour course you will be trained in the skills of mediating parent/adolescent cases. Upon completion of this course, you will be qualified to make application through the State of Kansas Office of Judicial Administration to become an approved parent/adolescent mediator in the State of Kansas. Included in the course content is a short review of basic mediation principles, child and adolescent development theories, family psychology, parent/adolescent relationships and the mediation process itself. The course presentation will offer ample opportunity for role play and class discussion. Prerequisite: Principles of Core Mediation Training.

$295.00

XNL 1066

Juvenile Dependence Mediation
Juvenile Dependency Mediation is the newest category of mediator approval. In this course, you will study the use of mediation in cases where children are removed from the home pursuant to child welfare statutes. You will learn how the juvenile dependency court functions, the players in that process (SRS, private contractors, district attorneys, CASA, GALs, the court) and how mediation can be used to find placement which is in the best interest of children. Prerequisite: Domestic and/or Parent/Adolescent Mediation Training.

$385.00

XNL 1121

Introduction to Environmental Mediation
You will learn fundamental information about environmental law, science, technology and social inequalities; and the economics of environmental disputes. In addition you will explore each of these issues through case study role-plays, with follow up critiques and discussion. ADR practitioners interested in expanding their horizons should enroll, however, if you are interested in learning about environmentally significant issues and community/environmental well-being, you may find this course worthwhile. This course has been approved for three hours of civil mediation continuing education. Prerequisite: Core Mediation Training.

$45.00

XNL 1122

Introduction to Transformative Mediation
The primary focus of this 12 hour seminar is to explore the practices and premises of transformative mediation. Through presentation, the theoretical framework of
transformative mediation will be illustrated. Exercises and role plays will give participants an opportunity to experience how transformative mediation is practiced. Participants will explore how their assumptions about conflict influence their approach to mediation. Prerequisite: Core Mediation

$200.00
XNL 1126
Mentoring New Mediators
This course will prepare experienced mediators to become Kansas Supreme Court-approved "mentor mediators", ready to supervise and guide new mediators in their actual practice. Participants need to have conducted 10 or more full mediation cases in any setting - core, domestic, civil, parent-adolescent, victim-offender, etc. Participants are encouraged to read "The Making of a Mediator" by Michael Lang and Alison Taylor prior to the class.

$69.00
XNL 1140
Principles of Restorative Justice
This introductory course will present the underlying values of Restorative Justice principles. Whether it is act, employment dispute, school quarrel or neighborhood disagreement, Restorative Justice may offer alternative framework for thinking about wrongdoing. At its core is a philosophy that can provide an alternative for mediators to use.

$95.00
XNL 1150
Conflict Management Skills for Professionals
You will learn a simple and effective framework for approaching conflict in professional settings. You will gain an awareness of potential disputes, foster communication about differences and respond constructively to clients, staff and colleagues. With these skills you can manage your own reaction to difficulties and create positive outcomes.

$59.00
XNL 1151
Family Mediation-It's Not Just for Divorce
Mediation is a powerful tool for resolving conflict through the family life cycle. You will learn a blend of relations mediation skills and family systems theory tailored for family issues on the continuum of family experience: birth and adoption, parents and adolescents, blended families, aging parents and end-of-life. You will learn how to expand your mediation practice by working with families at various stages of life.

$49.00
XNL 1157
Employment Mediation
Not all workplaces lend themselves to mediation. In this course you will learn to create a positive environment that uses mediation when needed. You will review conflict theory and negotiation theory as applied in appropriate environments. You will also develop strategies for using mediation in your workplace. Prerequisite: Read and be ready to discuss "Getting to Yes". This book is included as part of the course fee.

$119.00
XNL 1160
Negotiating Win/Win Solutions
You will enhance your negotiation skills by discussing ways to separate the people from the problem, focus on interests not positions, develop creative options for mutual gain while insisting on the use of objective criteria. You will discover your preferred negotiation style and how it compares to others. The required textbook will be provided.

$129.00  
XNL 1171  
Introduction to Transformative Mediation  
You will learn the underlying premise that defines the approaches to transformative mediation. You will discuss specific methods, models and exercises that convey the nature of a transformative approach. Understanding these principles will be helpful to you regardless of your current style of mediation.

$49.00  
XNL 1172  
Communication Strategies and Techniques for Mediators/Negotiators  
Whether you are mediating disputes or negotiating agreements on your own behalf, your success depends largely on the manner in which you communicate with other parties. In this highly interactive course you will review the role of perception in negotiation, examine your nonverbal and listening strategies, and improve your skills in constructing messages, word choice, diplomacy and tact.

$99.00  
XNL 1177  
Beyond Impasse Attitudes and Skills  
You will learn to generate new energy and creativity as a mediator with techniques such as positive approaches, humor and mindset to help parties move past obstacles towards solutions.

$49.00  
XNL 1180  
Negotiating with Power, Influence and Leverage  
Do you need to upgrade your negotiating strategies? This course will cover the relationship between perception and power, sources of power, strategies to increase your leverage at an uneven table, and strategies to enhance your ability to persuade and influence others in interpersonal, group and organizational negotiations.

$59.00  
XNL 1181  
Working With High Conflict Families  
Are you ready to arm your practice with a positive mindset and new strategies for working effectively with the high conflict families who use the most service time and community resources? This course highlights interdisciplinary approaches to adult learning and cognitive behavioral change. You will learn simple but effective skills to manage emotions, streamline communication and negotiate with challenging clients.

$59.00  

Lifetime Learning (XLN)  
XNL 1002
Life in Arabia with a Saudi Princess
Author, Teresa McCown, shares her ten-year experience living with a Saudi Arabian royal family. She will discuss the insight gained from those ten years of life with a Saudi princess as her employer and friend. The events of their long journey are chronicled in two books she has authored. Shifting Sands: Life in Arabia with a Saudi Princess and Creating Shamsiyah: Staging the Saudi Feminist Movement. Books will be available for sale at the conclusion of the presentation.

$6.00
XLN 1003

Boots and Stetons: The Kansas Cowboy
Meet the cowboys and cowgirls who helped create America’s legendary folk hero and today make Kansas a leading producer of beef and champion rodeo performers. Authentic folk songs recall the cowboy’s origins in the great 19th century cattle drives. Note: There is no fee for this class but registration is required.

$6.00
XLN 1005

VanGogh: Portrait of an Artist
Vincent VanGogh was a troubled man with a gift for expressing what he saw in paint. We will explore his short life and experiences, including time with fellow painter, Peter Gauguin, and the paintings which resulted.

$7.00
XLN 1009

Who Are You? Stealing Your Identity
A Special Agent from the U.S. Secret Service will discuss the ins and outs of identity theft. A PowerPoint presentation will focus on "Identity Theft" and ways you can protect yourself. A brochure will also be handed out for future references. Questions will be entertained at the end of the presentation.

$6.00
XLN 1011

Life is Marbleous
My memories gathered during my travels along with a short history of marbles. Also, a chance to get to know your marbles if you haven’t lost them. If you wish you can bring your marbles with you to find out if they have value.

$6.00
XLN 1050

Dead Sea Scrolls
Events surrounding publication of the Dead Sea Scrolls since 1947 will be outlined. Wide spread dispersal of the Scrolls translation since 1990 will be the main focus.

$6.00
XLN 1127

JCCC Campus Art Tour
See the latest in new campus art including sculptures and permanent art installations. This class is a walking tour around campus, please wear comfortable clothes and walking shoes. Meet in the lobby in front the Gallery of Art, main level in the Carl森sen Center. Note: Enrollment limited to 25.
Fitness and Nutrition after 55
Discussions will be on the importance of physical activity, Wellness, and the knowledge of exercise and how imperative it is to the individual's physical fitness, emotional health and intellectual growth. There will also be a tour of the facilities.

Literature and Writing (XKL)

XKL 1013
Write What You Know
Learn how to tap into your personal experiences and write manuscripts that people want to read. This class helps you draw from your personal, educational and work experience and write for publication. The class will also explore tools for writers and teach you how to draft a query letter and book proposal.

XKL 1014
Writing Mystery Fiction
Join Lawrence and Suella Walsh, authors of children's mystery novels and former mystery editors, and learn how to begin a mystery, how to create suspense and how to plant the clues. This session will include class discussion and writing exercises.

XKL 1043
Writing Fiction That Moves
Do you know how to "show don't tell?" How to move through a scene, viewing everything through your protagonist's eyes? How to insert, flashback without stopping your story? Join professional writers, Laurence and Suella Walsh, and learn techniques that will keep your story moving.

XKL 1044
Writers Group
This facilitated writers group provides a supportive atmosphere to develop and polish fiction, nonfiction, essays and poetry. Each class begins with a discussion of writing or publishing topics. Members read their work and receive suggestions for effective revision and publication. Students should bring 10 manuscript pages of their work-in-progress or 3-4 poems to the first class.

XKL 1047
Fictional Plot
Join professional writers, Lawrence and Suella Walsh, and learn the six elements necessary to develop the fictional plot. The group will participate in constructing a plot of their own. This class will illustrate the plot skeleton upon which 80% of fictional stories are built.
Creating Fictional Characters
Join professional writers, Lawrence and Suella Walsh, and through a character chart and visual aids, watch a character come to life. The group will participate in developing the character. This class provides techniques for creating characters that will seem real to readers.

$12.00
XKL 1063

Getting Started Writing Stories
What stories do you know? What stories would you like to tell? We'll work to mine your thoughts and experiences for stories, and to open up your receptivity to the stories surrounding you right now! You'll participate in in-class writing exercises and write the beginning of one story.

$14.00
XKL 1066

Knowing Your Characters
How do you get your reader on your character's side--and in your character's head? How much do you reveal your character through dialogue, action, and description? Learn to create vivid, complex, and interesting characters so real they jump off the page and into your readers' hearts.

$14.00
XKL 1067

Point of View
Omniscient? First person? Second or Third? Who is your narrator? Multiple points of view on the same event. This class will help you decide which point of view will work best for your story. From in-class exercises you'll learn how to write from various points of view.

$14.00
XKL 1068

Plot and Time in Fiction Writing
How should you structure your plot? What needs to happen...and how and when? How do you time the action so your reader can't put the story down?

$14.00
XKL 1069

A Sense of Place
How are your characters and plot influenced by where your story occurs? Should your setting become as active as your characters? How do you weave information about place into action and dialogue? You'll learn the importance of setting in fiction and how to create vivid, real settings for stories.

$14.00
XKL 1078

Writing Great Dialogue
Writing great dialogue means developing an "ear" for the patterns of natural human speech and then learning to shape and craft that speech so that it sounds natural and reads like writing on the page. A fun class in which you get to eavesdrop!

$14.00
XKL 1079
Sensory Writing
Words that reflect the senses of smell and taste, hearing, and sight can make your writing richer. Practice sensory writing by creating descriptions from a food-tasting session, a photographic exhibit, and a variety of audio recordings. Instructor is an award-winning writer, restaurant critic, and photographer.

$25.00

XKL 1082
Finding Your Voice
We'll discuss why it is important to develop your unique voice and techniques to help you do this. Topics include the elements of style in writing: figurative language, sound, rhythm, sentence structure and language.

$14.00

XKL 1083
Getting Started Writing Your Novel
We'll talk about how to get started on your novel as well as how to move ahead when it begins to get rough. You'll learn writing techniques to get your plot moving, planning techniques to develop a structure for the book, and ways of more deeply understanding your characters so you can begin to let them write your novel for you.

$14.00

XKL 1084
Fiction Writing Workshop
Now is your opportunity to gain the real benefits from your study of fiction writing techniques by sharing your work with your peer writers. Bring copies of a recent fiction piece you've written. It can be a short story, chapter in a novel, or some form. (Call 913-469-3836 one week before class for number of copies needed.) We'll read these in class and provide responses with the intention of encouraging your development as a fiction writer.

$14.00

XKL 1086
Enhancing Creativity Through Meditation
Enhance your innate creativity through meditation and creative visualization. The tools taught in this class will help you access the treasures of your creative mind. Perfect for writers, artists or anyone who wants to expand their creative skills. Students should wear comfortable clothes and bring note taking supplies and a blanket and pillow for comfort.

$14.00

XKL 1087
Writing "Experimental" Fiction
Working in new forms can open up new territory in your writing and creativity. We'll explore a range of new genres developing in the fiction writing world, including the "short short," the prose poem, post modern and experimental fiction by reading examples and practicing these forms in writing exercises.

$14.00

XKL 1088
Article Leads and Structure
Have you been told your first paragraph must capture the reader's attention?
Were you warned that editors won’t read further if you don’t accomplish this goal? Join professional writers, Lawrence and Suella Walsh, and learn methods to hook readers from the first paragraph and hold their attention until the end of the article.

$12.00  
XKL 1089  
Tight Writing
Ever wish you could use less words on paper to get your message across? Through interactive exercises, you will learn to cut unnecessary words from your writing. Instructor is a professional freelance writer.

$25.00  
XKL 1140  
Writing Children’s Literature
Join professional children’s authors, Lawrence and Suella Walsh, and learn some fiction techniques used in writing for juvenile’s (8-12) and young adults (10-15). Discover how to see the world through the eyes of a child and how to market your stories.

$12.00  
XKL 1408  
Creating Fictional Characters
Join professional writers, Lawrence and Suella Walsh, and through a character chart and visual aids, watch a character come to life. The group will participate in developing the character. This class provides techniques for creating characters that will seem real to readers.

$10.00  
XKL 5000  
The Craft of Magazine Writing
Have you ever thought about writing for magazines? Turn your dreams into bylines and help yourself to a bright future as a magazine writer. It’s fun, it’s easy, and a great source of extra income.

$82.00  
XKL 5001  
Write Your Life Story
Have you thought about writing your story, sharing life-altering events? This course walks you step-by-step through the process of writing your life story. It’s fun. It’s exciting. It’s a story only you can tell.

$82.00  
XKL 5002  
Writeriffic: Creativity Training for Writers
Who doesn’t know the fear of the blank page? How can we transform our visions into the written word? Is it really possible to become a terrific writer? You’ll find the answer to these and more of your questions in Writeriffic. Writeriffic liberates the imaginative, inventive bolts of genius that are inside everyone.

$82.00  
XKL 5004  
A to Z Grantwriting
A to Z Grantwriting is an invigorating and informative seminar specially created for
executive directors, organizers, board members, community volunteers, development officers, and individuals who want to learn a "birds eye" view of the grantwriting process and learn how to: research and develop mutually beneficial relationships with potential funding sources, requests and donations, prepare complete proposal packages and dissolve crisis management and submit 100 proposals a year in 10 hours a week.

$82.00  
XKL 5005  
Your Screenwriting Career  
Learn how to write and sell professional-quality screenplays from a Hollywood veteran with experience in radio, video, television, film, and the Web. In this six-week online course, you'll learn about the relationship between classic story structure and Hollywood formulas, and you'll understand which genres will provide you with the greatest change of success.

$82.00  
XKL 5006  
Fundamentals of Technical Writing  
Learn the skills you need to succeed in the well-paying field of technical writing. You'll discover the secrets of successful technical writers, including technical writing conventions, interviewing skills, documentation management, publishing and formatting techniques, and how to get your first job as a technical writer.

$82.00  
XKL 5007  
Beginner's Guide to Getting Published  
A published writer shows you how to give yourself the credibility you need to get your books and articles published.

$82.00  
XKL 5008  
Writeriffic II: Advanced Creativity Training for Writers  
Increase writing confidence, beat writer's block, manage time, negotiate writing fees, write and live your dreams. Learn advanced methods to create and write like the professionals - whether you're launching a career or seeking personal satisfaction through writing. In Writeriffic 2, you'll learn to be the writer you've always wanted to be and have fun too.

$82.00  
XKL 5009  
Correcting Oral and Written Errors  
You will address four principal areas of common errors: usage, punctuation, spelling, and pronunciation and slang. Once you complete this course, you'll instinctively speak and write with assurance that your word choices, punctuation, spelling and pronunciation are correct.

$82.00  
XKL 5010  
Get Grants!  
Learn how to develop successful, fundable grants from experts whose proposals have garnered millions in funded projects. This course will give you the skills you'll need to prepare professional, competitive, and compelling grant proposals. You'll understand what funding agencies are looking for and how best to approach them. Your proposals will help you and your organization successfully Get
Writing Great Technical Documents
Do you write technical documents? Would you like to learn how to write them better? You'll learn how to choose the right words, write powerful sentences and paragraphs that flow, use technical terms, improve your grammar and punctuation, use graphics, and format your technical documents to get results.

Creating a Sense of Place
This practical course is filled with hands-on exercises that will help you create fascinating and truly unique works of fiction or nonfiction. By the time you finish this course, you'll be well-prepared to convert your everyday observations and experiences into believable characters, memorable settings and vivid descriptions.

Demystifying Forensic Science: A Writer's Guide
This course will provide you with a quick education in forensic science, revealing all the secrets you'll need to know in order to write about crimes and crime-solving with knowledge and confidence.

Advanced Grant Proposal Writing
Gain a full understanding of the criteria funders use to determine whether your grant proposal gets funded or rejected. Requirements include completion of an introductory grant writing course or equivalent experience.

Grammar Refresher
Gain confidence in your ability to produce clean, grammatically correct documents and speeches. Grammar refresher will also cover the basics of English grammar.

Introduction to Journaling
Discover how journaling can help you learn more about yourself, explore your dreams, values, and beliefs, improve your health, survive unwanted change, succeed in your career and express your creativity.

Pleasures of Poetry
If you want to write poetry, this course will help you create your best possible work, whether you're looking to be published or simply wish to craft a beautiful poem as a gift for a friend.
$82.00  
XKL 5019  
**Writing for Children**  
Discover how you can touch the hearts of children by creating books for them. In this highly interactive, hands-on course, you'll take pen to paper and begin work on your first fiction or nonfiction manuscript. You'll explore the changing world of children's literature and understand the various formats-from baby's first books to novels for young adults.

$82.00  
XKL 5020  
**Mystery Writing**  
Using vivid examples from bestselling mystery novels, this course will teach you the techniques you need to become a successful author. Topics include three-act structure, the difference between plot and story, theme, premise, characters and viewpoint, plus you'll develop your own story.

$82.00  
**Management Development (XDM)**

XDM 0501  
**Train the Trainer**  
This intensive seminar teaches you effective course design and presentation skills. You'll cover the principles of adult learning and how to develop educationally sound training sessions, effective presentation skills and creative training techniques. You will be videotaped and have a peer critique of your training presentation skills.

$350.00  
XDM 0503  
**Effective Supervisory Skills**  
As a supervisor, you're asked to empower your workforce using a team approach for greater productivity. You'll learn how to provide leadership for groups and hold them accountable for their own productivity, how to involve employees in their own appraisals and strategies for training new employees.

$159.00  
XDM 0510  
**How To Manage Assertively**  
Assertiveness is the communication style proven to be most effective for getting results and improving work relationships. Learn techniques for communicating assertively at work and at home, when it's not appropriate to use assertiveness, and how to delegate work comfortably and effectively.

$159.00  
XDM 0521  
**Facilitating Meetings**  
Turn mediocre meetings into meetings that produce results! So that you can plan and conduct more effective meetings, you'll learn tools to enhance the meeting process, facilitation and communication skills, and strategies for dealing with difficult meeting participants.
XDM 0537

Problem Solving
How can you keep problems from controlling your life? In this seminar, you'll learn how to determine the root causes of a problem, look at the factors necessary in implementing solutions and managing change, and study a process of flow charting that will help you resolve problem issues.

$159.00

XDM 0539

Increased Personal Productivity
It takes more than good intentions to manage your time. Learn how you can take control to increase your personal productivity by developing goals that get results, setting priorities and staying on track. Plan what you want to achieve and make it happen. These specific strategies and tools for time management will decrease stress and increase success.

$169.00

XDM 0540

Supervisory Skills Assessment Center
Offered exclusively by the Center for Business and Technology! Find out what you do well - and what you can improve - through this individualized "diagnosis" of your strengths and development needs in 9 skill areas. During the initial one-day assessment, you'll try your hand at an "in-basket" exercise to see how you handle everyday business challenges, and we'll videotape your interactions in four simulated business situations with a direct report, a peer, a customer and in a group meeting. Your actions and reactions will be evaluated and, three weeks later, you'll receive your "diagnosis". During that in-depth, half-day session, you'll talk to an assessor in a 30-minute private phone session to help you interpret your report and a trained Center for Business and Technology professional will work with you to create a personal development plan with action items that will help you meet any challenge.

$1,650.00

XDM 0545

Project Management
In this 12-hour, hands-on course, you will learn the models, tools and techniques used in project management. You will start with tasks and requirements, and a systematic approach to project management, including initial planning, goal setting, plan development, delegation, implementation and follow-up. You will look at ways to get results through people, as well as techniques for problem solving, dealing with conflicts and facilitating effective project meetings. You're encouraged to bring a project of your own to the session so you can directly apply what you're learning.

$299.00

XDM 0551

Roles and Skills for Supervisory Success
The responsibility of a supervisor is to obtain consistent performance from employees. In this program, participants will learn how to make the transition from employee to supervisor, how to define their jobs, and how to avoid the most common factors that can cause a supervisor to fail.

$114.00

XDM 0566

Understanding the Human Resources Function
This course is designed to help people without experience in human resources to
understand this very vital link in the organizational chain. It will prepare both managers and business owners to handle basic human resource functions in a way that will ensure the best possible result.

$109.00
XDM 0567

Helping New Employees Be Successful
This seminar is for managers and human resource professionals who want to help their new employees succeed. Long and short term career success can depend on how well a person does during their first year on the job. The "art of being a new employee" is something many people don't give much thought to. This session focuses on what employers and employees need to know about during the critical first year on the job. Avoiding new job mistakes and the basics of succeeding in the workplace is the focus of this seminar. What can your organizations' managers and human resource professionals do to help new employees be more successful and productive? Attend this seminar and go home with new and reinforced knowledge about how to make your investment in new employees pay off.

$99.00
XDM 0588

Principles of Sales Management
Master the art of managing sales teams from a sales management professional. Learn the essential roles and responsibilities of a sales manager and develop leadership, motivational, and team-building skills. Learn proven techniques and strategies for communication, conflict resolution, and sales planning to deliver superior sales-team results.

$109.00
XDM 0591

Effective Business Writing
Do you have a nagging suspicion that a small improvement in your writing skills might also improve your career prospects? If you communicate with others in writing, this course can help you identify and eliminate problem areas.

$109.00
XDM 0592

Project Management @ e-Speed
With accelerated schedules driving many technology projects today, the smart project manager must rapidly retool their skill set. This course offers a breakthrough model for dealing with the realities of managing projects at supersonic speeds. Learn to meet and win the challenges of truncated timelines, short-staffed project teams, skimpy budgets, and crippling risks.

$99.00
XDM 0595

Needs Assessment & Evaluation:
Design Them Together for Best Results Are you responsible for meeting the training needs of your staff? Do you need to prove it worked? This session addresses various techniques for determining training needs whether it's for one or many. We also explore numerous ways to develop an evaluation system that will prove the training made a difference and help you justify your training costs. Various author's models for assessment and evaluation will be discussed. Participants will leave with a draft of both a needs assessment and an evaluation tool.

$189.00
XDM 0596

Creative Training Techniques to Help Learning Happen
Want participants to remember your key learning points longer? Want folks to enjoy the training as well as learn? Well, that's what adding in more creative training techniques can do for you - you'll get more "ah ha" moments per session guaranteed. We'll work through openers, energizers, object lessons, games, exercises and closers that will keep the learning alive. And we'll have fun doing it guaranteed!

$189.00

XDM 0597

Virtual Teams: The Next Generation
Do you lead teams where you interact primarily via email, videoconference or teleconference? Want tips for getting the work done faster and easier? The next generation of teams are teams that don't get together physically but work together across the country or globe on a project. This type of team takes a different kind of leadership approach than traditional teams. Come join us in a discussion of how we can get these teams off to a quick start, get the work accomplished and maximize the process of virtual teaming. We will focus on the interpersonal side of these teams rather than on the mechanics or systems that support them.

$209.00

XDM 0598

Program Design for Trainers
Do you design your own training? Do you want it to be both educationally sound AND fun for the participants? ASTD estimates it takes 8 hours per 1 classroom hour of design time- do you want to do it faster? In this program, you will develop training that maximizes the learning of key knowledge and skills, shortcuts you can take to program design and ways to add in fun to increase learning retention. We will also discuss the pros and cons of designing training yourself versus customizing "off the shelf" training. You will leave with the structure for a training program designed!

$189.00

XDM 0599

Project Management: Managing the Project Team
The purpose of this two-day session is to provide participants with an understanding of the need for effective use of interpersonal skills and using the resources of people to obtain the expected results of the project. This class covers many issues in regards to communication, defining expectations, holding project meetings and making the most of team differences.

$349.00

XDM 0600

Administrative Assistant Fundamentals
This course will help you discover and master the essentials of managerial and staff support, information and records management, communications technology, travel and meeting coordination, space planning, and office ergonomics.

$109.00

XDM 0603

Boss' Day Celebration
A description is not available for this course.

$95.00
XDM 0604
Phil Jackson - Coaching
A description is not available for this course.

$85.00

XDM 0606
100 Ways to Engage Your Audience
Putting power and excitement into your presentation engages your audience so that your content comes alive and the audience takes home information they can use. You will learn how to infuse your presentation with techniques and activities that will engage every learner, by tapping into their many intelligences. You will learn how to map your presentation, plan for involvement, and experience the activities so you can use them immediately.

$159.00

XDM 0607
Accelerated Learning
In this dynamic program, you will learn how to strengthen your own particular learning style and learn better in the future. Also, you will gain insight on how you can teach and train others more effectively using the accelerated learning principles in all areas of work and life.

$189.00

XDM 0608
John Kotter Videoconference
A description is not available for this course.

$69.00

XDM 0609
Project Management Follow Up Workshop
This four hour workshop is a follow up to the Project Management course and is designed to provide the participants with an opportunity to discuss how they have applied the skills learned. Additional discussion includes: what is working, what could be done differently, tips and techniques, as well as addressing specific issues related to the participant’s project.

$99.00

XDM 0610
Ethical Leadership: Advancing the Plan and Recovery
A practical, interactive seminar for executives that addresses the reciprocal relationship between ethical practices and community in the workplace, featuring Clifton L. Taulbert and Alexander B. Horniman.

$100.00

XDM 0611
Assessment Showcase
A description is not available for this course.

XDM 0612
Team Follow Up
A description is not available for this course.
XDM 0613

Employment Law Fundamentals
Learn the basics of employment law so you can legally hire, evaluate, and manage employees. This course is a must for anyone who is (or aspires to be) a supervisor, manager, or human resources professional.

$109.00

XDM 0614

Customer Service Fundamentals
In this course you will learn a number of customer service techniques to keep the customer very satisfied. Topics include measurement of customer service, communication, especially with upset customers, being a good ambassador, teamwork, telephone etiquette, how much service is "enough," the different ways customer service can be performed and what can be done to hang on to a customer who's about to take their business somewhere else.

$109.00

XDM 0615

A Workplace of Differences: Building Cross-Cultural Competence
If you see yourself as a workplace leader now or in the future--whether you take a leadership role as the new member of a work team, as the head of an organization or somewhere in between, this workshop will help you open up your worldview of various cultures and integrate new success skills into your daily interactions.

$159.00

XDM 0616

Winning the Battle Against Negativity
Can you think of a person you've worked with who's had a habit of making pessimistic remarks - no matter what the subject? Someone who seemed to enjoy dragging others down to their level of sour attitude? Or what about the co-worker who has had a temporary lapse into disagreeable thoughts and contention? This seminar is about people who are short-term or long-term cynics and naysayers, and how you can help them see the bright side of things.

$159.00

XDM 0617

Cost-Effective Trade Show Selling
This fun and highly interactive session is ideal for any exhibitor that wants to increase his or her return on investment (ROI) at trade shows and conferences. This workshop focuses on "real-life" selling situations, including how to increase booth traffic, how to generate qualified leads and how to get a commitment. We'll also talk about how to enhance your chances of winning business with appropriate post-conference follow-up.

$159.00

XDM 0618

The Consultative Sell -- Achieve Continuous Sales Success
What can you do to turn prospects into clients, and then keep them? Consultative selling is the answer. This upbeat and practical course focuses on the mind-set of consultative selling. It starts with thinking about your client before, during and after the sale, and ends with keeping your clients for life!

$159.00

XDM 0619
Team Showcase
A description is not available for this course.

XDM 0620
The Power of Values, Vision and Mission
This session is designed to explore the power of values, vision, and mission in shaping and providing clear direction. This workshop will enable participants to clarify their values, write a vision statement and a mission statement, and understand the importance of all three in the business environment.

$169.00

XDM 0621
Accounting Fundamentals
If you're interested in increasing your financial awareness and accountability while also gaining a marketable skill, this course is for you. We'll cover all the bases, from writing checks to preparing an income statement and closing out accounts at the end of each fiscal period.

$109.00

XDM 0622
Fundamentals of Supervision and Management
Learn how to be an effective manager or supervisor. Master the basics of business and organizations, learn the people skills required to motivate and delegate, and learn tools for solving problems and resolving conflicts.

$109.00

XDM 0623
Fundamentals of Supervision and Management II
Learn how to be an effective manager or supervisor. Master the basics of communicating effectively, and learn tools for developing your own interpersonal skills. Completion of Fundamentals of Supervision and Management (or equivalent experience) required.

$109.00

XDM 0624
Thank Goodness It's Monday - Putting FUN to Work
This session is fast-paced, interactive and energizing. It will build team spirit, inspire people and create a greater sense of pride in the organization. You will learn and create strategies to make your work environment better.

$114.00

XDM 0625
Building an Ethical Business
Master the knowledge and skills needed to build an ethical business and give your company tremendous competitive advantages. Learn how to solve everyday ethical dilemmas in hiring, firing, working conditions, job discrimination and sexual harassment, and explore the social responsibility of companies and their employees for product safety, truthful advertising, and the natural environment. Discover how ethical behavior creates goodwill, enhances reputations, and expands opportunities for new and increased business.

$145.00
Process Management: How to be a Leader of

Every activity that requires your time can be identified, documented, measured and, ultimately, improved. You will learn the steps of process management, your roles and responsibilities, value-added and non-value-added analysis, and the importance of cycle-time.

$169.00
XDM 0627

Project Management Essentials
This course uses lecture, discussion and case studies to provide an overview of project management concepts and principles. Topics include the Project Management Framework, Iterative Process Model, types of organization structures, and assessing project quality and risk.

$899.00
XDM 0628

Estimating and Managing Project Costs
The successful management of project cost is essential for organizations. Students will practice developing estimates, creating estimate forms, and analyzing cost reports. Prerequisite: Project Management Essentials or equivalent knowledge and Effective Project Scheduling and Control.

$299.00
XDM 0629

Project Risk Management
In this course students will gain an understanding of risk management, the role and elements of a risk management plan (RMP), and how to apply these methods to software risk management. Prerequisite: Project Management Essentials or equivalent knowledge.

$299.00
XDM 0630

Effective Project Scheduling and Control
Project managers are charged with developing and managing project schedules. On-time delivery is often critical to project success. This course ensures students have a foundation of critical path method (CPM) scheduling concepts, and the ability to build a workable project plan. Prerequisite: Project Management Essentials or equivalent knowledge.

$599.00
XDM 0631

Effective Communication for Project Managers
Managing project communications is one of the most important duties of a project manager. This course emphasizes the importance of communication skills in building strong partnerships between technical professionals, project managers and their customers. Prerequisite: Project Management Essentials or equivalent knowledge.

$599.00
XDM 0632

Project Leadership, Team Motivation and Contract Management
Good leadership and team motivation is critical for the success of any project. In this course, students are introduced to the elements and methods of leadership in a technical environment as well as the tools and techniques for team development. Prerequisite: Project Management Essentials or equivalent knowledge.
Project Quality Management
Project Quality Management focuses on overseeing product quality and ensuring process quality when creating project deliverables. In this course students master the quality planning process, quality planning tools and metrics, and quality assurance. Prerequisite: Project Management Essentials or equivalent knowledge.

Real World Project Management Application
This course is designed, but not limited to, as a capstone for the Certificate of Project Management. In this workshop, students gain experience by putting their knowledge into practice by simulating managing a real-world IT project. Prerequisite: Project Management Essentials or equivalent knowledge; Effective Project Scheduling and Control; Estimating and Managing Project Costs; Project Risk Management; and Project Quality Management.

Principles of Professional Selling - Level 2
This highly interactive course guides you through the entire sales process and incorporates the most modern sales methods today - consultative/solutions selling! You'll return to work better equipped to develop presentations that meet your clients' real needs. Create a specific sales plan to achieve your sales goals, influence the right buyers, anticipate any objections and close the sale with ease.

Negotiate to Win
This hands-on seminar gives you a step-by-step guide to effective negotiation - from establishing a formal planning process to prioritizing issues. From mastering persuasion techniques to identifying the communication styles of effective negotiators. From breaking deadlocks to negotiating as part of a team. All managers, salespeople and top-level dealmakers responsible for negotiating the best possible terms of an agreement for their company should attend this seminar.

Fundamental Selling Techniques
Like most people, you'll come to this seminar with very little knowledge of selling, except perhaps what you've experienced as a customer. After just two days of hands-on practice, you'll gain the skills, confidence and professionalism to sell your product or service successfully. This seminar is a roadmap that takes you step by step through the entire sales process. It covers every critical phase of selling and gives you the enhanced listening and prospecting skills you need to succeed as a professional salesperson today.
Professionals Turn demanding buyers into lifelong customers. Learn all the "insider" tricks of the trade necessary to make a powerful and persuasive presentation - one that considers your client's needs, communicates in his or her language, involves the prospect and communicates solutions. Your in-class presentation will be videotaped for playback and review. The videotape is yours to keep.

$1,595.00
XDM 0639
Fundamentals of Sales Management
Gain a foundation of critical-to-success management skills. Learn proven communication techniques and interviewing tools that ensure the most appropriate salesperson is hired. Also learn to establish an effective training program and learn a six-step coaching process that helps you maximize each sales team member's potential.

$1,695.00
XDM 0640
Advanced Sales Management: Level 2
This advanced program shows you how to keep pace with all the issues that are revolutionizing sales force management. It's the seminar to choose if you want to become a more effective manager - and advance further, faster, in your career. You'll discover the "can't fail" techniques that have already benefited thousands of your colleagues. You will learn how to achieve peak performance in every area indispensable to sales management success.

$1,795.00
XDM 0641
Coaching: A Strategic Tool for Effective Leadership
This seminar gives you a variety of coaching tools, techniques and best practices - from analyzing the cause of subpar performance to creating a climate for effective coaching and learning, from giving corrective feedback to handling difficult responses to coaching. You'll leave this seminar more aware of your personal habits, styles and preferences in coaching situations through assessment, role-playing and exercises.

$1,695.00
XDM 0642
Time Management: Take Control of Your Time
If you're doing more and enjoying it less, it's time to get out of the time trap and back to productive management. This seminar gives you practical techniques for controlling time and making it a manageable resource. Also included are tips on coping with voice mail and e-mail. Business professionals who want greater control of their time, management style and life should enroll today.

$1,395.00
XDM 0643
Accounting Fundamentals II
While it is true that accounting professionals are scarce, those with corporate accounting experience are even more rare. This course will build on the knowledge you gained in our Accounting Fundamentals course to provide you with a solid understanding of corporate accounting practices. You'll be able to analyze transactions and prepare various corporate financial reports. You'll also gain practical experience working with dividends, plant assets, depreciation, accrued revenue and expenses, retained earnings, stockholders' equity, and more.
Managing Multiple Priorities - Personal Effectiveness Training

You're constantly faced with too many deadlines and too many projects, all of which have top priority. Then, just when you think things are going smoothly, a crisis erupts, priorities change and the scramble is on. You have to return calls, manage email, attend meetings, prepare reports, plus handle all the other interruptions that are part of your day. If any of this sounds familiar, then this workshop is designed for you the busy professional who juggles deadlines, projects and multiple demands, the person with no time to waste! Take this session and become more personally and professionally productive than ever before.

Successful Assertiveness

A description is not available for this course.

Business is a Contact Sport

Think about it. We all know someone who can walk into a room full of strangers and work it. Why is it that some people seem to connect with ease and others don't? The truth is that you don't need to be a naturally gregarious person to immediately connect in business. Join us for this fast-paced session and learn the three key steps for creating an instant connection with your business colleagues. Topics covered include how to quickly establish trust and power, meeting and greeting with ease, getting in sync and get them talking and keep them talking.

Get the Whole Picture: Asking Probing Questions in a Behavioral-Based Interview

Participants in this class will learn to become more verbally disciplined during interviews and apply behavior-based probes to an informational style interview. You will learn to create probes "on the fly" while avoiding common 'distracters'.

Make the Most of Generational Differences

Overcome the generational obstacles and find out the advantages that different generations offer in the workplace. Progressive organizations have found out that the blend of generations is an asset when each generations' strengths are leveraged for maximum advantage. This dynamic and highly-interactive seminar will provide attendees with specific information on how to improve the workplace and productivity.

Management vs. Leadership

This course will look at management vs. leadership and the components of each. A model will be utilized which gives managers/leaders a tool which will help them identify specific actions they can take in developing direct reports. The Parker Team Player Survey and the Life Styles Inventory assessments are also used.
$199.00
XDM 0652
Administrative Assistant Applications
Gain the skills and knowledge you will need to prepare for the Certified Administrative Professional exam and begin a rewarding career as an administrative assistant. Discover how economics, accounting, business law, organizational behavior, and management affect administrative assistant responsibilities and activities.

$109.00
XDM 0653
Mastery of Business Fundamentals
Are you interested in acquiring practical business experience in strategic planning, management, and finance without enrolling in an MBA program? You will understand the significance of strategic planning and discover how external and internal environmental factors affect an organization. You will learn about various organizational structures and determine how to use leadership, motivation, and control for maximum impact. You will master the fundamentals of accounting and increase your knowledge about key financial terms, cash flow management, financial statements, and cost control. You will also discover various financial investment models and learn the basics of financial planning and budgeting methods.

$109.00
XDM 0654
Mastery of Business Applications
Understand how marketing differs from sales, how the marketing concept helps a firm succeed, and why consumer behavior is such a challenging topic. Increase your knowledge of the basics of international business and learn about the various options and requirements for success. Discover the nature of information technology and realize how operations management helps increase efficiency and effectiveness. Learn the definition of quality, discover the nature of Six Sigma and total quality management (TQM), and find out how to implement a quality culture. Understand the nature of project management and learn about the different phases of the project life cycle.

$109.00
XDM 0655
Introduction to Business Analysis
Give yourself an employment advantage by developing analytical skills that are consistently in high demand. This course will teach you powerful quantitative methods that will have you making better, more informed, and more effective business decisions. The days of making critical business decisions by instinct or coin toss are long gone. If you are planning a career in business, you cannot afford to miss this course!

$109.00
XDM 0656
Business and Marketing Writing
This fun course will teach you to write or identify copy that achieves business and marketing goals. Improve your work, your knowledge, your company’s image, and your chances of getting hired, promoted or applauded! Designed for business writers, marketers and anyone interested in these exciting fields.

$109.00
XDM 0657
Professional Sales Skills
Today, there are no shortages of opportunities for skilled salespeople. In good times or bad, companies never stop looking for sales representatives that can help them meet their financial goals. If you have always dreamed of becoming successful in sales, this course is exactly what you need. You will learn how to turn prospects into buyers, how to provide proper customer service, how to develop a sales plan, and more!

$109.00
XDM 0658

Effective Selling
Discover how you can easily convert a potential customer into a long term asset. This course will help you lay the groundwork for repeat business and your future success. In sales, there are no quick fixes. However, with the knowledge, planning skills, communication techniques, and the understanding of human nature that you will gain from this course, your sales will grow.

$109.00
XDM 0659

Hire Smart
The ultimate success of your business depends almost entirely on your ability to find the right people to accomplish your business objectives. This course will provide you with useful techniques that you can put to immediate use to hire the best people for your organization. Under the guidance of a patient and experienced expert in human resources, you will gain practical, hands-on knowledge of a powerful methodology for recruitment and retention.

$109.00
XDM 0660

Accounting Career Certificate Program
As the number of business establishments increases, more accounting professionals are needed to set up their books, prepare their taxes, and provide management advice. To ensure you gain the breadth of knowledge you’ll need to succeed, this program covers accounting in depth as well as related business and industry subjects such as management and basic computer operations and applications. A Career Certificate in Accounting will show future employers that you’re well trained in financial, managerial, and cost accounting; mathematics for business and finance; and financial management.

$999.00
XDM 9999

Future Day Video Conference
A description is not available for this course.

$199.00

Massage Therapy (XNM)
XNM 4005

Chronic Illness Intervention
A description is not available for this course.

$36.00
XNM 5000

Bodywork I
This training module will introduce you to the theory and practice of bodywork. The history, philosophy, art, techniques and experience of Swedish Massage will be presented. You will be taught the five basic Swedish Massage techniques (vibration, friction, effleurage, tapotement, and petrissage) and how to combine them into a full-body massage. Other topics will include review of anatomy and body structures, benefits, contraindications, breathing and grounding skills, practitioner self-care, use of oils and draping techniques. (64 hours)

$704.00
XNM 5001
Anatomy and Physiology Exam
A description is not available for this course.

$100.00
XNM 5002
Anatomy & Physiology Exam
A description is not available for this course.

$125.00
XNM 5003
Orientation
A description is not available for this course.

$199.00
XNM 5004
Human Anatomy & Physiology
Human Anatomy & Physiology This course teaches human structures and their functions. Students will learn how various structures relate to organ systems. Focus is on anatomical features as they relate to the field of massage therapy. (25 sessions)

$1,100.00
XNM 5005
Advanced Standing Communicable Diseases
A description is not available for this course.

$0.00
XNM 5006
Bodywork
A description is not available for this course.

$300.00
XNM 5010
Kinesiology
Kinesiology is the study of movement as it relates to the human body. This course will include an intense review of muscular-skeletal anatomy, and elements of physics, geometry, and physiology. The curriculum is designed to provide instruction in Kinesiology as it pertains to therapeutic massage, and as students you will practice palpation and assessment of body motion with the intent of being able to apply appropriate body work. (40 hours)

$572.00
XNM 5011
Credit by Exam/Kinesiology
A description is not available for this course.

$220.00
XNM 5020
First Aid and CPR
Adult CPR and Basic First Aid are taught in this lecture and hands-on training. Airway obstruction, basic life support, wounds, bleeding, injuries, sudden illness and dressings are a few of the topics discussed.

$77.00
XNM 5021
First Aid/CPR Recertification
This reaffirmation course is open to adults who are currently certified and who wish to obtain recertification. Material covered includes assessment of victim, what to do in case of bleeding, shock, poisoning, thermal or heat burns, hypothermia, stroke, fracture management, and other medical emergencies.

$39.00
XNM 5030
Communicable Diseases
This course, designed for JCCC's Therapeutic Massage Certification program, explains infection control and why it is necessary. Topics include identification of common communicable diseases; high risk behaviors; how infection is spread; and how to reduce the risk of such diseases.

$33.00
XNM 5040
Bodywork II
This is the second class in fulfilling the certification requirements. It is the continuation of the therapeutic massage techniques, with emphasis on integration of the parts into a full body massage. New strokes will be introduced for a broader and deeper application to the muscles. Time will also be spent on how to lengthen and shorten individual and muscle groups, as well as continued muscle locations. (72 hours) Prerequisite: Introduction to Bodywork

$792.00
XNM 5041
Sports Massage
A description is not available for this course.

$115.00
XNM 5050
Pathology
This course is an in-depth study of pathology that discusses disease processes and altered functions affecting the human body. It will emphasize indications and contraindications for therapeutic massage. The students will learn how a massage therapist needs to adapt their technique to meet specific conditions.

$572.00
XNM 5060
Hydrotherapy
This course will provide instruction on the use of water as a therapeutic tool in conjunction with massage therapy, including body temperature regulation and the physiology of heat and cold, using techniques such as herbal body wraps, shower modalities, and hand and foot baths. The student focuses on the application of water and associated modalities in treating diverse human disorders. The course content broadens the student knowledge so that he/she can provide a much more diverse approach to his/her individual art of therapeutic massage and bodywork. (15 hours)

$325.00
XNM 5070

Clinical Bodywork Module III
This is the third class in fulfilling the certification requirements. It is the continuation of deeper tissue work with an introduction to myofascial release techniques and trigger points. You will learn the integration of all techniques in dealing with specific injuries. Prerequisite: Clinical Bodywork Module II. (64 hours)

$726.00
XNM 5075

Professional Business Practices I
This is a foundation course for establishing and maintaining a successful professional massage practice. Topics discussed: ethical and professional issues; documentation of massage sessions using medical terminology; maintaining a safe and nurturing work environment; meaning of professionalism in a massage practice.

$132.00
XNM 5080

Professional Business Practices II
This course will take students through a series of exercises designed to stimulate their awareness of the setting up of business fundamentals. Applied learning skills will be used on some of these topics: public speaking, conceptual planning, mastering marketing tools. Prerequisite: Business Practices I (40 hours)

$374.00
XNM 5090

Bodywork Clinics
A supervised student clinic will be held in the second and third modules so students get first hand experience in client in-take and build self-confidence through massage practice. Time for individual student processing of their clinic experience will be emphasized. Student liability insurance is included in your student fees.

$200.00
XNM 5091

Bodywork II Clinic
A description is not available for this course.

$275.00
XNM 5092

Bodywork III Clinic
A description is not available for this course.
$275.00
XNM 5500
Advanced Standing Pathology
Credit by Examination

$275.00
XNM 6000
Back Stack Workshop
The Back Stack Workshop is designed for massage practitioners needing CEU's and additional knowledge. This hands-on learning will focus on locating pain in back stack, reducing pain in back stack, working with headaches, providing low back comfort and opening shoulder girdle. Pending approval for NCBTMB CEU'S.

$85.00
XNM 6001
Body Mechanics
This CEU course is designed to enlighten you on the benefits of practicing proper body mechanics while administering massage therapy on your clientele. Other topics will include self-care, injury protection and stress management.

$95.00
XNM 6002
Introduction to Craniosacral Balancing
Craniosacral therapy is a gentle healing art which uses soft touch to facilitate sound physical, mental and emotional changes in the client. This CEU course will introduce this therapy and the beginning evaluation and treatment of the craniosacral system.

$95.00
XNM 6003
Touch Technique
This CEU course is designed to integrate all parts of your body to enhance skills and depth of work. You will learn pressure, speed, range, depth, stillness, movement and intuition of touch.

$95.00
XNM 6004
Sports Massage
Massage therapists may attend this training to be certified in KS and MO as Sports Massage practitioners. Lecture and practice will be taught on the following topics: event massage theory and skills, proper techniques, physiology of injury and healing process, trigger point, neuromuscular, and myofascial skills.

$225.00
XNM 6005
Ethics of Massage
Students will learn ethics and standards of practice for massage therapy. Topics include industry standards, laws, morals, rules and regulations. Role playing exercises and example scenarios will be utilized. This six hour course fulfills the ethics portion of NCBTMB recertification. RN, PTs, and licensed massage therapists will earn 6 contact hours of continuing education.

$90.00
XNM 6006

Nutrition for the Real World
Let a nutritional consultant explain macronutrients: water, carbohydrates, proteins and lipids (fats and oils). Micronutrients are vitamins and minerals. To be discussed: healthy digestion, terminology, and references.

$95.00

XNM 6007

Introduction to Work with Human Energy Field

$150.00

XNM 6008

Acupressure and Soft Tissue Manipulation
This course is intended to address neuromuscular and myofascial dysfunction with a unique blend of acupressure and many of the popular soft tissue manipulation techniques. There will be a brief overview of the fourteen main Chinese meridians and acupoints. Some of the soft tissue manipulative techniques include myofascial release, neuromuscular technique, and positional therapy.

$120.00

XNM 6009

Advanced Reflexology
A description is not available for this course.

$139.00

XNM 6010

National Massage Certification Test Review
This class covers material which will help prepare students sitting for the national certification exam.

$129.00

XNM 6011

Sacred Art of Massage
Designed for the massage therapy practitioner or energy worker who is looking to explore a deeper consciousness of their truth and vision for themselves and for their professional practice, allowing then for creativity and change through appreciation for their wholeness as well as the wholeness of their client. (2 sessions)

$149.00

XNM 6012

Advanced Esalen
This interactive course will practice and review the principles of Esalen massage. Students will explore new stretches and rotations, many of them inspired by Thai massage. Our goals are to increase your confidence and expand your repertoire of options when giving a massage. Participants should have previous Esalen massage training. Licensed massage therapists will earn 15 contact hours of continuing education.

$225.00
XNM 6013
Advanced Aromatherapy
A description is not available for this course.

$139.00

XNM 6014
Stress Prevention Now
A description is not available for this course.

$0.00

XNM 6015
Reflexaology
A description is not available for this course.

$120.00

XNM 6020
Ancient Thai Massage
In this course, students will learn history and philosophy of ancient Thai massage, location of 10 main Sen lines, 4 positions of ancient Thai massage, 6 points of Nuad Bo-Ran, and proper techniques and postures to perform a one-hour Thai massage.

$225.00

XNM 6025
Seated Chair Massage
In this class, students will learn a basic routine for chair massage, fundamental concepts for proper body mechanics, and important concepts for marketing seated chair massage.

$180.00

XNM 6030
Pregnancy Massage
This course is designed to train participants in methods of Pregnancy/Postpartum Massage. Topics include anatomy and physiology, complications, and benefits. You will also learn massage techniques, labor support, relaxation and aromatherapy. Bring body support cushions or 6-8 pillows and massage lotion. Licensed massage therapists will earn 16 contact hours of continuing education.

$240.00

XNM 6035
Reiki I and II
Reiki is an ancient, gentle and spiritual healing technique, focusing on understanding the energy system. Students will learn to use hand positions, symbols and techniques to help balance energy functions of the body. This class uses lecture, discussion, demonstrations and hands-on practice. Licensed massage therapists will earn 16 contact hours of continuing education.

$240.00

XNM 6060
Watsu
A description is not available for this course.
Money Management (XPM)

XPM 1000

Basic Investments
Have you ever wished that someone would explain how investments work in such a way that anyone could understand? This class is for the novice investor who needs finance explained on a basic level. Try it, you'll like it!

$40.00

XPM 1001

Advanced Investments for Women
This two session class is being offered for investors who are already acquainted with the basics. The course will discuss how to evaluate a stock, mutual fund and bonds, diversify your portfolio to help minimize risk, understand what drives stock market prices and much more! Bring a calculator to class.

$21.00

XPM 1007

How to Choose a Financial Planner
Will your financial consultant be a true advisor or salesperson in disguise? Are they offering unbiased advice for your benefit and not their own? Learn the facts about the financial planning industry and how to find qualified financial counsel.

$15.00

XPM 1020

Common Stock Analysis, Part I
Learn the basics of stock analysis. This course will review the many variables that should be considered in making stock selections. You should be a beginning investor with a basic knowledge of stock market terminology.

$25.00

XPM 1026

Rollovers 101
This course will explain everything you need to consider when rolling over your retirement plan. We'll also cover how to avoid the 20 percent withholding tax. Nearly 20 years of instructor experience will make it easy to understand and apply.

$20.00

XPM 1030

Common Stock Analysis, Part II
This course will teach you how to use fundamental and technical analysis to evaluate stocks as well as how to set sell objectives and manage a stock portfolio. Option strategies will be discussed, including how to use options with stocks to reduce risk and enhance returns.

$35.00

XPM 1047

Long Term Care Insurance: How to Protect Your Wealth and Dignity
The single greatest threat to your retirement security is the potential burden of long term care costs. This course teaches the basics of long term care insurance
and how to protect your assets and independence.

$15.00
XPM 1076
"ABCs" of Financial Planning and Investing
Topics include: starting an investment plan. Cut fees and expenses make IRA's and 401-K's work better. Learn what type of insurance to use if any? Strategies for retirement and college funding plus the best kept "secret" investing - index funds.

$15.00
XPM 1110
Understanding Mutual Funds
Do you have mutual funds and IRA accounts but have an uneasy feeling exactly what are they? This class will review what a mutual fund is, how it functions, how to find good quality funds, and why many investors choose them for their IRA accounts.

$15.00
XPM 1115
Debt-Free Living - Invest in Your Debt
Learn how to eliminate all of your debts, even your mortgage. Bring to class a calculator and a list of your current debts with minimum monthly payments (principal and interest only on mortgages). Fee includes a workbook. An optional textbook and software will be available from the instructor.

$20.00
XPM 1116
Spend Smart
Discover proven ways to save on insurance, groceries, automobiles, utilities, interest and more. You will also develop your own personalized plan. Bring a calculator to class. Fee includes materials, an optional textbook available from instructor.

$20.00
XPM 1119
A Guide to Navigating Retirement
Now that you are retired, how should you create an income stream from your investments. This class helps develop that plan for a successful retirement. A workbook can be purchased from the instructor.

$21.00
XPM 1121
A Woman's Guide to Financial Freedom
A two-hour class and take-home workbook designed to enable women to set financial goals, know their investments and protect their assets.

$21.00
XPM 1145
Financial Strategies for Successful Retirement
In four exciting sessions, this course introduces key concepts and practices of wise money management for retirement. Participants will learn what they need to know to secure a successful retirement for themselves and their spouse. The fee
is $70 for couples and $50 for singles. Note: Only one person needs to register for couple’s class.

$70.00
XPM 1146
Singles Successful Retirement Concepts
In four exciting sessions, this course introduces key concepts and practices of wise money management for retirement. Participants will learn what they need to know in order to secure a successful retirement for themselves. The fee includes a $30 workbook.

$50.00
XPM 1185
Common 401K Mistakes
Don't make costly mistakes in your 401(k) plan that can result in losing thousands of dollars! Failure to invest properly in your 401(k) plan can delay your retirement for years. You will learn various aspects of a 401(k) plan that many people are not familiar with. We will discuss mistakes many participants make and how to avoid them.

$15.00
XPM 5000
Introduction to Stock Options
This course will teach you how to protect your portfolio and profit in a down market, an up market, or even a flat market. Learn to leverage your investment dollars for potential profits that surpass those possible with stocks.

$82.00
XPM 5005
Personal Finance
Learn to create and use a budget, borrow and invest wisely, understand and control your credit rating, make intelligent decisions about insurance, develop a retirement savings plan, and be better prepared to plan for taxes.

$82.00
XPM 5006
Where Does All My Money Go?
Find out where your money goes. Make your own choices about where you want it to go. Start to tackle your debt. Learn how to fund your dreams and stop worrying about money.

$82.00
XPM 5007
Building Wealth
Most people don't achieve true wealth through luck or an accident of fate. Being organized, disciplined and having a firm knowledge of how to proceed is the way to building your wealth. This course will supply you with the skills you need to succeed.

$82.00
XPM 5008
Debt Elimination Techniques that Work
This course will teach you a specific and workable strategy that will get you out of
all debt including your mortgage in the shortest possible time. You will be pointed down a new path concerning spending, saving and handling money that will keep you out of debt forever.

$82.00
XPM 5010
Start and Operate Your Own Home-Based Business
Home-based businesses are the hottest business trend of the decade. Learn how to be your own boss and eliminate the stress of having a job. The benefits of working from home are endless. This class is a great way to find out how to start your own business or enhance the one you already have.

$82.00
XPM 5011
Real Estate Investing
You will explore how to find, finances and negotiate a deal, how to invest in lease options, foreclosures, quick flips, rehabs and mobile homes.

$82.00

Music, Gemology (XKA)

XKA 1018
Wind Ensemble
Join the college wind ensemble and explore music specifically written for wind ensembles (concert bands.) The music will include overtures, marches, polkas, circus band music, traditional concert music and music written by contemporary composers. Emphasis will be on performing music written specifically for this type of instrumentation. Call Ron Stinson for audition information 913-469-8500 ext. 3275.

$25.00
XKA 1026
Beginning Piano Class for Adults
It is never too late to become a piano player. Join JCCC music professor, Victor Olvera, for a solid introduction into the world of piano playing. This class is intended to provide an introduction to the art of keyboard playing basic skills such as reading music, basic notation, keyboard techniques and basic piano repertoire will be covered. Text available in JCCC Bookstore.

$85.00
XKA 1027
Return to the Keyboard Adult Piano Class
This course is intended as a review and tune-up for adults with prior piano keyboard experience. Keyboard skills, technique and repertoire will be tailored to the individual student's skill level. Following an informal assessment you'll explore additional techniques and improvisational methods. Text available in the JCCC Bookstore

$85.00
XKA 1060
Johnson County Chorus
If you enjoy singing in a mixed chorus this is the group for you. The chorus sings a wide variety of choral literature, from master works to popular. You may interview with the director, Anita Cyrier, on January 16, between 7-9 p.m. Enrollment fees
include most music. Performances require concert dress: men will wear tuxedos; women will purchase concert dress. Full rehearsal begins January 23, from 7:30-9:30 p.m. Inquire about the select ensemble which rehearses from 6:30-7:30 p.m.

$75.00  
XKA 1100  
**Voice Clinic I**  
You will learn basic vocal technique, covering areas such as posture, breath control, vocal projection and vocal health. Students will learn how to properly vocalize and apply those techniques to songs. Individual instruction and group instruction within the class setting. The textbook, *Steps to Singing for Voice Class* (3rd edition), can be purchased at the JCCC bookstore.

$49.00  
XKA 1105  
**Voice Clinic II**  
Continued vocal training from Voice Clinic I. More opportunity for individual instruction and performance practice. Clinic I is REQUIRED prior to Clinic II without instructor's permission. The textbook, *Steps to Singing for Voice Class* (3rd edition), can be purchased at the JCCC bookstore.

$59.00  
XKA 1110  
**Basic Guitar I**  
This course will emphasize strumming patterns and basic chords used in popular music. It will also serve as an introduction to reading music, fingerpicking and music theory. No musical background is necessary. Only acoustic (nonelectric) guitars may be used in this class.

$85.00  
XKA 1131  
**Jazz Camp**  
Heat up your summer with three days and nights of great jazz. Study side-by-side with professional jazz musicians and learn the art of improvisation and listening. JCCC’s music department has recruited two of the area’s best jazz educators. Camp sessions are designed for both vocal and instrumental musicians. The sessions conclude with an informal concert. Camp will be conducted on the JCCC campus. Note: Early Bird Fee before May 1 - $25.

$25.00  
XKA 1132  
**Jazz Camp**  
Heat up your summer with three days and nights of great jazz. Study side-by-side with professional jazz musicians and learn the art of improvisation and listening. JCCC’s music department has recruited two of the area’s best jazz educators. Camp sessions are designed for both vocal and instrumental musicians. The sessions conclude with an informal concert. Camp will be conducted on the JCCC campus. Note: Fee after May 1 - $45.

$45.00  
XKA 5000  
**Enjoying European Art Online**  
The art and architecture of Europe offers an overwhelming array of choices that is sure to exhaust even the most dedicated art lover. If you are planning a trip to
Europe, or just want a better understanding of European art, this course will introduce you to the most important works of European art on a personal and familiar level. You’ll learn where to find the works, how to get the most out of the viewing experience, and you’ll receive a wealth of commentary and interesting historical information based on the instructor’s deep love of art and culture and extensive travel experiences.

$79.00
XKA 5001
Music Made Easy
If you enjoy music and would like to know more about what makes it work, this is the course for you. You’ll gain a complete understanding of rhythm, melody and harmony, and you’ll be able to recognize pitches on the musical staff and on the keyboard.

$82.00

Personal Development (XKD)

XKD 1062
Bulletproof Self-esteem
Michael Jordan and Oprah generate bulletproof confidence from primitive feeling brain centers that are not influenced by our thinking centers or the thought-based techniques used in self confidence programs. This new feeling based program helps you uncover these instinctive primordial I-can-do-anything feelings. You’ll understand the reasons for repression of instinctive confidence and will learn techniques to uncover and feel comfortable with instinctive confidence.

$14.00
XKD 1066
Connections
This weekly social skills course is designed for 18-25 year old students with mild-moderate needs. The weekly instructional session emphasizes social skills practice, social interaction, and how to plan, organize and access community activities. Various topics related to self-awareness, developing relationships and pursuing a social life are discussed. Role-playing, open forums, speakers, and small group interaction keep students engaged. In addition, students attend a group-planned social activity in the community called "Community Connections," twice a month. Selected college students will function as peer models to help facilitate the course. For "Connections" application form, call 913-469-3837. The course is limited to 28 students with special needs.

$175.00
XKD 1067
Organizing Residential
We interact with clutter daily. How we interact with clutter is the key to an efficient productive life. This class will help you identify the roadblocks to getting organized and how you can combat them. You’ll discover the 1-2-3 approach to organizing and how to apply it to any room in your home.

$12.00
XKD 1074
Understanding Self-Esteem
What is self-esteem? Where do we look for it. How can we increase it? These three questions will form the basis for this two-hour session. Our self-esteem directly affects the extent to which we are satisfied with our relationships - both with others and with ourselves. Take time out to reintroduce yourself to your best
friend - YOU!

$12.00

XKD 1080

What's Happening in Greater Kansas City for Singles?
This class is for singles who want to know about singles groups, events and activities taking place in Kansas City. The course is presented by Don Davidson, publisher Guide to Singles Groups in the Kansas City Area. Enrollees will receive a copy of the directory. The fee includes the cost of the directory and other materials.

$13.00

XKD 1082

101 Fun and Clever Ways to Get Noticed
The first step in starting a relationship with someone of the opposite sex is getting noticed. This workshop will discuss fun and clever ways to get the attention of those you wish to meet. The material is presented by Don Davidson, singles leader and author. Come and have fun meeting others and contributing your own clever ways of getting noticed. The fee includes handout materials.

$13.00

XKD 1084

Unleash Your Potential and Get Motivated
Most of us have ideas of things we want to do that never get accomplished. We believe if we could just get motivated we could accomplish all that we desire. This workshop will provide a practical model for becoming self-motivated. The model will give you tools to move forward from good ideas to seeing concrete results in your life. Learn why logic and guilty feelings are not enough to motivate you to action. You will have the opportunity to identify barriers to achieving your heart’s desire, and will learn strategies to move through these barriers toward success.

$12.00

XKD 1085

What You See Is What You Get
This course looks at what we pay attention to during our day, and how what we notice affects our self-esteem and our sense of happiness. Through lecture and personal exploration exercises, participants will gain an understanding of how their thoughts and feelings impact them. We will explore how a “good day” is created and how “bad” days happen. Participants will also learn what they can begin doing immediately to achieve a greater sense of contentment and control in their lives.

$12.00

XKD 1087

Successful Paper Management
Papers flood our home daily and originate from many sources. Learn how to manage your personal papers effectively by identifying roadblocks to organizing paperwork and discover how simple setting up a user-friendly paper management and filing system can be. Bring to class some recent (or that day’s) mail to get a “hands-on” experience.

$12.00

XKD 1089

Asserting Yourself
Are you ever hesitant to speak up for what you want or need? This class stresses
self-management by learning to use assertiveness skills as a way to promote personal growth and fulfillment. Therapist Donna Bacic will help you develop a "personal assertiveness" tool kit through lecture, role play, exercises and sharing.

$15.00
XKD 1135

5 Love Languages of Marriage
Using the book with the same title by Gary Chapman, discover the 5 love languages and where you and your spouse fit into them. An evening of great discovery that can change and strengthen your marriage. Come alone or with your spouse.

$12.00
XKD 1138

Master of Your Own Reality? Take Action to Consciously Create Your Life!
Many of us believe we have no control over our lives; that we are even victims of life. Discover how thoughts, words and emotions trap us in a box of limitations. Take back your power. Learn how to master the steps of consciously creating the life you always wanted to live. Materials fee, $3.00, will be paid directly to instructor.

$12.00
XKD 1141

Changing Your Past: Open Doors to a Reality with Limitless Potential!
Have you ever wanted to change your past, knowing that if you did, your future would be significantly different? The movie, What the Bleep Do We Know?, states that it is possible to change the past. Many indigenous peoples have known how to do this for millennia. Learn how to use an ancient technique called Erase Personal History. Open doors to a future you’ve only dreamt about.

$19.00
XKD 1142

Love Busters
Based on the book from the same title (authored by Willared Harvey), this class will take a look at the "love busters" that can destroy a marriage and how to overcome the destruction they can cause individuals and a couple. The "love busters" are: Selfish demands, disrespectful judgments, angry outburst, dishonesty, annoying habits, and independent behavior. A great class for people who want to make their relationships better whether they are married or in a relationship considering marriage, people wanting to learn how to avoid "love busters" before they hit their relationship, and/or those dealing with rebuilding a relationship after "love busters" have already hit their lives.

$12.00
XKD 1143

Top 10 Ways to Keep Your Marriage Going in the Right Direction
Do you ever feel like your marriage/relationship is stagnant? The things that made it feel so "right" in the beginning might now be buried in daily living, annoying habits, busy schedules, and personal changes. This class will take a look at simple things that make a huge difference in opening communication, enhance passion, and put a "fresh" feel back into the relationship. Participants can be married or unmarried; only requirement is that participants are looking to renew their relationship energy in a fun, unintimidating setting. Come alone or as a couple.

$12.00
XKD 1144
**Stressed-Working Too Hard-Can't Let Things Go**
Learn a simple revolutionary new approach to stop over-active brain systems from relentlessly demanding that you succeed, resolve problems, or save the world. When you halt these relentless, destructive, self-driving systems, your normal, healthy motivation systems will ignite an enthusiasm that will sweep you to success.

$12.00

XKD 1146
**Effective Decision Making for a Happier Life**
Happiness and success do not simply "happen". They are the result of making sound decisions. We will apply The Effective Decision Making Model to our own dilemmas and difficult decisions.

$15.00

XKD 1156
**Being Smart About People**
Are you as smart about people as you want to be? Are there people situations that you would like to understand and handle better? Emotional intelligence enables you to have a positive effect on the people and situations around you. This course will present the emotional intelligence model and the key competencies that every person needs to thrive in a changing world, maintain smooth working relationships, and be a good parent, spouse and family member. Participants will learn how they score on emotional intelligence through an in-class survey.

$15.00

XKD 1179
**Get Your Child Organized**
Come and learn how to get your child and their room organized. Learn what toys and books to keep and which ones to toss! Learn an easy chart system to keep them organized.

$15.00

XKD 5001
**Keys to Effective Communication**
If you find yourself at a loss for words or lack confidence in your communication abilities, you'll appreciate this course. With the help of a patient instructor and a supportive community of your fellow students, you'll work step-by-step through the process of becoming a great conversationalist. You'll learn to use communication to build rapport and create environments of trust, warmth and respect.

$82.00

XKD 5002
**Goodbye to Shy**
Become more confident in social, professional and romantic situations. This engaging course will help you learn how to reduce anxiety, build self-esteem, strike up conversations with others, win friends and act confidently in romantic relationships.

$82.00

XKD 5003
**Get Funny**
Learn how to use humor to speak more effectively, write better and increase your popularity. Use your newfound sense of humor to entertain your friends, meet interesting people and even make new friends!

$82.00
XKD 5004
Get Assertive!
Are you tired of being intimidated and treated badly by others? Discover how you lose power when you talk and how to gain it back. Find out the secrets to defusing anger and avoiding criticism. Gain the skills to be assertive with family members, friends, bosses, co-workers, professionals and clerks. It's your turn to speak out!

$82.00

Photography (XKP)
XKP 1000
Introduction to Camera
Basic camera handling and operation are explained in this non-darkroom course. Camera accessories, film choice and picture composition will also be discussed. There will be photo assignments. Bring your fully adjustable 35mm single lens reflex camera to class.

$65.00
XKP 1002
Introduction to Camera II
This class is a continuation of Introduction to Camera. The student will explore more in-depth topics that are of concern to them. There will be assignments and critiques. This will still remain a non-darkroom course. An optional field trip will be offered though attendance will not be mandatory. Prerequisite: Introduction to Camera or by permission of the instructor.

$65.00
XKP 1020
Creative Photography
If you're looking for inspiration, come to this course. There will be photo assignments and critiques, along with discussions on a variety of topics. Registration limited to intermediate and advanced amateurs. Class meets every other week.

$92.00
XKP 1022
Introduction to Photo Impressionism
Explore creating images that delve into the realm of impressionism. Learn techniques for turning the ordinary into the extraordinary-creating swirls, zooms, multiple exposures and montages! Participants need a 35 mm SLR or DSLR and must be confident using it in "manual". For intermediate and advanced photographers. Class meets every other week.

$55.00
XKP 1060
Basic Scenic and Nature Photography
This class is designed to give amateur photographers some helpful tips for improving scenic and nature photography. Topics include exposure, depth of field,
simple close-up techniques and helpful equipment. Wildlife photography also will be discussed.

$30.00  
XKP 1064  
**Going Digital**  
Learn about the world of digital photography. Topics will include: digital vs. film, digital workflow, white balance, different kinds of digital cameras, composition and using various shooting modes.

$25.00  
XKP 1066  
**Advanced Scenic and Nature Photography**  
Advanced concepts in composition, construction of the landscape photograph, and mastering a series of challenging photo situations will be covered in this course. The class will include both film and digital capture approaches to scenic and nature photography. Basic photographic knowledge or completion of Basic Scenic and Nature Photography course is required.

$29.00  
XKP 5000  
**Discover Digital Photography**  
Join us and explore the world of digital photography. This course provides an introduction to the fascinating technology that is catapulting the photographic world into the 21st century. We'll discuss the basics of digital photography, equipment, software, the digital darkroom, printing, Internet and e-mail use, along with commercial and personal applications. You'll learn what you need, what you can do, and what you can expect to invest.

$82.00  
XKP 5001  
**Photographing People with Your Digital Camera**  
Photographing people can be fun, exciting - and complicated! This course will make taking beautiful pictures of adults, children, and babies simple. After a review of the basics, you'll discover the best way to shoot faces, repair common problems, and take professional portrait and formal group shots.

$82.00  
XKP 5002  
**Photoshop Elements for the Digital Photographer**  
Bring out the best in your images! Adobe's Photoshop Elements provides the tools for quick fixes and detailed enhancement of any digital photograph. Discover the basics of this award-winning package specifically designed for photo enthusiasts. Designed for those with no image-editing experience, this class will take you from novice to accomplished user.

$82.00  
XKP 5004  
**Photoshop 7 for the Absolute Beginner**  
This course will teach you how to use Photoshop with detailed, step-by-step instructions even if you've never used a computer for graphics before! You'll learn how to create simple digital paintings, edit your own photographs to remove red-eye, dust, scratches and correct image exposure.
XKP 5005
Secrets of Better Photography
Designed for both film and digital photographers, this course is filled with tips and tricks to help you take better photographs. You’ll learn the basic technology that all cameras use, and you’ll receive helpful information on exposure and lighting.

$82.00

XKP 5008
Digital Photography Output!
Get more from your digital camera by learning how to edit and crop out unwanted portions of your photos, resize them, adjust their colors, add special effects, print at the highest possible quality, e-mail digital photos to friends and family and use them to create cards or electronic photo albums.

$82.00

XKP 5009
Photoshop Elements 3.0 for the Digital Photographer
Bring out the best in your images! Adobe's Photoshop Elements provides the tools for quick fixes and detailed enhancement of any digital photograph. Discover the basics of this award-winning package specifically designed for photo enthusiasts. Designed for those with no image-editing experience, this class will take you from novice to accomplished user.

$82.00

XKP 5010
Photoshop CS2 for the Digital Photographer
Unleash the full potential of Photoshop CS2 to edit and enhance your digital photographs. Adobe Photoshop CS2 is a high-end software solution that provides support and specialized editing tools for digital photographers and graphic artists.

$82.00

XKP 5012
Photoshop Elements 4.0 for the Digital Photographer
Bring out the best in your images! Adobe's Photoshop Elements 4.0 provides the tools for quick fixes and detailed enhancement. Discover the features of this award-winning package specifically designed for photo enthusiasts. This class will take you from novice to accomplished user.

$82.00

Practical Know-how (XPR)

XPR 1005
Furnace Tune-up and Maintenance
Would you like to tune and maintain your own furnace, but lack the know-how? Then come to this class, where you’ll acquire both the skill and the confidence to do it yourself! You’ll also learn how humidifiers and thermocouples operate, how to install them, and how to oil and clean blower motors. Digital thermostats and safety controls will also be covered. BG(B&G $21)

$25.00

XPR 1020
Home Plumbing
For do-it-yourselfers, this is a basic course on repairs, maintenance, installation repairs, installation of home plumbing systems, garbage disposals, commodes, broken pipes and hot water tanks. The recommended text is available at the JCCC Bookstore.

$40.00  
XPR 1022  
**Patents, Trademarks and Copyrights**  
This class will give you a basic understanding of what is patentable, what can be trademarked, and when to obtain a copyright. A patent attorney will instruct the class.

$6.00  
XPR 1030  
**Home Wiring and Electrical Repairs**  
Hands-on sessions for wire stripping, repairs, installing replacement switches and receptacles. In-depth discussions for lighting upgrades in kitchens, bathrooms and outdoor security lights. Learn the basics for p

$40.00  
XPR 1045  
**Residential Air Conditioning Maintenance**  
Save money and keep your home air conditioner in tip-top condition. Through lecture, handouts, and hands-on practice in the college HVAC lab you'll learn how to dismantle, clean, and reinstall the condenser, lubricate the motor, test and troubleshoot the operating system, and check air flow in the duct system. Finally, the instructor will provide you with a check list of safety precautions.

$30.00  
XPR 1046  
**Residential Heating System Maintenance**  
Save money and keep your home's residential heating in prime working condition. Learn how your furnace operates, learn how to clean your furnace, remove basic components, and make proper adjustments. Instructor will familiarize you with cleaning and replacing pilot, checking and adjusting main burner and blower motor, belt tension, and checking the clock meter and flue.

$30.00  
XPR 1062  
**How to Buy a Car (and Feel Good About It!)**  
Learn how the car business works, with an emphasis on buying techniques to save you time and money. This class explores all aspects of the business and sales process; how a dealership works, negotiating the deal, handling your trade-in, car pricing, financing, insurance, leasing, rebates and after-market sales. If you're shopping for a car, or anticipating doing so, come hear independent auto broker Bill Lucas tell it like it is!

$8.00  
XPR 1106  
**Basic Self-Defense**  
You will learn the most simple and basic self-defense techniques and moves that are easy to learn: body positioning, blocking, hand strikes, kneeing and kicking. By practicing these moves in repetition during class, you will develop better confidence and awareness while learning self-protection techniques.
$45.00
XPR 1115
55 Alive Mature Driving
This eight-hour classroom course will refine your existing driving skills and help you develop safe, defensive driving techniques. Course assistance is provided by AARP.

$10.00
XPR 1120
Defensive Driving
This course was developed to create better driving techniques through systematic, standardized training. The course consists of classroom training in driving skills that help prevent traffic accidents. The films/videos used have been filmed throughout the country. New driving issues are addressed, including airbags, anti-lock brake systems, safety belts and more. Course assistance is provided by the Safety and Health Council of Kansas and fulfills the requirements for insurance discounts for the state of Kansas. Must have a valid learner’s permit or driver’s license to take the class.

$27.00

Professional Education (XNX)

XNX 0555
Perspective and Marker Workshop
A description is not available for this course.

$125.00
XNX 5005
Fundamentals of Mortgage Lending
This course provides you with the basic terminology and regulations of mortgage lending and also provides information on the secondary market. You will discuss basic terminology regarding interest rate fees, job functions and how credit decisions are made. You will identify mortgage lending regulations and how they apply to the lending process.

$99.00
XNX 9029
SHRM Learning System - Human Resource Certification
This course will prepare you for the Professional in Human Resources (PHR) or Senior Professional in Human Resources (SPHR) certification exams. Course material includes content from the Human Resource Certification Institute (HRCI) regarding management practices, general employment practices, staffing, human resource development, compensation and benefits, employee and labor relations, health, safety and security. The textbooks and a CD ROM are included.

$800.00
XNX 9040
Fundamentals of Consumer Lending
This course provides you with basic knowledge about consumer credit. You will learn terminology, basic categories, credit worthiness and the application process. You will review the origin of regulations protecting consumer credit transactions and specific regulations that apply to consumer credit.

$99.00
XNX 9043

Cross-Selling Banking Products
This course provides you with the skills for cross-selling bank deposit products. You will focus on the importance of cross-selling and the steps in the process, interpreting clues to customer needs, cross-selling solutions to match needs, responding to objections and closing the sale.

$99.00

XNX 9058

Banking Today
This course gives you an orientation to the essential principles, concepts, and operations of banking and helps you understand how they function as a business and the important role they play in the economy. You do not need to have prior experience with banks or banking terminology. This course is geared towards entry-level personnel and specialists in bank marketing and HR.

$99.00

XNX 9060

Command Spanish for Bankers
Come be immersed in a comprehensive language program that will provide you with immediate access to functional language skills to help you better assist your Spanish-speaking customers. Upon completion you will be able to use Spanish to greet customers, cash checks, assist with deposits and withdrawals, change currency, verify identification, and obtain basic information. No prior knowledge of Spanish is necessary. You will receive a reference manual and accompanying CD.

$129.00

Public Events (XKE)

XKE 1012

Natural History of Kansas
Increasingly, people want an understanding of the place where they live and the ability to achieve a sense of ‘rootedness.’ In this course you’ll examine the physical and biological processes which have led to the present Kansas landscape. Physical science topics include geology, climate patterns and soil formation. Biological science topics include ecology and a survey of plants and animals of Kansas. The class will consider how the physical and biological environment relate to the role Kansas played in historical events and to present day land and resource use. Two Saturday field trips are included in this course. Enrollment is limited.

$189.00

XKE 1014

Modern Russian History
Imagine what your life would be like if the U.S. government declared democracy and capitalism failed experiments and the country dissolved. Imagine the U.S. lost its super-power status, was abandoned by its allies and defaulted on its public debt while businessmen from our former ideological enemy lived in luxury in our country lecturing us on how to rebuild the economy. Now imagine that your grandparents lived through similar social, political, and economic chaos eighty years earlier. However, their suffering was compounded by the horror of a world war, a revolution, civil war and famine. Now you have some idea of the tragedy of Russian history. Join professor Gaar and classmates for a study of the endurance and the endeavors of the Russian people.

$174.00
XKE 1015
Model Railroading-Building the Scene
This class will focus on building scenes for model railroads, military dioramas and/or architectural dioramas. This class will include the following topics and a tour of the instructors home model railroad layout which has been published numerous times in national model railroad magazines.

$24.00

XKE 1017
Drawing
Description is coming.

$174.00

XKE 1018
Intro to World Humanities
This course will acquaint students with the arts and ideas of the world's major civilizations, from antiquity the period of world exploration during the Renaissance. The approach will be interdisciplinary, covering the artistic values embodied in painting, sculpture, architecture, literature, theatre, music, dance, photography and film as they have emerged out of their historical contexts. In addition to providing the fundamental principles, generalizations and theories used in the study of the humanities, the course aims to enhance students understanding of the contemporary world.

$174.00

XKE 1021
Concepts of Floral Design
This is an introductory course for students to learn the design basics of flower arranging. The course will help students develop an eye for color combinations, flow of lines, balance, geometric shapes and texture uses in flower arranging. The student will become familiar with materials used, mechanics of design, customer perspectives and the post harvest care of floral materials. All class materials are included in class fee. Enrollment is limited.

$292.00

XKE 1022
Introduction to Humanities
This interdisciplinary study begins with a look at artistic and technical elements of several art forms, including painting, sculpture, architecture, music, theater, film, dance and literature. Major themes expressed in the works and their reflection of the values of their culture are also examined.

$192.00

XKE 1023
Introduction to Russian Culture
This course is a survey of the cultural history of Russia from the ninth century to the present. The approach is interdisciplinary, examining representative examples of Russian art, architecture, music, theater, dance, literature and philosophy in their historical context. In addition to developing the students' appreciation of Russia's contribution to world culture, the course aims to enhance students' understanding of the contemporary world. Enrollment is limited.

$189.00

XKE 1024
Art 130
This is an introductory course with an emphasis on the development of fundamental drawing skills, increased power of observation and an awareness of the personally expressive and compositional aspects of drawing.

$174.00
XKE 1026
World History I: Traditional World
This course provides students an introduction to the history of the major world civilizations up to approximately 1500. Upon successful completion of the course, students will be able to identify the major political, social, economic and technical developments in the histories of Egypt, Mesopotamia, other Near Eastern civilizations, Rome, Greece, India, China, sub-Saharan Africa, pre-Columbian America and medieval Europe. Students will be able to define the concept of a traditional, as opposed to a modern society. They will be able to compare these societies with each other and with the modern society of the contemporary United States.

$192.00
XKE 1027
World History II: Modern World
This course provides students an introduction to the history of the world since approximately 1500. Upon successful completion, students will be able to describe and analyze the development of modernism, which occurred first in the West, including the scientific revolution, secularism, industrialism and the rise of new political ideologies. They will be able to trace the expansion of modernization in both the Western and non-Western worlds and the response to modernism in non-Western countries.

$186.00
XKE 1028
Introduction to Bioethics
This course is an introductory course in ethics with an emphasis on the ethical content raised by the discipline of biology. The student will examine the major ethical theories, including: deontology, act utilitarianism, rule utilitarianism, along with select others. Study of the theories will enable the analysis of case studies involving such issues as: human populations problems; reproductive technologies; genetic engineering of humans and other organisms; stem cells and their use; beginning/ending of life; the human genome project; environmental impact of humans; cloning; medical and non-medical genetic interventions; and biological ethics. Enrollment is limited.

$189.00
Railroad Training (XBR)
XBR 7000
Signal Systems Training Program - Fast Track
A description is not available for this course.

$6,000.00
Real Estate and Appraisal (XNR)
XNR 1000
Principles of Real Estate: Pre-license Instruction and Exam Review
This course prepares you to become a licensed real estate salesperson in the state of Kansas and is the first in a series of steps required by the KS Real Estate Commission to obtain your license. To enroll you must have a high school diploma or GED. Upon completion of this course you must pass both parts of a licensing examination given by Promissor.

$229.00
XNR 1010

Salesperson’s Postlicense Course - 30 CEUs
If you are a newly licensed Kansas salesperson this course counts as the 30 required hours toward recertification and meets one portion of the Kansas Real Estate Commission’s requirements for license renewal. Note: You can not receive credit if you complete this course before the issue date on your license.

$199.00
XNR 1070

Basics for New Agents: Warranty, Inspection and Appraisal - 3 CEUs
If you are a newly licensed agent this course will benefit you greatly. You will review home warranties and what they cover, discuss the different facets involved in a home inspection, and obtain an overview on appraisals and their purpose.

$49.00
XNR 2030

Professional Real Estate Management - 9 CEUs
You will learn the basic principles of real estate management. This includes the management plan, owner relations, record keeping, marketing, leasing, tenant administration, maintenance, staffing and employee relations, rental housing, office buildings, shopping centers and retail properties. This course has been approved for 9 elective continuing education hours from the KS Real Estate Commission.

$99.00
XNR 2120

Command Spanish for Agents - 9 CEUs
Come be immersed in a comprehensive language program that will provide you with immediate access to functional language skills to help you better assist your Spanish-speaking customers. Upon completion you will be able to use Spanish to greet property buyers, interview clients to determine their needs, discuss loans and contracts, provide property descriptions, discuss closings, etc. No prior knowledge of Spanish is necessary. You will receive a manual and two CDs for your reference.

$129.00
XNR 3000

Real Estate Finance, Value, and Investment Performance
All appraisers should be knowledgeable about financial markets, financial mathematics and how financial markets impact real estate values. In this hands-on seminar, you will learn the relationship between debt and investment risk and value. You will understand how financial markets impact value and influence buyer behavior and investment decisions. You will leave this seminar knowing a new terminology that is important for all real estate appraisers.

$150.00
XNR 3001

Supporting Capitalization Rates
The theme of this seminar is that a well-supported capitalization rate is logically impacted by market activity, tested for reasonableness, and demonstrates consideration by the appraiser of the relevant factors that affect the property. Working with realistic case studies, you will develop well-supported, market-extracted capitalization rates that reflect specific economic and property characteristics. You will also learn how the appraiser should apply skills and market knowledge to check the rate for reasonableness.

$150.00
XNR 3010
Basic Appraisal Principles
If you are considering a career in professional valuation services, this is your first course. This course will introduce you to real property concepts and characteristics, legal considerations, influences on real estate values, types of value, economic principles, real estate markets and analysis, highest and best use, and ethical considerations. The course will provide a solid foundation in basic appraisal principles no matter what appraisal specialty you pursue. By successfully completing the course and exam, you will have met most states’ education requirements in the content area identified as basis appraisal principles.

$450.00
XNR 3011
Appraisal 757 - The Road Less Traveled: Special Purpose Properties
This case study seminar will teach you how to address more effectively the special purpose properties in unique valuation assignments. Increase your confidence and business opportunities. CE - 7 hours for General Appraisers.

$150.00
XNR 3012
Appraisal 740 - Appraising the Tough Ones: Case Studies in Complex Residential Valuation
The seminar provides numerous unique examples and a case study to help you successfully solve complex residential valuation problems. CE - 7hrs.

$150.00
XNR 3020
Basic Appraisal Procedures
In this course you will apply the principles and concepts you learned in "Basic Appraisal Principles." You will go through the valuation process including defining the problem, collecting and analyzing data, reaching a final opinion of value, and communicating the appraisal. You will learn about the three approaches to reaching an opinion of value - income capitalization, cost and sales comparison - and apply them in case studies. Through case studies you will discover the steps and concepts involved in the cost approach. The course will guide you through the sales comparison approach including researching the market, verifying information, selecting units of comparison, conducting a comparative analysis, making adjustments, and reconciliation. By successfully completing the course and exam you will have met most states’ education requirements for content identified as basic appraisal procedures.

$450.00
XNR 3030
Course 210 - Residential Case Study
In addition to reviewing residential appraisal techniques, this course uses a case study to demonstrate the skills needed by modern residential appraisers. The material takes the class through a residential appraisal from the time the assignment is received to the point that a value conclusion is reached and the appraiser is ready to complete the appraisal report. The case study provided is
supplemented by drill problems that focus on individual valuation procedures. Market extraction of data is emphasized in this course. In addition, participants are required to consider the impact of the Uniform Standards of Professional Appraisal Practice and the Code of Professional Ethics of the Appraisal Institute. This practical course is designed to help participants apply the principles and procedures learned in earlier courses. Prerequisites: Appraisal Principles and Appraisal Procedures or Real Estate Appraisal Principles and Basic Valuation Procedures or An Introduction to Appraising Real Property or an equivalent background is strongly recommended. Required Textbooks: Appraising Residential Properties, second edition; Dictionary of Real Estate Appraisal, third edition.

$450.00

XNR 3040

Basic Income Capitalization
Pre-requisite: Courses 110 and 120. You will develop an understanding of the mathematical procedures used to analyze data and derive value opinions for income-producing properties. You will review the theory and applicability of the income capitalization approach along with the reasoning and concepts behind yield capitalization formulas.

$650.00

XNR 3045

Advanced Income Capitalization - 510
You will investigate and explore advanced applications of the income capitalization approach. Discounted cash flow (DCF) analysis provides the framework for much of the discussion of investment analysis concepts, emphasizing an understanding of the relationships among the various components of DCF. Financial leverage, risk analysis, and ways to support a discount rate will be highlighted.

$650.00

XNR 3050

Course 320
A description is not available for this course.

$475.00

XNR 3051

Business Practices and Ethics - 420
This is the second course in the Appraisal Institute's Standards of Professional Practice series. You'll learn how the organization's Code of Professional Ethics can empower you to practice your profession in accordance with the Appraisal Institute's guiding values and principles, and why this is important to you as a practicing appraiser. Participants will become familiar with the definitions and canons of the Code of Professional Ethics and how the code relates to the Uniform Standards of Professional Appraisal Practice and the Appraisal Institute's Certification Standard.

$150.00

XNR 3090

Course 510 - Advanced Income Capitalization
Participants in this course are assumed to have a working knowledge of the income approach. Through lectures and homework assignments, you will receive an understanding of more advanced, contemporary applications of the income approach, as well as a thorough understanding of discounted cash flow analysis. At the conclusion of the course, you will also have an understanding of the relationship between value and real estate investment decisions. Risk analysis will be presented as it applies to the selection and support of yield rates.
Prerequisites: Successful completion of Appraisal Principles (Course 110), Appraisal Procedures (Course 120), Basic Income Capitalization (Course 310) and General Applications (Course 320), or an equivalent educational background and a working knowledge of the income approach is strongly recommended. Required Textbook: The Appraisal of Real Estate 10 edition. Optional Text: The Appraiser Workplace.

$625.00
XNR 3100
Course 520 - Highest and Best Use and Market Analysis
This course is designed to help participants apply market analysis to appraisal procedures, with particular emphasis placed on estimating supply and demand. The course provides tools that appraisers can use to support these highest and best use determinations. Course participants will gain a deeper understanding of the markets in which buyers and sellers operate and learn how to measure the future performance of properties in those markets. Demand analysis for retail, office, and residential properties is emphasized. Step-by-step procedures for performing marketability studies are presented and data sources are identified. Absorption and capture rate analysis for use in discounted cash flows is also explored. Prerequisites Appraisal Principles, Appraisal Procedures, Basic Income Capitalization, General Applications, and Advanced Income Capitalization; or an equivalent background and a working knowledge of the three approaches to estimating value is strongly recommended. Optional Textbook Readings in Market Research for Real Estate You may purchase this textbook in the JCCC bookstore.

$550.00
XNR 3110
Course 530-Advanced Sales Comparison and Cost Approaches
This course provides in-depth instruction in the sales comparison and cost approaches as they apply to income-producing properties. In this course, participants explore various methods of determining elements of comparison in the sales comparison approach. Methods used to select, measure, and support adjustments, including graphing, pairing, sorting, and regression analysis, in addition to non-numerical, subjective arguments, are presented. Participants will learn the importance of the cost approach when it is market driven and how this approach applies to everyday valuations. After reviewing the standard methods of calculation, the course explores alternative applications. In addition, participants will learn how to extract depreciation from the market and apply it to real-world problems. Also covered are how to use quantitative analysis, confirmation of data, and reconciliation in the appraisal process. Prerequisites Appraisal Principles, Appraisal Procedures, Basic Income Capitalization, General Applications and Advanced Income Capitalization; or an equivalent background and a working knowledge of the three approaches to estimating value is strongly recommended. Required Textbooks The Appraisal of Real Estate, tenth edition; The Dictionary of Real Estate Appraisal, third edition. You may purchase these books at the JCCC bookstore.

$550.00
XNR 3150
Appraisal 550 Advanced Applications
Advanced applications synthesizes the three approaches to value, examines their applications and helps participants apply the basic and advanced valuation techniques they have learned in previous courses. Case studies on actual property will give first hand knowledge to choose appropriate tools to solve appraisal problems. This seminar will teach you to identify the demographic and economic data that are used to estimate an absorption period, prepare cash flow forecast, calculate replacement allowance and reversionary value and distinguish between fee simple, leased fee and leasehold estates. Required textbook: The Appraisal of Real Estate, 11th Edition.

$700.00
XNR 5000
Managing Risk in Today's Market - 9 CEUs
Recent surveys have shown that 70% of lawsuits against real estate agents are about alleged misrepresentation of the property condition. Agency changes are often a by-product of these lawsuits. This course covers specific areas of risk reduction that will that will help you protect yourself.

$99.00
XNR 5010

Antitrust and Real Estate - 3 CEUs
As a real estate professional, you must have a basic knowledge of antitrust laws. By completing this course you will gain an awareness and understanding of the types of conduct prohibited by antitrust laws, and learn the keys to avoiding potential problems and costly litigation.

$59.00
XNR 5015

Understanding Home Inspections - 4 CEUs
This informative and interesting course prepares you to deal with home inspections and inspectors. You will learn how to spot "red flags" when listing property. The course manual is an excellent reference source.

$59.00
XNR 5020

HUD Repossession Transactions - 4 CEUs
HUD-owned properties provide a source of affordable housing for many families and provide an additional source of business to real estate agents. This course will show you how to handle HUD repossession transactions and how to earn a generous commission for your efforts.

$59.00
XNR 5036

Required Salesperson & Broker Core - 4 CEUs
In this course you will exam the law, risk management and broker relationship guidelines for the seller agency, buyer agency and transaction broker. You will receive a manual so complete it has become a basic reference source for salespersons and brokers throughout the state.

$59.00
XNR 5037

Broker Core: Management for Today's Brokers - 4 CEUs
This course will show you the essential aspects of real estate brokerage. You will focus on policy and procedures and the necessary tools you need to comply with both federal and state laws.

$59.00
XNR 5038

How To Be a Good Transaction Broker - 4 CEUs
In this course you will cover provisions governing the practice of transaction brokerages. This course highlights field applications by focusing on concepts and techniques that will enable you to legally and effectively perform your duties. You will learn the necessity of treating both parties with honesty and impartiality.

$59.00
XNR 5039

HUD 203(k) - 4 CEUs
Successfully completing this course will give you the knowledge necessary to offer this viable financing alternative to sellers and buyers. The course is designed to support FHA’s 203(k) program objective, which is the restoration and preservation of the nation’s existing housing stock.

$59.00

XNR 5040

Appraisal Course: HUD Form 4150.2-VC Training
This course will cover the following information: Site hazards and nuisances, soil contamination, grading and drainage, wells and individual water supply & septic systems, wood destroying insects, private road access and maintenance, structural conditions, foundations, roofing, mechanical systems, electrical systems, plumbing systems, venting, fixtures, water heating equipment, and other health & safety deficiencies such as windows, staircases, lead based paints, and structure accessibility. This course is approved for 14 credits for appraisers.

$275.00

XNR 5041

Course 540-Report Writing & Valuation
Report Writing and Valuation Analysis provides instruction and practice in communicating a narrative appraisal. Lectures focus on relevant questions in each step of the valuation process and on the integration of the various parts of an appraisal report. Participants consider relevant questions as they work through a case study, deriving conclusions and organizing them into a consistent, well reasoned narrative. The examination consists of various parts of a self-contained appraisal report, which are prepared as homework assignments and submitted at the end of the course. By focusing on effective organization, style, grammar, and the elimination of wordiness and ambiguity, this course helps develop good writing habits and promote effective communication in appraisal reports.

$650.00

XNR 5212

Supporting Capitalization Rate
Improve your appraisal reports with well supported capitalization rates by attending this new one day seminar! You will focus on practical ways to incorporate judgment and market experience into the rate selection process. In fact the theme of this seminar is that a well supported capitalization rate is logically impacted by market activity, tested for reasonableness & demonstrates consideration by the appraiser of the relevant factors that affect the property.

$125.00

XNR 5213

Adv. Residential Form/Narrative Report Writing
Learn to write the results of your appraisal on standard report forms while writing the narrative comments clearly and succinctly. You will discuss and review residential valuation procedures and the current standards for appraisal reports. You’ll examine the rule of effective writing and critique samples taken from the text to form your own work. Prerequisite: Course 110, 120 and 210. Required textbooks: The appraisal Writing Handbook and Uniform Standards of Professional Practice.

$595.00

XNR 5214

Separating Real/Personal Property from Intangible
Business Assets You will learn the theoretical and analytical framework for separating the tangible and intangible assets of operating properties. Through discussion, lecture, role-playing and case studies you will apply the theory of the firm and the concept of economic profit to the solution of problems related to ad valorem taxation, eminent domain, loan underwriting and transaction price allocation. Bring a financial calculator to class. The required textbooks are: A Business Enterprise Value Anthology and Uniform Standards of Professional Appraisal Practice.

$250.00  
XNR 5215  
National Uniform Standards of Professional Appraisal Practice (USPAP) Update  
This course, designed by the Appraisal Institute, focuses on the recent changes to the Uniform Standards of Professional Appraisal Practice. All sections pertain to the USPAP requirements for ethical behavior and competent performance by appraisers. The material will help you clarify concepts such as scope of work and when USPAP applies. This course is for students who have already completed the 15-hour USPAP course. It satisfies most states’ continuing education requirements of a National USPAP Update course for license renewal.

$165.00  
XNR 5216  
National Uniform Standards of Professional Appraisal Practice (USPAP)  
This course covers basic rules for ethical behavior and competent performance. The course is designed to comply with USPAP requirements for state certified appraisers and it highlights the role of the appraiser and the implied impartiality often associated with this role. Participants will learn how requirements of the USPAP affect their appraisal business. NOTE: The Appraiser Qualifications Board (AQB) has issued a statement that indicates effective 01/01/2005 an appraiser must successfully complete the USPAP update course every two years to meet the state’s USPAP continuing education requirement. The appraiser can take this USPAP course but it will only count for hours toward his or her state’s continuing education requirement; this course will not meet the USPAP continuing education requirement.

$275.00  
XNR 5219  
Appraisal 520 - Highest & Best Use and Market Analysis  
In this course participants learn to apply market analysis to appraisal procedures, with particular emphasis on estimating supply and demand. The course presents market analysis techniques as tools to increase reliability of highest and best use analysis and evaluation models. Participants will gain a deeper understanding of the markets in which buyers and sellers interact and learn how to measure the future performance of properties. Other topics include demand analysis for retail, office, and residential properties and absorption and capture rate analysis for use in discounted cash flow analysis. Enrollment requirements: completion of Appraisal Principles 110, Appraisal Procedures 120, Basic Income Capitalization 310, General Applications 320, and Advanced Income Capitalization 510, or the equivalent educational background. A financial calculator is required for this class.

$650.00  
XNR 5225  
Reviewing Residential Appraisal Reports  
Recent guidance from federal regulators and the increase of real estate fraud has placed renewed emphasis on the importance of the appraisal review process. This seminar is designed to invoke discussion about the correct use, pitfalls, and optimal procedures used in the review of residential appraisal reports. Most residential review assignments are done for lenders who are complying with quality control requirements, so in addition to USPAP Standard 3, lender quality
control programs including Fannie Mae and FHA forms are included. Key information for residential appraisers who review reports or would like to learn about this type of work will be presented including tips on where to find and confirm data presented in reports. Required equipment HP-12C or equivalent calculator.

$150.00
XNR 5230
Residential Market Analysis and Highest & Best Use
You will learn how to read and map a market area for a subject property and discover the essential links between market analysis, highest and best use analysis, and the three approaches to value (cost, sales comparison, and income capitalization). Theory is translated into practice through extensive and varied classroom activities encouraging you to become actively involved in applying concepts to real-world situations. Successful completion of the course and exam should satisfy most states’ education requirements in the content area identified as residential market analysis and highest and best use.

$325.00
XNR 5235
Report Writing and Valuation Analysis
This course provides instruction and practice in communicating a narrative appraisal. Lectures focus on relevant questions in each step of the valuation process and on the integration of the various parts of an appraisal report. You will work through a case study, deriving conclusions and organizing them into a consistent, well-reasoned narrative. The examination consists of various parts of a Self-Contained Appraisal Report, which are prepared as homework assignments and submitted at the end of the course. By focusing on effective organization, style, grammar, and the elimination of wordiness and ambiguity, you will learn to develop good writing habits and communicate effectively in appraisal reports.

$650.00
XNR 5240
Residential Site Valuation and Cost Approach
This NEW course designed by the Appraisal Institute meets current and future AQB criteria. It focuses on the valuation of vacant land parcels and the development of the cost approach for students with introductory experience and understanding of fundamental concepts of appraising. An in-depth case study takes you from the origin of the appraisal assignment to a final value estimate using various cost approach applications. By successfully completing this course and exam, you will have met most states’ education requirements in the content area identified as residential site valuation and cost approach. This course will also satisfy part of the required coursework for SRA Associates of the Appraisal Institute who are pursuing the SRA designation after May 2006.

$325.00
XNR 5245
Evaluating Residential Construction
This seminar will provide you with a comprehensive orientation to all the elements of a house including style, structure, envelope, interior, and mechanical systems components of single-family housing. You will gain the insight, vocabulary and confidence needed to accurately and efficiently inspect, describe and critique residential properties. You will also improve your skills in identifying the style, quality and condition of a house.

$200.00
XNR 5250
Evaluating Commercial Construction
This seminar will provide you with a complete introduction to site and building improvements including site, structure, enclosure and mechanical systems components of both old and new commercial construction. You will improve your identification of building conditions and determination of physical and functional depreciation.

$350.00  
XNR 5512  
**Supporting Capitalization Rates**

Improve your appraisal reports with well supported capitalization rates by attending this new one day seminar! You will focus on practical ways to incorporate judgment and market experience into the rate selection process. In fact the theme of this seminar is that a well supported capitalization rate is logically impacted by market activity, tested for reasonableness and demonstrates consideration by the appraiser of the relevant factors that affect the property.

$125.00  
XNR 6000  
**Home Inspection Training**

This course prepares you to become a home inspector by training you to pass the National Home Inspector's exam and the American Society of Home Inspector's exam. Topics covered include the history of the inspection industry; an overview of plumbing, electrical, air and heating systems; structure quality (including walls, windows, doors and frames); foundations and roofs; and how to write reports. Classroom instruction will feature hands-on displays of electrical panels, furnaces, plumbing fixtures, roofing materials and more. You will accompany the instructor on an actual home inspection. Books and study materials may be purchased through Midwest Inspectors Institute.

$2,100.00  
XNR 6001  
**Certified New Home Sales Professional**

A description is not available for this course.

$0.00  
XNR 9000  
**Wonderful World of Finance**

A description is not available for this course.

$0.00  
XNR 9001  
**Real Estate Trends & Investment Criteria**

A description is not available for this course.

$0.00  
XNR 9002  
**Market Focused Residential Design**

A description is not available for this course.

$0.00  
XNR 9003  
**Technical New Home Construction**

A description is not available for this course.
Recording Engineer (XRE)

XRE 1001
Chamber Recording Ensemble I
This is an entry level course for the recording engineering student, emphasizing guided practice and actual recording session experience in the recording studio.

$640.00

XRE 1002
Advanced Recording Engineering I
Building on the practical skills gained in Intro to the Recording Studio and Recording Studio Skills II, this course begins advanced study of the essential equipment, recording techniques, and theoretical principles use in the modern professional recording studio. Emphasis is placed on the advanced study of sound and its production, as well as the capture, distribution, preservation, manipulation, and enhancement of sound through the use of advanced, modern studio tools. Students will additionally demonstrate essential knowledge of the basic electronics and audio theory necessary for intuitive and creative operation of Pro Tools TDM and other professional DAW tools of the modern recording studio.

$1,600.00

XRE 1003
Recording Studio Skills II
This course is an in-depth study of the modern multi-track recording studio, and a continuation of Intro to the Recording Studio. Emphasis is placed on developing increased competencies in a variety of recording studio skills. Students will demonstrate increased competencies in using the patch bay and tracing signal flow, properly selecting and using microphones, using the audio console in a utilitarian and creative manner, reading electronic schematic diagrams, using soldering skills to fabricate circuits, using multiple sets of audio monitors and headphones to analyze audio and mix audio, and record and mix audio sessions using industry-standard Digital Audio Workstations (DAW). 3 lecture, 2 hrs. lab/wk

$1,280.00

XRE 1004
Music Theory for Recording Engineers
This course is for the recording engineering student with little experience in the practical application of music theory principles in the daily operation of a professional recording studio. Students will learn the fundamentals of basic, modern music theory as it relates to their daily activities in a professional studio environment. Topics to be covered will include scales, note values, chords, rhythm, musical form, time signatures, key signatures, score reading, intonation and the application of musical nomenclature in the use of computer sequencers and Digital Audio Workstation tracking, editing, and mixing sessions.

$960.00

XRE 1005
Chamber Recording Ensemble II
This is a mid-level course for the recording engineering student with little experience in the practical application of the art of audio engineering. Through continued practice and new additional recording session experience in the recording studio, the student will expand on the basic fundamentals of recording and running a recording session in a professional studio environment. Topics to be covered will include stylistically dependent instrument and vocal setups, microphone choice and placement, tracking a recording session, mixing and
mastering, session protocol, and communication and client relations skills.

$640.00

XRE 1006

Chamber Recording Ensemble III
This is a mid-level course for the recording engineering student with little experience in the practical application of the art of audio engineering. Through continued practice and new additional recording session experience in the recording studio, the student will expand on the basic fundamentals of recording and running a recording session in a professional studio environment. Topics to be covered will include stylistically dependent instrument and vocal setups, microphone choice and placement, standard and alternative methods of tracking a recording session, plug-in vs. hardware options in mixing and mastering, session protocol, and communication and client relations skills.

$640.00

XRE 1007

Chamber Recording Ensemble IV
This is an advanced-level course for the recording engineering student with experience gained in Chamber Recording I, II, III in the practical application of the art of audio engineering. Through continued practice and new additional recording session experience in the recording studio, the student will expand on the skills learned by recording and running various styles of recording sessions in a professional studio environment and/or remote locations, with instructor permission. Topics to be covered will include stylistically dependent instrument and vocal setups, microphone choices and placements, standard and alternative methods of tracking a recording session, mixing, mastering for different mediums, session protocol and communication and client relations skills.

$640.00

XRE 1008

Introduction to the Recording Studio (1 CR)
A description is not available for this course.

$1,280.00

XRE 1009

Advanced Recording Engineering II
This course continues the advanced study of the modern professional recording studio as introduced in Advanced Recording Engineering I. Emphasis is placed on in-depth study and use of professional analog and digital recording techniques and equipment. Students will demonstrate essential knowledge of the basic electronics and audio theory necessary for intuitive and creative operation of DAWs and other essential professional tools used in the industry. Students will also gain basic competencies in the creative use of audio with video, and will demonstrate common procedures for studio related maintenance, calibration, alignment and basic repairs.

$1,600.00

XRE 1010

The Studio Business
This course is for the recording engineering student with little or no experience in the business concepts and daily operation of a professional recording studio. Students will learn the basic fundamentals of business as it relates to the professional studio environment. Topics to be covered will include joining a studio’s staff or building a new studio, success through diversification, management, communication and client relations, financial concerns, copyright issues and studio pricing/collection.
$960.00  
XRE 1011  
Recording Engineer Portfolio  
A description is not available for this course.

$640.00  
XRE 1012  
Remote Location Recording  
This is a course for the recording engineering student with little experience in the practical application of the art of remote multitrack audio recording and is available to recording students after completion of Intro to the Recording Studio. Through new remote recording session experience outside of the traditional recording studio, the student will learn the basic fundamentals of running remote multitrack recording sessions in indoor and outdoor venues removed from a professional studio environment. Techniques to be covered will include stylistically dependent instrument and vocal setups, microphone choice and placement, tracking a remote recording session, dealing with weather and other remote location concerns, mixing while multitrack recording, session protocol, and communication and client relations skills.

$640.00

**Sign Language (XVS)**

**XVS 1000**  
**ABC, 123 & Finger Spelling**  
This very basic sign language course, which teaches participants the manual alphabet, number signs and finger spelling, provides an excellent preparation for Sign Language I. In addition, it provides information and details about the deaf culture.

$15.00  
**XVS 1100**  
**Sign Language I**  
This basic course in sign language will acquaint beginners with the manual alphabet and the most commonly used signs, leading toward the development of conversational skills. The textbook, "Learning American Sign Language", can be purchased at the JCCC bookstore.

$79.00  
**XVS 1200**  
**Sign Language II**  
This course will offer continued development in the language of signs with emphasis on building vocabulary and developing expressive and receptive signing skills. The textbook, "Learning American Sign Language", can be purchased at the JCCC bookstore.

$79.00  
**XVS 1300**  
**Sign Language III**  
Continue the development of vocabulary building with emphasis on comprehension and expressive signing skills. The textbook, "Learning American Sign Language", can be purchased at the JCCC bookstore.

$79.00
XVS 1400

Sign Language IV
This course is for you if you're interested in reviewing your sign language skills. Through practice, dialogue, ASL theory, finger spelling research and activities, participants will review Sign Language I, II and III and enhance their conversational signing skills. Bring the text, "Learning American Sign Language", from your previous classes. Prerequisite: Sign Language III or equivalent.

$65.00

Small Business (XBE)

XBE 0101

Business Communications Using e-mail
Become an e-mail expert! Learn the basic parts of an e-mail and how to use them correctly. Learn the ins and outs of effective e-mail communication. Learn how to avoid common mistakes often made by newcomers to the information super-highway. Learn how to attach applications and documents to your e-mail messages. Learn how to put emphasis and intonation that we take for granted when talking on the telephone into your e-mail messages. Learn about privacy and what encryption techniques are available for use with e-mail. Learn how to find and guess e-mail addresses, and make yourself easy to find on the Internet. Learn about web-based e-mail services including how and when they are useful to

$50.00

XBE 0212

How to Start and Manage a Home-Based Business
Thinking about starting your own business out of your home to save on start-up and overhead costs? Learn the marketing and management skills necessary to succeed and identify resources to assist you as you begin your business. You will learn how to address issues such as licenses, regulations, legal structure, taxes and insurance; how to set up a record-keeping system; and how to develop a business plan.

$40.00

XBE 0214

Success Right from the Start
Thinking about starting your own business? This seminar provides an overview of useful business information covering government requirements, forms of business organization, record keeping and financial planning. You will learn how to objectively evaluate your business concept, products and services; define and analyze the market potential for your business; and begin work on a business plan for managing your business and obtaining financing. A banker and an attorney who specialize in working with small businesses also participate in this seminar as guest speakers.

$30.00

XBE 0225

Intro to Quickbooks Pro
Learn how to set up your business in this popular computerized accounting program?the right way. In this beginning-level seminar, you will learn how to create your own chart of accounts; set up customers, vendors, and employees; generate invoices and receive payments; pay bills and write checks; track credit card purchases and balances; reconcile bank accounts; track and pay sales taxes; and produce customized financial statements and reports that will help you manage your business.

$189.00
Successful Selling for Entrepreneurs: Helping Customers Buy
Develop your skills in the three phases of the "helping customers buy" process: preparation, making a customer call, and follow-up. This is more than a sales technique; you will learn how to develop long-term customer relationships and increase your profitability. This seminar was developed by the Ewing Marion Kauffman Foundation. Lunch is provided.

$99.00

Small Business Resource Conference
The conference will present private and government resources available to small business owners. Lunch will be provided. This conference is sponsored by the Small Business Development Center and the Kansas Women's Business Center and hosted by Congressman Dennis Moore.

$15.00

Opportunity Analysis
This workshop is designed to overcome the barrier that keeps many individuals from starting a business- the lack of a workable idea. Using a three-step approach for identifying and evaluating business ideas, participants will learn to identify a business opportunity that fits their own unique needs and goals. Textbook available at JCCC Bookstore.

$288.00

FastTrac Business Plan
In this course you will learn to assess the strengths and weaknesses of a business concept and write a sound business plan. You will collect, analyze and organize market research data into a marketing plan; and prepare the financial projections for your business concept. Textbook available at JCCC bookstore.

$432.00

Write Your Own Press Release
Getting the word out about your business is easy and inexpensive. In this class you will learn the basic mechanics of distributing your press release. Participants will walk away with one press release they can immediately distribute to local publications to publicize their business.

$30.00

Creating an Effective Brochure
Learn how to make your sales more effective with a well-written marketing brochure. This course will cover how to write and organize the brochure for your target audience. You will leave the session with an 8 1/2 by 11 tri-fold marketing brochure for your business.

$30.00

HyperGrow! Your Business
Want your business, revenues and profits to grow? Most businesses do. In fact, it has been said a business is either growing or shrinking. Join us for this session
on how to profitably increase customer revenues. Study the nine natural laws of
growth that every business must address to ensure forward progress. See how
strategic marketing principles combine with other business functions to form a
comprehensive business development system. It’s like MiracleGro (tm) for your
business!

$59.00
XBE 0257
Meet the Tax Man: Your Tax Responsibility to the State of Kansas
This presentation by the Kansas Department of Revenue focuses on withholding
and sales tax, record keeping, filing requirements and preparing forms.

$15.00
XBE 0258
Financial Management for Small Business
You will learn to identify and evaluate the various sources available for funding a
small business, how to determine borrowing needs and how to work with financial
statements. Additionally, you will learn about capital and cash management, how
to establish credit policies and prepare sales forecasts. Textbook available at
JCCC bookstore.

$288.00
XBE 0259
Legal Issues for Small Business
You will learn about forms of business ownership, contracts, business owner’s
liability, agency, bankruptcies, business crimes, intellectual property, labor and
employment laws and the regulation of business, civil court procedures and
alternate dispute resolution. The textbook is available at the JCCC bookstore.

$288.00
XBE 0260
Sales and Use Tax Information for Construction Contractors
This presentation by the Kansas Department of Revenue focuses on estimated
taxes, preparing forms, filing requirements, record keeping and withholding and
sales taxes.

$15.00
XBE 0262
Strategic Business Planning for Profitable Growth
Too often entrepreneurs get caught up in their own company’s daily operations
and do not take time to plan for the future, spending more time working IN the
business than ON the business. Through this interactive and enlightening
workshop, entrepreneurs develop a strategic direction for the future. First
entrepreneurs create a three-year vision for their companies. Then by analyzing
their current position, entrepreneurs create strategic action plans. Tools and
resources are available to help entrepreneurs take the necessary steps toward
achieving their visions.

$79.00
XBE 0263
FastTrac 9/11
FastTrac program for laid-off workers.

$50.00
XBE 0264
Marketing and Selling Your Products and/or Services to Governmental Entities
U.S. government agencies represent the world's largest market and contract to purchase a variety of products and services. Learn about and how to target local, state, and federal government contracting opportunities. Learn where to find these offices through the services of a procurement assistance center. Find out where to locate information about government contracting on the Internet, and find resources that can assist you throughout the contracting process.

$25.00

XBE 0265
Entrepreneurial Management: FastTrac Planning for Growth Proven Strategies to Maximize Performance
Entrepreneurs who build successful businesses know life-long learning, building on their knowledge, and examining their strategies lead to greater success. This four week, fast-paced series is designed to expand the knowledge and skills of small business owners by focusing on strategic business functions with the goal of maximizing performance. Location: Kauffman Foundation, 4801 Rockhill Road, Kansas City, MO. Contact the Small Business Development Center at 913-469-3878 for registration information.

$600.00

XBE 0266
Introduction to Entrepreneurship
You will learn the role of entrepreneurial businesses in the United States and the impact on our national and global economy. You will analyze the skills, commitment, challenges and rewards necessary to successfully operate an entrepreneurial venture, as well as entrance strategies to accomplish such a choice.

$288.00

XBE 0267
Entrepreneurial Marketing
In this class you will gain insights essential for marketing your entrepreneurial venture utilizing innovative and financially responsible marketing strategies. You will analyze marketing philosophies and prepare a marketing plan to launch your business venture and to implement during the first two years of business operation.

$288.00

XBE 0268
Franchising
Participants will learn how to research the franchising methods of doing business from the perspective of both the franchisor and the franchisee. You will learn how to analyze independent management efforts necessary for a successful franchise business venture as well as understand the interdependent contractual obligations.

$432.00

XBE 0269
Small Business "Check Up"
Tailored for those in business for two years or more and with 50 or fewer employees this workshop shows you how to track the ongoing health of your business and how to pay attention to the "right symptoms." An accountant, attorney and financial planner share the checklists and questions they annually
review with business owners and point out the catchphrases and warning flags they watch for. Continental breakfast included.

$0.00
XBE 0270
Creating and Protecting Your Business Image
Whether it is printing a logo, packaging your product or designing a web presence, careful planning helps you control the quality, schedule and cost of doing business. This class is an overview of graphic design/advertising, marketing, and the printing industry. An attorney provides information on trademarks and copyrights.

$30.00
XBE 0271
QuickBooks Pro/ Premier for Contractors
Tailored to the specialized needs of contractors, you will learn how to set up your business in this popular computerized accounting program - the right way. This beginning-level seminar is for people who have a working knowledge of Windows. You will learn how to create your own chart of accounts; set up customers and jobs, vendors and sub-contractors; generate estimates and invoices for your customers; progress billing; retainage; receive payments and make deposits; pay bills and sub-contractors; track your credit card purchases and balances; reconcile your bank account; track and pay sales taxes; and produce customized financial statements and job-profitability reports that will help you manage your business.

$189.00
XBE 0272
Demonstation Contractors QB
Attend a free showcase of a new workshop on this popular accounting program - tailored to the specialized needs of contractors. This demo will feature estimating, progress billing, tracking retainage, job costing, tracking credit card purchases, tracking and paying sales tax, and more. This one hour showcase will make you eager to attend our full-day workshop on January 26, 2006 from 9 a.m. to 4 p.m. reference CRN 20803.

$0.00
XBE 0273
Intermediate QuickBooks Pro Workshop
Designed for persons with a working knowledge of QuickBooks Pro, this workshop covers the more advanced features of the program, including customizing invoices, setting up budgets, tracking billable time and expenses, utilizing form letters, memorizing financial statement groups, and defining custom fields. Class size is limited to provide for individualized instruction. Bring your own QB data files and questions. Facilitated by a CPA, who is also a Certified QuickBooks Pro adviser.

$79.00
XBE 0274
Family Business
By exploring a diverse set of family firms, examining the interrelationships among the owners, and the management practices you will become familiar with methods that ensure success while recognizing the advantages and challenges facing family enterprises. Emphasis is placed on positioning the family enterprise for sustained growth and continuity through generations.

$432.00
XBE 0275

Funding Acquisitions
Participants will learn the impact of funding sources for entrepreneurial ventures. This course will focus on venture capital from the business concept phase to an exit strategy, including protecting intellectual capital, identifying funding sources, writing funding agreements, and managing an Initial Public Offering or merger and acquisition. Participants also will develop and present a funding proposal.

$288.00

XBE 0276

Strategic Business Planning for Profitable Growth
Is your business growing profitably? Do you take time to strategically plan how to grow your business? Work on your business instead of just in it by attending this comprehensive seminar that will lead you to develop a strategic business plan to grow profitably.

$79.00

XBE 0277

Mindset Series: Three business and life planning sessions for experienced business owners
This first time offered series of three workshops is designed for experienced business owners seeking to strategically grow their businesses as part of their plan for a successful life. Bring balance to your life by understanding and planning for a successful relationship between your life’s dreams and ambitions and the needs and requirements of your business. These workshops also will help you better understand a major resource in your business and life — you and the people who make up your team. See following descriptions for the individual workshops, Strategic Planning, Team Building, and Strategic Life Planning. Receive a discount of $75 ($25 per workshop) if you register in advance for all three workshops (Mindset Series Parts 1, 2, & 3 described below). Fee includes workbooks.

$650.00

XBE 0278

Mindset Series Part 2 -Strategic Planning
Participants will learn more about their entrepreneurial mindset as it relates to planning. The process incorporates the human element into the plan and participants will plot a strategic course for their business by attending this innovative and results oriented workshop. Upon completion of this strategic planning process, participants will have a one-page blueprint to follow to take their businesses to new levels of success. Fee includes workbook.

$325.00

XBE 0279

Mindset Series Part 3-Team Profile
Participants will look at their own mindset to understand what might be holding them back from reaching their full potential and achieving their goals. Insights into the mindsets needed to run a successful business will be identified. Team building will take on new meaning as the knowledge learned in this workshop is put into action. Fee includes workbook.

$75.00

XBE 0280

Mindset Series Part I-Strategic Life Planning
Participants will choose the life they desire, plan that life, and develop action plans to live that life. Without a plan, we are destined to live a life of default, responding
to life as it happens. This workshop will help participants emerge from the maze of life and discover where they want to go and how the pieces of life can be fit together to reach their goals and dreams. Fee includes workbook.

$325.00

XBE 242

Tax Workshop for Small Business Owners
Presented by the IRS Taxpayer Education Office, this workshop is designed for small business owners or anyone thinking of opening a small business. Topics include record keeping, business use of the home, depreciation and federal tax requirements for small businesses.

$15.00

XBE 243

Comprehensive Business and Employment Tax Workshop
Presented by the IRS Taxpayer Education Office, this workshop provides comprehensive tax information for small business bookkeepers and employers.

$25.00

Special Interests (XPT)

XPT 1003

Oriental Rugs
The hand-knotted Oriental rug has long been esteemed as a unique item of household furnishing, as a floor covering and as decorative art. We will explore the wide diversity of rug patterns and colorings, their geography and their beauty. This will be an in-depth study. Textbooks and other optional materials may be purchased at Ara’s Gallery.

$48.00

XPT 1004

Be Ready for the Nerman: The JCCC Collection of Paintings and Sculpture
Have you ever puzzled over the Walking Man on the roof of the Commons Building or pondered the meaning of an abstract painting in the JCCC Dining Hall? With the opening of the Nerman Museum of Contemporary Art just around the corner, this course will teach you about the renowned collection of contemporary art on the JCCC campus. The publication, Public Art Review, can be purchased in the JCCC Bookstore.

$29.00

XPT 1056

Understanding Diamonds
Gemologist Tom Tivol will discuss and describe how jewelers and gemologists identify both colorless and natural fancy colored diamonds and determine their quality and value, along with the remarkable history of these sparkling gemstones. Attendees will learn the important questions to ask their jewelers when making any diamond purchase.

$12.00

XPT 1057

Understanding the World of Colored Gemstones and Pearls
Gemologist Tom Tivol will explore the endlessly fascinating worlds of colored gemstones, natural and cultured pearls, and will include their history up to modern times, identification, durability and determination of quality and value by jewelers
and gemologists. You will also learn questions to ask jewelers when purchasing any colored gemstone or pearl jewelry.

$12.00
XPT 1058

Understanding Diamonds and the World of Colored Gemstones and Pearls
Take this two-session class covering diamonds, colored gemstones and pearls. The first session covers diamonds and session two is pearls and colored gemstones. You can also enroll individually in Understanding Diamonds or Understanding the World of Colored Gemstones and Pearls.

$19.00
XPT 1067

Tree Keepers: Volunteer Training for a Healthy Community Forest
A community forester and area professionals will teach this class where you will learn proper tree planting, pruning, identification, selection, placement and maintenance of trees. Participants will learn about volunteering opportunities to work with the KC metro area public trees. Two class sessions will be spent in a lab environment, times will be announced at the start of class.

$14.00
XPT 1072

Now You See It, Now You Don’t
How do you observe and document alleged paranormal activity? Topics include various ways to conduct, organize and implement investigations of paranormal or unexplained phenomena. Learn to analyze and debunk sources of seemingly unexplained events. Text (optional) How to Be a Ghost Hunter by Richard Southall, is available on Amazon.com.

$49.00
XPT 1073

Now You See It, Now You Don’t - Intermediate
Covers the recommended tools for paranormal investigations including the assembly of an affordable kit. Class will take a field trip. Learn to analyze and debunk sources of seemingly unexplained events. Prerequisite: Now You See It, Now You Don’t. Text (optional) How to Photograph the Paranormal by Leonore Sweet, is available on Amazon.com.

$49.00
XPT 1074

Now You See It, Now You Don’t-EVP Technology
Electronic voice phenomena (EVP) is the fastest growing segment of paranormal research. It is unexplained paranormal audible events of unknown origin. Learn the history of EVP, how to identify and disprove various voice recordings. Prerequisite: Now You See It, Now You Don’t-Intermediate. Text (optional) is Ghost Tech by Vince Wilson, available on Amazon.com.

$49.00
XPT 1102

WWI: Trench Warfare and Personal Accounts
The course will focus on the development and utilization of trench warfare during World War I and accounts by soldiers as initially described in personal journals or correspondence and later incorporated in American fiction.

$15.00
**XPT 1225**

**The Philosophy of War**
Those with an interest in the strategy of war will find this class interesting. It will cover justification for going to war, stopping wars, selling of a war, methods of fighting war, the ethics of war and rules of engagement. Illustrations from the Korean War will be used.

$12.00

**XPT 1246**

**Tae-Kwon-Do/Self Defense**
You will develop better balance, coordination, flexibility, self-confidence and self-control while learning basic self-defense techniques. Learn body positioning, blocking, hand strikes, kneeing and kicking.

$69.00

**XPT 1255**

**Cruising Hassle Free**
Whether it's your first cruise or your fifth, the time you spend aboard ship should be pure enjoyment with only pleasant surprises. Learn what cruising is all about; know before you go; and plan for fun on your floating hotel.

$12.00

**XPT 5001**

**Outdoor Survival Techniques**
Learn the essential skills you need to survive in a remote and/or stranded condition. You will learn skills to react appropriately during emergencies, develop a survival kit, purify water, use a map and compass, make a fire, construct shelter and identify a wide variety of wild plants that can be used as survival foods.

$82.00

**XPT 5002**

**Get Paid to Travel**
Do you love to travel and enjoy working with individuals? If so, then tour directing may be the career for you! Learn everything you need to start your new and exciting career as a professional tour director.

$82.00

**XPT 5003**

**Wow, What a Great Event!**
Looking for a fun new career coordinating special events? Learn proven techniques from a master event planner. Find out what the experts and master planners already know so that you can avoid embarrassing and costly planning errors or production mistakes.

$82.00

**XPT 5005**

**Criminal Procedure: From Arrest to Appeal**
Take an in-depth and fascinating tour of criminal procedure, beginning with the investigation, arrest of a suspect and the trial and appeal of a criminal case. This course will help you understand the intricacies of criminal law, from arrest warrants to appellate briefs.

$82.00
Criminal Law: Introduction
Step inside the world of prosecutors and defense attorneys and learn the criminal justice system from the inside out. The instructor will take you behind the scenes into the real world of murder investigations and other crimes and shows you how prosecutors, police officers and defense attorneys prepare cases.

$82.00

Real Estate Investing
You will explore how to find, finances and negotiate a deal, how to invest in lease options, foreclosures, quick flips, rehabs, and mobile homes.

$82.00

Winning Strategy for the Courtroom
Learn what it takes to win in civil court from an experienced attorney who has tried and won hundreds of cases. Master the techniques that will take you from the initial client interview, through the discovery of evidence, to the preparation and presentation of a case. This course is a must for anyone working in the legal field or thinking about hiring an attorney.

$82.00

Create Your Own Nonprofit
Do you dream of starting and running your very own nonprofit? This unique course carefully details the many aspects of taking a nonprofit start-up to reality. This class is filled with savvy advice and plenty of grassroots organization.

$82.00

Sports Clinics-Youth (XLC)

Baseball Clinic, Boys
Take advantage of personal and group instruction in order to enhance your baseball skill level. Weekly clinics will emphasize the specific skills you need to become a complete baseball player. You will participate in actual baseball games which will highlight skills taught during daily instruction. Lunch is provided.

$145.00

Baseball, Preseason Clinic, Boys, Ages 13 to 18
Spring training starts early this year. Start preparing for the upcoming baseball season at JCCC’s indoor training facility. JCCC coaches will emphasize the offensive and defensive fundamentals of baseball, including fielding, throwing, hitting and base running instruction, that will help you prepare for the upcoming baseball season. Participants will need their own bats and fielding gloves.

$85.00

Baseball Pitching Clinic, Ages 12 - 18
Improve your pitching skills by focusing on all phases of pitching, including mental
approaches, fielding and pickoffs. Proper pitching fundamentals including
throwing grips will be taught through specific drills. Be sure to bring your own
catcher. Number of participants limited to 10.

$55.00
XLC 1011

Baseball One Day Clinic, Boys Ages 8-10
This one day clinic is designed for the young player to learn the proper offensive
and defensive fundamentals of baseball. The clinic includes fielding, throwing,
hitting and base running instruction, along with some game situations. Boys
should bring their own bats and gloves. Lunch is included.

$55.00
XLC 1015

Baseball Hitting League, Boys, Ages 13 to 18
This hitting league will provide players an opportunity to practice their skill in a
competitive and fun environment during the off season. The objective is to score
more points than the opposing team by hitting designated areas with the ball. A
member of the JCCC coaching staff will supervise each session. Boys should
bring their own bats and helmets.

$100.00
XLC 1016

Baseball, Hitting League, Boys 8-14
Teams of 6-7 will play a baseball game inside of a cage against another team of
6-7. Live pitching and live hitting will help all players prepare for the upcoming
season.

$75.00
XLC 1027

Basketball Parent/Daughter Clinic, Ages 7 - 10
Here's your chance to participate in the same sports clinic as your daughter. This
interactive clinic provides a fun opportunity to learn together fundamental skills
taught in a positive and effective manner. Both you and your daughter will
participate in the drills together. This is a perfect opportunity to help you reinforce
your daughter's basketball skills. Note: Any family member (over the age of 18)
who wants to serve as "parent" may participate. $70 per parent & daughter.

$35.00
XLC 1028

Basketball Parent/Son Clinic, Ages 7 - 10
Here's your chance to participate in the same sports clinic as your son. This
interactive clinic provides a fun opportunity to learn together fundamental skills
taught in a positive and effective manner. Both you and your son will participate
in the drills together. This is a perfect opportunity to help you reinforce your son's
basketball skills. Note: Any family member (over the age of 18) who wants to
serve as "parent" may participate. $70 per parent & son.

$35.00
XLC 1029

Basketball Positional Clinic, Boys, ages 11 to 14
This clinic will cover the fundamental skills of the game (passing, dribbling,
shooting and team concepts using demonstrations and competitive contests.)

$85.00
XLC 1030

Basketball, Boys, Ages 11-14
Enjoy learning the fundamental skills of the game (passing, dribbling, shooting, etc.) and team concepts through participating in demonstrations and playing actual games. You will be placed on teams according to age. Lunch is included.

$145.00

XLC 1031

Basketball Shooting Clinic, Boys & Girls, Ages 12 - 18
If you want to improve your shooting skills this clinic is for you. The clinic will focus strictly on shooting, including free-throws, jump shots, off the pass and dribble, lay-ups and post moves. Limited enrollment.

$55.00

XLC 1032

Basketball, Boys 3 on 3 Tournament, One Day, Ages 8 to 10
Get your friends together for a JCCC Summer 3 on 3 Basketball tournament. It is a great chance for you to test your skills that you have practiced at the JCCC summer clinics. The day begins with a clinic on all aspects of the game of basketball. Then it's time to tip off the tourney. The tournament will be divided into age groups. Lunch is included.

$35.00

XLC 1033

Basketball Girls 3 on 3 Tournament, One Day
A description is not available for this course.

$35.00

XLC 1034

Basketball Clinic, Girls, Ages 7 to 10
Each Sunday afternoon participants will be instructed on the strategies of play and execution of fundamentals. Ericka Bradford, JCCC assistant women's basketball coach, will direct this clinic.

$75.00

XLC 1035

Basketball Clinic, Girls, ages 11 - 14
Enjoy learning the fundamental skills of the game (passing, dribbling, shooting, etc.) and team concepts through participating in demonstrations and playing actual games. You will be placed on teams according to age. Lunch is included.

$145.00

XLC 1036

Preseason Basketball, Girls Clinic
Start preparing for the upcoming middle and high school basketball season at JCCC. JCCC Basketball coaches will emphasize the fundamentals skills of the game including passing, dribbling, shooting and team concepts, that will help you prepare for the upcoming basketball season.

$85.00

XLC 1037

Basketball Girls 3 on 3 Tournament, Ages 8 to 10
Get your friends together for JCCCs Summer 3 on 3 Basketball Tournament. It is a great chance for you to test your skills that you have practiced in the summer clinics. The day begins with a clinic on all aspects of the game of basketball. Then it’s time to tip off the tourney. The tournament will be divided into age groups. Lunch is included. 1 session $35

$35.00
XLC 1038
Basketball 1 Day Clinic, Boys, ages 8-10
This one-day clinic covers all aspects of the game of basketball. Fundamental skills of the game (passing, dribbling, shooting etc.) and team concepts using demonstrations, videos and competitive contests will be included. Boys are divided into groups according to age. JCCC Men’s Basketball coaching staff will direct this clinic. Lunch is included.

$35.00
XLC 1039
Basketball, Youth Boys 10-14
This youth basketball camp for boys 10-14 will focus on Defensive, Offensive and Shooting fundamentals. The participants will play controlled 5 on 5 games and instructed on team concepts.

$50.00
XLC 1040
Basketball Speed, Agility & Conditioning Clinic, Boys & Girls, Ages
Here’s your opportunity to learn strategies designed to help you develop and improve first-step explosion, straight ahead speed, lateral quickness and speed necessary for quick decisions. Strength and conditioning drills which are essential for sports related injury prevention will be presented each session.

$100.00
XLC 1041
Spring Break, Dance Team/Cheerleading Technique Clinic, Girls, Ages 7 to 13
Learn to improve flexibility, dance and cheer technique, and showmanship ability-everything you need to be a successful performer! Stretching techniques will be taught to improve splits, kicks, and leaps; turns and universal dance steps will be taught and practiced as well as cheer jumps, arm positions, and chants. Finally showmanship will be discussed as it relates to entertaining audiences. In addition, several short dance routines and cheers/chants will be taught. Girls should wear fitted dance pants or capris, fitted tank tops; dance sneakers or jazz shoes preferred or regular sneakers. All hair should be pulled back into a pony-tail or bun. Please bring a water bottle and light snack if necessary.

$95.00
XLC 1042
Dance Team/Cheerleading 1 Day Clinic, Girls/Boys, ages 8-13
Learn to improve flexibility, dance and cheer technique and showmanship ability - everything you need to be a successful performer! Stretching techniques will be taught to improve splits, kicks and leaps; turns and universal dance steps will be taught and practiced as well as cheer jumps, arm positions and chants. In addition, several short dance routines and cheers/chants will be taught. Dance pants, capris, fitted tank tops should be worn; sneakers or jazz shoes preferred. Please bring a water bottle and snack if necessary. Lunch is included.

$35.00
**XLC 1044**

**Golf Beginning, Boys and Girls, Ages 7-9**

Are you just getting started playing the game of Golf? If so this beginning clinic is for you. You will learn the fundamentals of putting, chipping, pitching, and driving through demonstrations, videos, practice drills and course play. You will also learn the rules of the game, scoring and etiquette. Part of each day will be spent practicing and playing at a nearby golf course. (Participants will be transported in college vans driven by clinic staff.) Bring your own clubs and golf balls (minimum 1 dozen). Junior clubs are highly recommended. All practice balls, green fees and lunch are included in the fee.

$225.00

**XLC 1045**

**Golf Intermediate/Advanced Clinic, Boys & Girls, Ages 13 & Up**

Refine your golfing skills and techniques through this intermediate to advanced level clinic. You will work on your putting, chipping, pitching and driving skills while following correct golf etiquette. You will learn how to select the correct club for distance and accuracy to match your own individual ability; gain the feeling and understanding of a balanced and fluid swing; improve your finesse shots around the green; align and stroke putts with greater accuracy; and demonstrate a working knowledge of the rules, terminology and strategies of the game. Most of each day will be spent practicing at a nearby golf course. You will be transported in college vans driven by clinic staff to local golf courses. You should bring your own clubs and golf balls (minimum 1 dozen). All practice balls, green fees and lunch are included in the fee.

$225.00

**XLC 1046**

**Golf Beginning/Intermediate, Boys and Girls, Ages 10 to 12**

If you are just getting started playing the game of golf or have had previous golfing experience this clinic is for you. You will learn and practice the skills of putting, chipping, pitching, and driving through demonstrations, videos, practice drills and course play. You will also review the rules of the game, scoring and etiquette. Most of each day will be spent practicing at a nearby golf course. (Participants will be transported in college vans driven by clinic staff.) You should bring your own clubs and golf balls (minimum 1 dozen). All practice balls, green fees and lunch are included in the fee.

$225.00

**XLC 1047**

**Junior Golf Tournament, One Day, Boys & Girls, Ages 7-18**

Here is a perfect opportunity to test your golfing skills. This day-long tournament begins with a brief review of golf including putting, chipping, pitching, driving and etiquette and includes a demonstration of the rules, terminology and strategy of the game. The golf tournament will consist of a modified stroke play and golfers will be divided according to age groups. You should bring your own clubs and golf balls (minimum 1 dozen). Green fees and lunch are included in the fee. Meet at Smiley’s Golf Course.

$65.00

**XLC 1048**

**Putting/Short Game Clinic, Boys & Girls, Ages 12-18**

Do you want to lower your golf score? Here’s your opportunity to work on your short game. In this fun packed clinic, you will practice and learn all the short-game golf shots from putting to the dreaded half wedge. Instruction will also include when to use each shot to maximize your scoring abilities. This clinic can get you on your way to a lower golf score. Participants should meet at Smiley’s Golf Course clubhouse.
Premier Golf Clinic, Boys and Girls ages 13 and up

Are you ready to take your golf game to the next level? This premier clinic will get you on the path to reaching your best. You will receive intensive on-course instruction at the area's finest golf courses. Note: The golfer/instructor ratio will not exceed 4:1. You will learn course management strategies that include: how to approach each hole; how to play to your strengths; learn when to take risks and when to avoid them. You will learn how to select the correct club for distance and accuracy and to match your own individual ability. You will be transported in college vans driven by clinic staff. You should bring your own clubs and golf balls (minimum 1 dozen). All range balls, green fees and lunch are included in the fee.

Soccer, Boys and Girls, Ages 7 to 12

Here's your chance to learn and/or improve your skills in juggling, shooting, passing, and trapping. You will also learn a variety of fast footwork drills, game tactics and the responsibilities of specific positions. Team unity will be stressed. The clinic will include a review of both indoor and outdoor soccer instructional tapes. Youth soccer coaches are also invited to participate and learn from the JCCC staff. Lunch is included.

Soccer Goalkeepers Clinic, Boys & Girls, Ages 7 - 18

Is goalkeeping your position? If so, come to this comprehensive goalkeeping clinic and learn the skills of catching, distribution, punting, punching, field positioning, low diving deflections and tipping away, positioning, handling breakaways, verbal control of the field, strategies for corner kicks, as well as free and penalty kicks. You will also learn various stretches and warm-up routines. You'll learn the one way to do everything correctly and avoid the most common mistakes made by goalkeepers.

Soccer, Advanced Boys (Ages 12-16)

Participants will learn the progressions of juggling, shooting, passing, trapping and a variety of fast footwork drills, as well as game tactics and the responsibilities of specific positions. They will also learn pattern play, channel game, attacking and defending. Exercise will also include 1 on 1, 2 on 1, 2 on 2, 3 on 2, 3 on 3, 4 on 3, 4 on 4. Team unity will be stressed. Lunch is included.

Softball: Speed and Agility

The class is focused around the game of softball and will work toward improving base-running speed and the defensive quickness of the players. The instruction will focus on improving foot speed and the overall strength and speed of the athletes. In every meeting the girls will be taught the proper technique for running and apply that to the game of softball. The meeting will consist of various agility drills and circuit training to improve the strength and speed of the participants.
JCCC softball coach Ron Meinert will direct this clinic emphasizing the proper techniques for throwing and fielding. This clinic is for beginners and intermediate softball players. Girls should bring their own gloves.

**XLC 1056**

**(Softball, Preseason Clinic, Girls)**

Start preparing for the upcoming softball season indoors. JCCC coaches will emphasize the offensive and defensive fundamentals of softball. The clinic includes fielding, throwing, hitting and base running instruction that will prepare you for the upcoming softball season. Participants should bring their own bats and gloves.

$100.00

**XLC 1059**

**(Softball One-Day Clinic, Girls, Ages 8 to 10)**

JCCC's softball coaches will direct this clinic and concentrate on the proper softball fundamentals. Each player will learn basic defensive skills of catching and throwing, and the basic fundamentals of various positions. Each player will also learn basic strategies in hitting. Breakdown drills will be used and games will be played. Players need to bring their own gloves and bats. Lunch is included.

$35.00

**XLC 1061**

**(Softball Positional Clinic, Girls, Ages 7 - 10)**

If you enjoy softball and want to improve your skills out on the field this clinic is for you. You will learn the defensive skills of catching and throwing, and the basic fundamentals in various positions. You will also learn basic strategies in hitting. Breakdown drills will be used in actual game play in this clinic. Be sure to bring your own glove and bat.

$75.00

**XLC 1062**

**(Softball Outfielder Clinic, Girls, Ages 12 - 18)**

If you play outfield or want to be an outfielder, this clinic is for you. You will learn the fundamentals of outfielding through drills which are designed to promote and improve your skills. You will work on fly balls, team communication, plus footwork for throwing and catching fly balls. You will also learn hitting fundamentals.

$75.00

**XLC 1063**

**(Softball Infielder Clinic, Girls, Ages 12 to 18)**

If you play infield or want to be an infielder this clinic is for you. You will learn the fundamentals of infielding through drills which are designed to promote and improve your skills. You will work on groundballs, team communication, footwork, slow-rollers and double play turns/feeds. You will also learn hitting fundamentals.

$75.00

**XLC 1064**

**(Softball Fundamentals for Pitchers, Girls)**

Learn the proper fundamentals of pitching in this fun, action packed clinic. You will learn the proper techniques through several breakdown drills and pitching to your own catcher. You will learn how to throw different pitches and will have the opportunity to practice good techniques and perfect the different pitches. This clinic is limited to: 10 pitchers (Each pitcher needs to bring a catcher)
$55.00
XLC 1065

Tennis Clinic, Beginning/Intermediate, Boys and Girls, Ages 10 to 18
Move your tennis game up a notch and learn or improve your tennis fundamentals in this comprehensive beginning / intermediate clinic. You will participate in tennis instruction, practice drills, view informational game films and participate in group competition. Meet in the JCCC Gym Fieldhouse. Lunch is included.

$145.00
XLC 1066

Tennis Clinic - Boys and Girls
Come play tennis in JCCC's state of the art indoor facility. Clinic director Susan Pozek, will teach tennis fundamentals to the beginning and intermediate players. This clinic consists of instruction, drills, films and group competition.

$95.00
XLC 1070

Track and Field Clinic-Boys and Girls (Ages 10-15)
Test the skills that you developed in the JCCC summer clinics. The following events will be included: 100 meters dash, 200 meters, 400 meters, 800 meters and 1600 meters races. Track competitors may compete in any of three running events. The pole vault will also be contested. Participation in the pole vault is limited to participants who have successfully completed the JCCC summer pole vaulting clinics. Lunch is included.

$35.00
XLC 1075

All Sports Speed & Agility Clinic, Boys and Girls, Ages 12 to 18
Learn the proper sprint/running mechanics for the sports of track, football, softball, baseball, basketball, tennis and soccer. You will improve your mechanics, learn proper weight-lifting fundamentals for speed/agility development and participate in drills, routines and workouts. Lunch is included.

$145.00
XLC 1076

Speed Development, Boys & Girls, Ages 13 - 18
Whether you are in preseason preparation or off-season conditioning this clinic is perfectly designed for you. Fundamental drills, routines and workouts to help with improvement of proper sprint/running mechanics for the sports of track, football, softball, baseball, soccer, and tennis will be presented. The clinic will provide instruction on improving mechanics, weight lifting fundamentals for speed development and actual participation in these drills, routines and workouts.

$85.00
XLC 1077

Spring Break - Speed Development, Boys & Girls, Ages 11 - 13
Students will be taught the fundamental drills, routines and workouts to help with improvement of proper sprint/running mechanics for the sports of track, football, softball, basketball, tennis and soccer. The clinic will provide classroom instruction on improving mechanics, weight-lifting fundamentals for speed development and actual participation in these drills, routines and workouts.

$95.00
XLC 1080
Pole Vaulting Clinic, Boys and Girls, Ages 13 to 18
This Pole Vault clinic gives you a great opportunity to refine and improve your skills. You will receive your own biomechanical analysis and participate in intense training activities such as lectures, drill sessions, vault sessions, and video study of world class vaulters. Due to the structure of this clinic, enrollment is limited.

$100.00
XLC 1081

Pole Vaulting Clinic, Evening, Boys & Girls, Ages 12 to 18
If you have previous pole vaulting experience, here's your opportunity to refine and improve your skills. You will receive your own biomechanical analysis and participate in intense training activities such as lectures, drill sessions, vault sessions, and video study of world class vaulters. Due to the structure of this clinic, enrollment is limited to participants who have previously participated in pole vaulting.

$100.00
XLC 1083

Lacrosse Clinic
Improve your lacrosse skills and gain a competitive edge for your upcoming season with this unique clinic. JCCC will host this new lacrosse clinic at the indoor training facility. Points of emphasis will include fundamental stick skills, individual offensive and defensive fundamentals, shooting and small group play. Participants will need their own lacrosse stick, non-marking indoor shoes, mouth guard, eye gear and lacrosse helmet.

$100.00
XLC 1090

Volleyball Clinic, Beginning, Girls, Ages 7 - 10
Have a blast this summer and dig the fun game of volleyball. You will learn how to serve, the forearm pass, and how to set, spike and block. Get an introduction to digging, defensive rolls, set variations and multiple offenses. This clinic is especially designed for young players with little or no volleyball experience.

$85.00
XLC 1091

Spring Break, Volleyball Clinic, Girls, Beginning/Intermediate, Ages 11 - 13
If you are a volleyball player with beginning to intermediate level skills in playing the game, this clinic is for you. You will develop and refine your individual skills in digging, defensive rolls, set variations and multiple offenses. Top-notch coaches will lead you in various drills and instruct you on proper volleyball techniques.

$95.00
XLC 1092

Volleyball Premier, Girls, Ages 14 to 18
Are you ready to sharpen your skills and take your game to the next level? If so, this clinic is for you. You must be between 14-18 years of age and have an intermediate to advanced level of skill in volleyball. You will develop real game confidence and improve your mental toughness, aggressiveness, second effort and quickness through the skills developed in this clinic. Team play skills and increasing your game concentration and poise will be stressed to help you refine and improve your individual skills. Excellent instruction with individual player development will occur in this clinic.

$75.00
XLC 1096

Beach Volleyball, Boys & Girls, Ages 11 to 14
Want to catch some rays on the beach and play and up and coming sport? Get some sand between your toes and participate in an enthusiastic learning environment of action-packed volleyball instruction, competition and fun! JCCC’s clinic staff is experienced and dedicated to providing a safe learning environment. Make sure you bring a water bottle and sun block.

$75.00

XLC 1099

Volleyball Premier Clinic, Girls, Ages 14 - 18
Are you ready to sharpen your skills and take your game to the next level? If so this clinic is for you. You must be between 14 to 18 years of age and have an intermediate to advanced level of skill in volleyball. You will develop real game confidence and improve your mental toughness, aggressiveness, second effort and quickness through the skills developed in this camp. Team play skills and increasing your game concentration and poise will be stressed to help you refine and improve your individual skills. Excellent instruction with individual player development will occur in this clinic.

$145.00

XLC 1130

Volleyball Setters Clinic, Girls, Ages 14 - 18
If you are your team’s setter than this Setters clinic is designed for you! This clinic will focus on developing your volleyball setting skills. Coaches will lead participants in various setting drills and instruct on proper techniques.

$55.00

XLC 1135

Volleyball Dig & Pass Clinic, Girls, Ages 14-18
Do you need to work on your digging and passing skills? This advanced level clinic focuses on refining your volleyball skills of digging and passing. Coaches will lead participants in various digging and passing drills and instruct on proper techniques.

$55.00

XLC 1136

Volleyball Parent/Daughter Clinic, Ages 7 - 10
Here’s your chance to participate in the same sports clinic as your daughter. This interactive clinic provides a fun opportunity to learn together fundamental skills taught in a positive and effective manner. Both you and your daughter will participate in the drills together. This is a perfect opportunity to help you reinforce your daughter’s Volleyball skills. Note: Any family member over the age of 18 who wants to serve as “parent” may participate. $70 per parent & daughter.

$35.00

XLC 1140

Spring Break,Sports Week, Boys & Girls, Ages 7 - 13
You will get a chance to try lots of different physical education activities including: team games, weight training, Frisbee, juggling, hiking, yoga, cooperative games and much more. The Sports Week will challenge you to learn new skills and improve physical fitness in a fun learning environment. Activities are selected to develop cooperation, sportsmanship, and self-confidence. The clinic will encourage you to experience success by achieving goals that are appropriate for your ability. The camp is designed to give you exposure to a wide range of fun physical education activities.
$95.00  
XLC 1999  
**Spring Break Supervised Lunch Break For Students Enrolled In Half-Day Clinics**  
Supervision is available during the lunch hour for students enrolled in both morning and afternoon half-day clinics. Students are required to bring a sack lunch and drink.

$20.00  
XLC 2000  
**After-Clinic Activities**  
After clinic activities in the gym are available for all students enrolled in full-day sports clinics and afternoon half-day sports clinics. Participants will be involved in specific planned activities in a safe learning environment. Please note: After clinic activities will be assigned to the gym for sports clinics participants only.

$28.00  
XLC 2001  
**Advanced Baseball Hitting Clinic - Private Lessons, Boys, Ages 12 - 18**  
These individual lessons will provide participants the opportunity to improve their batting techniques in the off season. You will be called 2 weeks in advance to set up your individual lessons.

$300.00  
XLC 2002  
**Advanced Baseball Pitching Clinic - Private Lessons, Boys, Ages 12 - 18**  
These individual pitching lessons will teach the proper mechanics and fundamentals of pitching through video analysis and hands on instruction. You will be contacted 2 weeks before the start date to set up your individual lesson time.

$300.00  
XLC 2003  
**Advanced Pitching & Hitting Clinic - Group Lessons**  
Are you interested in "taking your game to the next level"? Coaches with over 18 years of playing, coaching and teaching experience will be leading these clinics. Proper mechanics and fundamentals of pitching and hitting will be implemented. Video analysis and hands on instruction will be used to improve your mechanics into excellent form and to better prepare yourself for the upcoming season.

$150.00  
XLC 2005  
**Advanced Running Clinic, Boys and Girls, Ages 13 to 18**  
This running clinic provides middle and high school age cross country and distance runners the opportunity to learn more about distance running. The clinic will include intense training activities such as strength and conditioning, a stretching program, biomechanical form analysis, plyometric exercises as well as lectures. Runners will be exposed to a variety of running workouts that will help them prepare for the upcoming track season. Due to the structure of this clinic, enrollment is limited to participants who have previously participated on school sponsored Middle School or High School Cross Country and or Track programs.

$150.00
XLC 2006

Cross Country and Distance Clinic, Ages 14-17 (Evening)
Cross Country and Distance Clinic will provide elementary, middle school and high school age cross country and distance runners the opportunity to learn more about distance running. Each day sessions would include the following: stretching, running, light weight lifting, plyometrics, lecture sessions, and distance running. The clinic will provide participants with access to the cross country course, outdoor and indoor track facilities. Meals not included.

$95.00

XLC 2007

Cavalier Distance Camp, Boys & Girls, Ages 13 to 18
The Cavalier Distance Camp will include intense training activities such as strength and conditioning, a stretching program, biomechanical form analysis, plyometric exercises as well as lectures. Runners will be exposed to a variety of running workouts that will help them prepare for the upcoming Cross Country and Track season. Due to the structure of this clinic, enrollment is limited to participants who have previously participated on school sponsored Middle School or High School Cross Country and/or Track programs.

$75.00

XLC 2010

Spring Break, Weight Training, Boys and Girls, Ages 9-15
Improve your overall strength, increase your muscle tone, lose fat, gain muscle mass, and improve your bone density in this fun filled sports clinic. You will learn the proper way to use free weights, body bars, and tubing with a strong emphasis on correct body alignment and good posture. Strength training also increases your metabolism and physical capacity while increasing your self confidence. Flexibility training reduces stress, improves mobility, and helps prevent injuries.

$95.00

XLC 2011

Conditioning Balanced Athletes, Ages 13 and up
(For ages 13 and up) For athletes with a desire to improve: men and women, high school or college level, professional, amateur, or recreational. ALL sports participants will benefit. The class will work on fundamentals of successful training: proper ways to lift dumbbell and barbells, plyometric work, core conditioning, and yoga. Everyone will walk away empowered with new ways to improve personal performance they can take back into daily training. Proper conditioning is instrumental in injury prevention and improved performance.

$160.00

XLC 2012

Conditioning Balanced Athletes
Proper conditioning is instrumental in injury prevention and improved performance for all athletes. You will learn the proper lifting techniques with dumbbells and barbells to increase overall fitness, strength, and power. Plyometric work to improve speed and explosiveness and core conditioning will be included. Yoga and mental conditioning will be used to train the mind to 'see' performance. Everyone will walk away empowered with new tools to improve personal performances that you can take back into your daily training programs.

$70.00

XLC 2015

Weight Training Clinic, B/G Ages 13 and up
This clinic will utilize free weights, body bars, and tubing with a strong emphasis
on correct body alignment and good posture. Strength training benefits include stronger muscles, bones, tendons, ligaments; more muscle mass; less fat; increased metabolism; greater physical capacity; and increased self confidence.

$45.00
XLC 2016

Weight Training Clinic For Parent and Child, Ages 8 to Adult
Here is a great opportunity to spend some time with your young student and start on the path of getting in shape. This clinic is designed to introduce weight training to both the adults and young students. This clinic will use free weights, body bars and tubing with a strong emphasis on correct body alignment and good posture. Strength training benefits include stronger muscles, bones, tendons, ligaments; more muscle mass; less fat; increased metabolism; greater physical capacity; and increased self-confidence. A parent/guardian must be present per child.

$35.00
XLC 2017

High Jump Clinic, Ages 13 - 18
This pre-season program is designed to help advanced level athletes prepare for non-school sponsored competitions and invitational meets. This clinic will focus on meet preparation, overcoming setbacks during competition and the importance of fundamentals.

$100.00
XLC 2019

Football Advanced, 7 on 7, Boys 10-15
This clinic will implement practice techniques, and develop specific skills related to 7 on 7 football. Each session will reinforce various drills and techniques to enhance each player's overall football understanding and skill level.

$100.00
XLC 2020

Football All Skills Clinic, Ages 11 - 12
Here's your chance to learn the fundamental skills of playing the game of football. You will be coached in the skills of throwing, catching, handing off and lining up in legal formation. In addition, running pass routes, game strategies and defensive play will be emphasized in these action-oriented clinics.

$75.00
XLC 2021

Premier Football Training Clinic, Boys, Ages 12 - 18
Are you ready to take your football skills to the next level? This premier football clinic will take you on the path to reaching your goals. Focus will be on footwork, offensive and defensive plays and game strategies.

$145.00
XLC 2022

Football Running Back/Receiver Clinic, Boys, Ages 12 - 18
Here is your opportunity to improve your ability as a running back/receiver. You will learn the proper techniques on carrying the football, blocking and pass receiving. You will also receive instruction on how to improve your quickness and agility, flexibility and proper running technique.

$75.00
XLC 2023

Football Quarterback Clinic, Boys, Ages 12 - 18
Are you ready to lead your team to victory the big game? This Quarterback clinic will get you on the victory road. You will learn the proper techniques for drop back, roll-out, play action passes and screens. Instruction will include reading defenses, secondary coverages and learning how to recognize them.

$75.00

XLC 2025

Advanced Baseball Hitting League, Boys, Ages 12 to 18
This advanced hitting league will allow the team participants to work on their hitting mechanics and develop a better eye with live pitching. Sign-up should be in teams of 5 to 6 players but individuals who don't have a specific team can register and will be assigned to a team. Teams/Individuals will be contacted 2 weeks prior to start date to determine which time to attend.

$100.00

XLC 2026

Advanced Pitching Lessons
Participants will be taught proper mechanics and fundamentals through video analysis and hands on instruction.

$200.00

XLC 2030

Advanced Boy’s Basketball Hoops Academy, Grades 9-10
Enhancement and development of individual basketball skills. Develop an understanding of individual and team concepts. Develop an understanding of individual weight training (Complex I) and conditioning (super sets).

$90.00

XLC 2031

Basketball Preseason Clinic, Boys, Ages 7 - 10
Start preparing for the upcoming basketball season at JCCC. JCCC Basketball coaches will emphasize the fundamental skills of the game including passing, dribbling, shooting and team concepts, that will help you prepare for the upcoming basketball season.

$85.00

XLC 2035

Advanced Girls Basketball Elite Clinic, Grades 4 thru 12
This clinic will meet 2 hours twice a week. We will work on fundamentals of individual, 1 on 1, 3 on 3 concepts, 5 on 5 full court scrimmaging. We will also hold contests after practicing these fundamentals. We will concentrate on all aspects of the game.

$50.00

XLC 2036

Advanced Girls Position Basketball Clinic, Grades 4 thru 12
Very intense and competitive position clinic for girls, 9th through 12th grade. This clinic is intended to give high school players an opportunity to advance their skills on both high school and collegiate levels. We will be emphasizing guard and post skills.
Advanced Girls Basketball Shooting Clinic, Grades 4 thru 12
4th grade through 12th grade girls will be instructed on shooting techniques.
Attention will be given to shooting, layup and free-throw techniques. 1 on 1 play
and reading screens plus a video on shooting form will be reviewed.

Softball Pitching Instruction
This advanced softball clinic will focus on the fundamentals of pitching. The
fundamentals will be taught through a series of drills and breakdowns. Each
participant will need to provide their own catcher.

Advanced Beginning Competitive Volleyball Clinic
Each session consists of a warm-up, specific skill improvement drills, 6-on-6
scrimmages, and conditioning. This clinic helps to improve beginning fundamental
skills learning competitive strategies, and increasing conditioning levels. The
limited number of players (students) will allow for coaches to instruct players in a
small group setting.

Advancement of Fundamental Volleyball Skills
Improve your basic volleyball fundamentals skills to be able to play at advanced
competition levels. Limited to small number of participants for more personalized
instruction.

Advancement of Fundamental Volleyball Skills II
Improving the basic volleyball fundamental skills to be able to play at advanced
competition levels. Limit to small number of attendees for more personalized
instruction.

Advanced Fundamental Volleyball Skills, Self-Paced
This course allows the student to meet with the coach at times that are arranged
week by week.

Pre-Clinic Activities
As an added convenience to parents, pre-clinic activities will be offered Monday
through Thursday mornings from 7.00 am. to 8.30 am in the Gym JCCC
Fieldhouse. Participants will be involved in specific planned activities in a safe
learning environment.
Sports and Recreation (XYS)

XYS 1000

No Trump Bidding in 4 Easy Weeks
No Trump is very powerful bid. Learn how to make the most of this bid with the Stayman and Jacoby transfer conventional bids. Learn how to defend against No Trump bid with DONT - Disturb Opponents No Trump and other conventions. Note: This class is for the experienced bridge player.

$35.00

XYS 1008

Fly Fishing, Introduction to
Learn the fundamentals of fly fishing: equipment selection and assembly, rigging and basic knots, casting, fly selection, and simple stream fishing tactics from professional guide and instructor. Please bring $5 for practice materials to the first class. Note: Enrollment limited to 10.

$51.00

XYS 1009

Fly Tying Basics
Of all the ways to catch a fish, few are more rewarding than catching one on a fly you tied yourself. No previous experience is necessary - learn step-by-step instructions of basic fly tying techniques. All materials are furnished. There is a $20 material fee payable to the instructors at the first class. Note: enrollment limited to 10.

$51.00

XYS 1030

Fencing, Beginning
Learn the basic techniques and knowledge for fencing. Topics include physical skills, basic foil technique, conditioning, terminology and rules. Equipment is provided.

$69.00

XYS 1045

Fencing, Intermediate
You'll need basic experience in foil fencing for this course, which includes review and practice of the basic skills and fundamental techniques of foil fencing in order to develop greater skill as well as bouts in class tournaments. Equipment is provided.

$69.00

XYS 1052

Kansas Hunter Education
This is the state approved course for the Kansas Hunter Education certificate. You will learn safe firearms and hunting practices, responsible and ethical hunting behavior and basic wildlife conservation principles. You will also discover the vast hunting opportunities available within Kansas. Participants must be 11 years or older to attend this class. Note: Class is limited to 25 students and no walk-ins will be admitted.

$12.00

XYS 1067

Tree Keepers: Volunteer Training for a Healthy Community Forest
A community forester will teach this class and you will learn proper tree planting, pruning, identification, selection, placement and maintenance of trees. Participants will learn about volunteering opportunities to work with the KC metro area public trees. Two class sessions will be spent in a lab environment (Jan. 21 and Feb. 4).

$14.00  
XYS 1070  
**Golf, Beginning**  
This class is for those who have never played golf or consider themselves beginners. Learn basic swing fundamentals and develop a general knowledge of the game. Clubs will be furnished. Cost includes driving range and green fees. Noté: Enrollment is limited to 15.

$124.00  
XYS 1110  
**Contract Bridge, Basic**  
In this introductory class, you will learn bidding and play of the hand in eight short weeks. Come join a friendly and non-intimidating group of other bridge novices. The textbook and supplies will be available from the instructor at the first session and will cost $12.

$51.00  
XYS 1111  
**Bridge: Making a Plan for Playing the Cards**  
Scenario: You and your partner have won the contract. You are the declarer and all eyes are on you. Which cards do you play first? In this workshop, you’ll learn how to plan the strategy of playing the hand.

$12.00  
XYS 1117  
**Bridge: Opening Leads**  
Do you lead differently if defending a no-trump contract or a suit contract? Do you lead your partner’s suit? Do you lead top of a sequence or fourth from your longest and strongest? Questions like these will be answered in this class. Note: Class is for experienced players.

$12.00  
XYS 1119  
**Bridge: 5 Commonly Made Mistakes and How to Fix Them**  
As bridge players, we all make mistakes. In this workshop, we will discuss the five most common mistakes and how to fix them. We will have class discussions and play example hands.

$12.00  
XYS 1122  
**Bridge: Plan the Play**  
Scenario: You and your partner have won the contract. You are the declarer and all eyes are on you. Which cards do you play first? In this workshop, you’ll learn how to plan the strategy of playing the hand.

$12.00  
XYS 1130
Contract Bridge, Intermediate
Intermediate principles of bridge will be introduced to the player familiar with Goren's basic point count system and general play of the game. Further bidding information, as well as play and defense strategies, will be presented. Note: There will be 2 week break for this class (Nov. 7 and 14).

$55.00
XYS 1132
Bridge: Duplicate 'Lite'
Duplicate bridge does not have to be cutthroat and antisocial! This is a low-key, casual, non-threatening introduction to duplicate bridge. This class reaffirms that the primary purpose of bridge is to have fun. The textbook ($5) is available from the instructor at the first session. Note: Participants are expected to know basic bridge.

$55.00
XYS 1133
Bridge: Play of the Hand
This class is designed for intermediate players whose bidding is pretty good, but whose play of the hand and defense need some improving. Displayed hands will be analyzed, and alternative strategies for their play will be discussed and then demonstrated. Various advanced techniques will be presented to strengthen your game.

$55.00
XYS 1145
Basic Bridge Bidding Review
This class is for those who have a basic knowledge of bidding but would like to practice their skill. During each session, we will review by playing eight hands that illustrate bidding fundamentals. Hand records and bidding tips will be available during each class.

$35.00
XYS 1160
Bridge: Defensive Signals
You want to tell your bridge partner to continue leading that suit or to shift to another suit. How do you do that, since you cannot talk across the table? During this workshop, you will learn the basic signals you can give your partner. Note: This class is for intermediate or experienced players.

$12.00
XYS 1165
How to be a Desirable Bridge Partner
This class will involve plenty of bidding and playing with real situation suggestions, for those with a basic knowledge of bridge. Plus you will learn how to be the kind of player others enjoy having around. Note: There will be a 2 week break in this class Nov. 6 and 13.

$55.00
XYS 1183
Bridge: Guided Practice
You'll see lots of play and little lecture, preset hands and some exposed hands. People will have the opportunity and ask questions and play the same hand in two different contracts to learn which is better.
$55.00
XYS 1185
Fly Fishing, Intermediate
This class will critique your casting and teach techniques and strategies to improve your success with nymph, and dry fly and streamer fishing. A trip to a Missouri stream is included. Note: Reserve Oct. 7 or 8 for stream portion. Enrollment is limited to 20.

$111.00

Technical Trades (XND)

XND 1000
Cross Connection Control and Backflow Prevention Certification
This course and exam complies with KS, MO, OSHA/USEPA and ASSE requirements. Topics include cross connection, backflow accidents and preventers, contamination, thermal expansion, pollution and fire protection systems. A study guide is included. A written and hands-on exam will be administered at the end of the course.

$499.00
XND 1010
Cross Connection Control and Backflow Prevention Recertification
KS and MO require recertification every three years. A written and hands-on exam will be administered at the end of the course. Participants must provide a copy of their certification card to be submitted to ASSE upon completion of the course and exam.

$299.00
XND 2010
Welding Update
A description is not available for this course.

$129.00
XND 5010
Refrigerant Transition and Recovery Review and Exam
This course prepares you to take the Environmental Protection Agency-approved test for HVACR technicians and contractors. The exam will be given as part of the course. You can be certified in the following: Type I - Small Appliance; Type II - High Pressure and Very High Pressure; Type III - Low Pressure (Universal). Please bring the EPA Certification Exam Preparatory Manual, available at the JCCC Bookstore, to participate in a pre-test review.

$149.00
XND 5011
Plumbing Exam Prep
This course prepares you for the journeyman or master plumber exam. Loose-leaf 2003 editions of both the Uniform Plumbing Code and the International Plumbing Code are required and are available at the JCCC Bookstore. An additional study guide is included in the course fee. Please bring the books, a calculator, a three-ring binder and two different colored highlighter markers to class. You will need to contact your local city or county codes office directly to apply for the exam.

$269.00
XND 5012

Mechanical/HVAC Exam Prep

$369.00

XND 5013

Electrical Exam Prep
This course prepares electricians to sit for professional journeyman, master, and electrical inspector exams including Experior (Block), IAEI, ICBO, NAI, SBCCI, as well as regional state exams. You will need to contact your city or county codes department to learn which code book(s) are required for your specific exam. Loose-leaf editions of these books are available at the JCCC Bookstore. Please bring your selected code book(s), a calculator, and two different colored highlighter markers to class.

$269.00

XND 5019

Mechanical/HVAC Exam Prep - Accelerated
This fast-paced, two-day course is designed for the experienced professional who is preparing for the masters and/or journeyman licensing exam. The book requirements are the same as the Mechanical/HVAC Exam Prep course. You will need to contact your local city or county codes department directly to apply for the exam.

$369.00

XND 5113

Electrical Exam Prep - Accelerated
This fast-paced, four-session course is designed for the experienced electrician to prepare you to sit for professional journeyman, master, and electrical inspector exams including Experior (Block), IAEI, ICBO, NAI, SBCCI, as well as regional state exams. You will need to contact your city or county codes department to learn which code book(s) are required for your specific exam. Loose-leaf editions of these books are available at the JCCC Bookstore. Please bring your selected code book(s), a calculator, and two different colored highlighter markers to class.

$269.00

XND 6011

Plumbing Exam Prep - Accelerated
This fast-paced, two-day course is designed for the experienced plumber who is preparing for the journeyman or master plumber exam. The book requirements are the same as the Plumbing Exam Prep course. Please bring the books, a calculator, a three-ring binder and two different colored highlighter markers to class. You will need to contact your local city or county codes office directly to apply for the exam.

$269.00
Testing (XVT)

XVT 5001
GRE Preparation - Part 1
This online course reviews all question types on the verbal and analytical sections of the GRE. How to do your best on reading comprehension, analogies, sentence completions, antonyms, logical and analytical reasoning questions will be emphasized and time-saving techniques for both the paper-based and computer administrations of the test.

$98.00

XVT 5002
GRE Preparation - Part 2
This online course features a math review and techniques for tackling the quantitative comparison, discrete quantitative, and data interpretation questions that make up the math section of the GRE. We will also cover time-saving techniques for both the paper-based and computer administrations of the test.

$98.00

XVT 5005
ACT/SAT Preparation - Part 1
This online course includes verbal refreshers and discusses techniques aimed at reducing test-taking anxiety. Topics include effective word usage and grammar for the ACT; sentence completions and analogies for the SAT; and reading comprehension for both tests. Taking both parts 1 and 2 in this two-part series prepares you for question types on each test using test-taking techniques.

$98.00

XVT 5006
ACT/SAT Preparation - Part 2
Continue online preparation for the ACT and SAT by learning test-taking techniques and practicing on previously administered ACT and SAT tests. Math and verbal areas will be reviewed and stress-reducing techniques will be taught.

$98.00

XVT 5007
Everyday Math
Ever find math baffling? This course can help you gain confidence in your basic math skills so you can start using math to your advantage. Each of your lessons will be filled with practical exercises and information that you can put to immediate use. You'll get valuable hands-on experience and advice on using a calculator; determining the proper amount to pay in tips, discounts, and taxes; managing your income and expenses; checking your bills and bank statement for errors and overcharges; comparing investment vehicles; shopping for the best loans and more.

$98.00

XVT 5008
Introduction to Algebra
Understand how algebra is relevant to almost every aspect of your daily life, and become skilled at solving a variety of algebraic problems. This unique and thought-provoking online course integrates algebra with many other areas of study, including history, biology, geography, business, government, and more.

$98.00
XVT 5011

**LSAT Preparation - Part 1**
Taking both part 1 and part 2 will prepare you to perform well on all three question types on the LSAT: reading comprehension, logical reasoning, and analytical reasoning. In this online course you will practice on actual LSAT exams from previous years and learn proven test-taking techniques.

$98.00

XVT 5012

**LSAT Preparation - Part 2**
Taking both part 1 and part 2 of this course will prepare you to perform well on all three question types on the LSAT: reading comprehension, logical reasoning, and analytical reasoning. In this online course you will practice on actual LSAT exams from previous years and learn test-taking techniques.

$98.00

XVT 5021

**GMAT Preparation**
Learn test-taking techniques and methods for improving your score while saving time on all GMAT questions with this online course. Review familiar and new types of questions like critical reasoning and data sufficiency for verbal and quantitative sections. You will practice on actual GMAT tests from previous years.

$98.00

**Writing Center (XGW)**

XGW 1103

**Practical Writing Skills**
(B&G $30)

$63.00

XGW 1107

**Sentence Pattern Skills**
(B&G $30)

$63.00

XGW 1108

**Composing Skills**
(B&G $30)

$63.00

XGW 1109

**Proofreading Skills**
(B&G $30)

$63.00

XGW 1110

**English Grammar Review**
(B&G $30)
$63.00
XGW 1112
Research Skills
(B&G $30)

$63.00
XGW 1115
Revising Skills
(B&G $30)

$63.00
XGW 1120
Writing in the Disciplines
(B&G $30)

$63.00

Youth and Talents (XLY)

XLY 1001
Etiquette for Children, Boys and Girls
The course is designed to model and teach appropriate behavior in different social settings and situations. Students will learn and practice courtesy at home and in school and public places, table and telephone manners, hostess and guest courtesy and conversation etiquette and artful interruptions.

$33.00
XLY 1063
Supervised lunch
Bring your sack lunch. Fee is for supervision of lunch room.

$12.00
XLY 1075
Car Care for Teens, Ages 14 - 18
You finally have your own car or are about to get one, but do you know how to take care of it? You'll discuss, observe and get some hands-on experience in observing proper maintenance such as changing tires, oil, filters, belts and plugs. Get familiar with car brakes, electrical, cooling and exhaust systems. This class will be taught in the JCCC Automotive Technology labs by automotive technology staff.

$49.00
XLY 1080
Emergency Room, Gr. 4-5
Students enrolled in this session will explore the inner working of a hospital emergency room. Students will begin by performing tasks in a fast-paced, intentionally stressful role-play. Debriefing will follow to help students understand the importance of being able to handle multiple situations in a productive way. Students will study the sterile procedure and learn to take vital signs within their own emergency room as they practice on each other. A study of viruses and bacteria, how they have affected the world, and their influence on modern medicine will be a big part of this session.
City Hospital
Children enrolled in this session will have the opportunity to explore the exciting environment of a community hospital. We will begin by exploring why people go to the hospital and we will practice admitting our own patients. We will then discuss the importance of a sterile environment as we don our hospital garb and learn to take each other's vital signs. We will finish our journey by looking at how our skeletal and muscular systems work together as we practice "surgical skills!"

Med School Student
Students enrolled in this session will begin with a look at the emergency room. They will identify medical body systems, learn how diseases are transmitted, understand the qualities that define a good doctor, and look at the historical significance of the Hippocrates' contributions to modern medicine. A discussion of medical ethics will certainly make for lively dinner conversation when your child completes this session.

So You Want to be a Vet
Learn what it takes to be a vet through guest speakers and/or a trip to a vet office. You'll discover what a vet does on a daily basis. You'll learn what type of pet would work best in your house and the start-up costs and expenses of owning a pet. Finally you'll analyze pet food samples and find out what is best for your pet.

Zooland-Design a Zoo
Apply your creative talents as you design your own zoo. Develop an understanding of wild animals and their needs. Choose the most interesting animals as you develop a map of the perfect zoo.

Space Command
Apply for the space program and join your fellow astronauts-in-training as you explore the history of flight and the subsequent travels of humans in space. In hands-on learning activities you'll conduct experiments, record and interpret data in preparation for a lunar landing. In addition to having a 'real blast' you'll work with math skill builders that strengthen math concepts that directly relate to the intricacies of space. Each week is a different curriculum. Students may take one or any combination of the three offerings.

Vocabulary for the ACT/SAT
This course will cover basic information about the exams, along with tips for taking the exams. We'll focus on verbal preparation that will address a variety of learning styles. This course will provide valuable information and a confidence boost for students taking the test in the coming months.
Rhymes, Songs and Fingerplays for Young Children Birth-5 yrs.
Join "Miss Jackie" Silberg and boost your child's math, language, reading and social skills with rhymes and songs that teach your children listening, language, cognitive and motor skills. Learn many new rhymes and songs and how the new research into early childhood brain development can be applied to your child. This class is for parents and grandparents only...no children.

$12.00

Book Bug Bunch ages 6-8
Sign your beginning reader up for the Book Bug Bunch... love of reading and good reading habits will lead to a joyous lifetime hobby and help pave the way for school achievement. The young reader will become acquainted with many selections of picture books through reading, listening and sharing. Each young reader will receive a picture book at the conclusion of the class.

$20.00

City Hospital
Children enrolled in this session will explore the magic of the human body. We start by creating maps to guide us through the circulatory and digestive systems. We then move onto our five senses as we conduct laboratory experiments to discover how the brain controls all that we see, hear, taste, touch, and smell. We will conclude with a life-size body outline showing off all that we have learned.

$65.00

City Hospital
Children enrolled in this session will create their own community hospital. We will begin by exploring basic first-aid and how to handle making a 911 call. We will then create and set up the various areas of our hospital as we prepare to handle our own medical emergencies. Then mayhem will break loose as everyone takes turns being the patients and the doctors. Be prepared to take x-rays, cast broken bones, and stitch up wounds!!!

$60.00

Emergency Room, Gr. 4-5
Students enrolled in this session will study bones and muscles and how the body heals injury. Students will learn the concept of opposing muscle groups and identify muscles and how they work within their own bodies. Students will practice splinting and casting on one another in order to understand how stabilizing injuries can promote healing.

$65.00

Emergency Room, Gr. 4-5
Students enrolled in this session will examine several of the bodies exciting complexities. The students will begin by journeying through the anatomy of the eye and ear. Students will then move on to the workings of the respiratory system and how it supplies our body with oxygen.

$65.00
Dinosaur Digs, Gr. 2-3
Travel back through time to the Mesozoic Era. We will begin by finding out what made a dinosaur a dinosaur. We will look at how the dinosaurs evolved as time passed through the Cretaceous, Triassic, and Jurassic periods. Finally, we will explore different kinds of fossils and how paleontologists study them, ending with the creation of our very own mold fossil of a dinosaur tooth.

$65.00
XLY 1147

Dinosaur Digs II, Gr. 2-3
First we will learn the most common dinosaur myths and why they are untrue. We will then reconstruct a skeleton with actual bones, just like paleontologists do with dinosaur bones. We will end with the study of dinosaur behavior, defenses, and communication to help determine which dinosaurs were social and which were loners.

$65.00
XLY 1149

Dinosaur Digs
Children enrolled in this session will find out where all the dinosaurs have gone. We will begin by each creating our own new species of dinosaurs. Then we will choose how our species dies after learning about all of the different extinction theories. Students will conclude the session by looking at all of the ways we can see dinosaurs in the world today. Yes, today!

$60.00
XLY 1158

Med School Student
Students enrolled in this session will start with a quick overview of Session I. We will then move on to learning how to take vital signs and understanding the relationship of this information to their own health and the health of others. Students will learn the five major steps of patient care and apply them within their own "group practice." Analysis of disease and disease prevention will conclude the session.

$65.00
XLY 1159

Med School Student
Students enrolled in this session will investigate the aging process and look at life expectancy and its effect on society. Students will examine the brain and its role in learning and memory as well as have an opportunity to learn some strategies for improving their own memory skills. Time permitting, we will finish the session with a look at alternative medicine practices.

$60.00
XLY 1167

Fun with Science, Gr. 2-3
What makes a light bulb turn on when you flip the switch? How does a rocket fly high into the sky? What makes paper airplanes fly, twist, and turn in the air? Learn the answers to these questions and many more as you become a science investigator and have fun with science!

$65.00
XLY 1168

Petmania-All About Dogs
Have you always wanted a dog? Spend your mornings learning all about our wonderful canine companion and his needs. Learn about a variety of breeds and find the right one for you!

$65.00  
XLY 1169  
**Petmania-Exploring Pet Ownership, Gr. 2-3**  
Have you always wanted to own a pet? Explore the responsibilities and options of pet ownership. Complete activities on the costs of owning a pet and picking the right pet for you.

$65.00  
XLY 1174  
**Exploring with Mother Goose, Gr. K-1**  
Join Mother Goose for a week of fun! Through hands-on math activities,

$75.00  
XLY 1176  
**Zoology**  
Use your math skills to develop a class zoo. Design the animals, determine the cage size, and build pattern pathways. You will practice estimating, problem solving, measuring and much more as you take on the role of a zookeeper.

$75.00  
XLY 1177  
**Munch, Munch, Munch**  
Do you like to eat snacks? Would you like to learn how to make an edible mud pie? How about an American flag you can eat or an apple tree? Come practice math, reading, and science skills while following directions to make delicious snacks. We will measure ingredients, determine fair shares, practice problem solving, addition and subtraction, and much more. Bring your Chef's hat, you're in for a real treat! Note: Students who are picky eaters or have food allergies should be advised about taking this class. We will be using peanut butter and some products that contain milk.

$75.00  
XLY 1178  
**Fantastic Frogs**  
Put your hopping feet on and jump into the world of frogs where you will explore the habitat and life cycle of the frog. Practice measuring and recording data as you compete in a frog jumping contest. In this class you will learn about frogs through hands-on activities, song, art projects, and stories.

$75.00  
XLY 1179  
**News Casting, Gr. 6/7**  
Have you ever wanted to be a part of a newscast? Maybe you want to be a meteorologist or an anchor. Learn what it is like to be on a newscast team all the way from the reporting to the production.

$105.00  
XLY 1186  
**Amazing Art - Gr. 2/3**
Come and create all types of art projects. Make prints, books, paintings, leaf rubbings and anything else you can dream of. Be a part of our class as we explore the world of art.

$105.00
XLY 1187

Construction Junction, Gr. 6/7
Do you think that you can build a ten-foot tower structure out of newspaper? What about building something out of toothpicks that can hold 15 pounds? Come to Construction Junction and see if you can do these as well as a few other interesting projects.

$105.00
XLY 1188

Girl Talk: Navigating the Teen Years, Gr. 7 & 8
In this class teenage girls will discuss the joys and challenges facing young teens in today's world. Topics will include friendships, peer pressure, dating and successful dealings with parents and other adults. The class will be led by a school counselor who will have frank discussions and activities to help build a positive sense of self.

$45.00
XLY 1189

Shutterbugs & Crazy Chemistry, Grades 5-6
How does a camera work? What does a lens do? How does film capture light and store an image? A great hands-ON introduction to photography. Then - mix, mush and brew together different chemicals to create things that you can use in this hands-ON chemistry lab. Great take-homes and treats!

$105.00
XLY 1190

Machine Mania & Robotics, Grades 5-6
Find out how useful wedges, levers, and inclined planes can be in this hands-ON exploration of how simple machines help us with our daily lives. Then - it's off to the futuristic world of robotics! Learn about robot anatomy, understand robot fundamentals, and spend hands-ON time experimenting with super cool red-hot robots!

$105.00
XLY 1191

Animals, Plants, Sun, Water, and YOU!
Students will be examining the life of plants and animals in environmental communities. They will explore how living and non-living things are interdependent and how living organisms must adapt to survive. As students study the major biomes of the earth, they will investigate the relationships within the biosphere, an ecosystem, a population, and an organism. Through hands-on activities, students will explore the purpose of various animal adaptations.

$65.00
XLY 1192

Mad Messages & Jr. Engineers, Grades 5-6
Discover how to send secret messages to your friends using special codes! Become a "code cracker" detective. Then learn all about structures, investigate arches, and test loads as you put on an engineer's hat. Build a giant geodesic dome!
$105.00
XLY 1193

Nature and Earth Awareness, Grades 5-6
Play the nature scavenger hunt that combines science exploration with the animal kingdom! Then discover how science will help us protect our planet. Understand the basics of water pollution, acid rain, and the benefits of solar energy!

$105.00
XLY 1194

Advanced Castle Building, Gr. 4-9
Students will travel back in time to study, design and build Medieval Castles. We will watch video clips and History, Learning & Discovery Channel shows regarding castles, and study the way middle age warfare was conducted. We will examine working catapults and build paper castles. Students will also be able to create their own unique castles using advanced Lego & Mega Blocks-castle building sets. The class will conclude with the study and viewing of the middle ages myth, LadyHawke. Students are encouraged to do research before class including checking out library books regarding Middle Age Castles and/or printing off pictures and articles from the internet.

$115.00
XLY 1195

Advanced Egyptian Mummy Making Gr. 4-9
Students will travel back in time to study, design and build complete Egyptian mummies. We will watch video clips and History, Learning & Discovery Channel shows regarding ancient Egypt and study the reasons and ways Egyptian mummies were created. We will examine Egyptian artifacts, writing and in the end create individual or team created tombs, mummies, sarcophagus and canopic jars. Students will need to bring one 12-inch action figure or doll to be mummified and four small two-inch tall plastic containers (preferably film canisters for the body parts). Students are encouraged to do research before class including checking out library books regarding Ancient Egypt and mummies and/or printing off pictures and articles from the internet.

$115.00
XLY 1196

This, That & More, Gr. 2-3
Calling all scientists, thinkers and problem solvers. Each day will be an adventure into the world of strange science. Learn about geysers, ball of lightning, slime, silly putty, mirages and more. Each day use your thinking and problem solving in completing a challenging activity.

$115.00
XLY 1197

Game Factory, Gr. 4-5
The game is on! Join in as we explore games and their fairness through a simulation trip through the Game Factory. We will explore probability as we play a variety of games. Show what you have learned by designing your own fair game to play with your parents on the final day.

$115.00
XLY 1201

Supervised Lunch Break
Supervision is available at no charge during the lunch hour for students enrolled in both morning Adventurers and afternoon Talents classes. Students are required to bring a sack lunch and a drink.
$0.00
XLY 1204
Step-Discipline: What Does and Doesn't Work
Step-parenting is the most difficult dynamic that step couples face. The better you understand the principles of step-family discipline, the more productive your parenting will be in the step-family.

$11.00
XLY 1205
Reading Games for Young Children
Bend yourself into a letter shape or have an alphabet conversation and you will see that learning to read is fun. Join Miss Jackie and learn easy to do activities that are organized by elements of literacy that will help young children 2-5 years to be good readers. A must for parents of young children. Adults only please.

$12.00
XLY 1231
Exploring with Mother Goose II, Gr. K-1
Continue the exploration with new nursery rhymes. Find out if you can reach the moon with Hey Diddle Diddle. Practice telling time with Hickory Dickory Doc. Learn about spiders and determination with the Itsy Bitsy Spider. Each day will bring excitement and fun as we explore with Mother Goose.

$75.00
XLY 1232
Raising Responsible Kids by Using Household Chores and Allowance
Household allowance is a key to building your child's money management skills and can teach responsibility that can last a life time. Learn how to design an allowance program that is just right for your household no matter the ages of the kids or the amount of the family income.

$12.00
XLY 1233
From Innocence to Entitlement
A perfect class as we enter into the holiday season to curb our children's wants and open up their hearts for giving. This is for every parent who has heard their children have more "wants" and "give me's". The focus will be on how parents can implement easy to learn techniques into their parenting skills to ward off entitlement and raise responsible, respectful children.

$12.00
XLY 1234
Surviving the First Year of Parenting
If you are a first time expectant mom or dad, you'll want to check out this class filled with first hand tips and ideas about the first year of parenting. You'll have the opportunity to meet new friends and learn helpful advice in preparation for the arrival of your little one.

$12.00
XLY 1235
High Flyin' - Grades 6-8
Launch into an action packed day of flight and flying. Complete your flight log as you create rockets, airplanes and other flying contraptions. Successfully finish all
the challenges that await you and maybe you will be certified to take off!!!

$62.50
XLY 1236

Polyhedraville-City of the Future Grades 4-6
The year is 2106. You and a team of student architects have been hired to design a city of the future, using only polygons. Design and build a 3-d model of this futuristic city while staying within a budget of $100,000. Let your creative ideas flow as you become a futuristic architect in this design simulation.

$62.50
XLY 1237

Castle Building, Grades 5-8
Travel back in time to study, design and build Medieval Castles. You will watch video clips and History, Learning & Discovery Channel shows regarding castles and study the way middle age warfare was conducted. Examine working catapults, build paper castles. Then, create your own unique castles using advanced Lego and Mega Blocks - castle building sets. You are encouraged to do research before class including checking out library books regarding Middle Age Castles and/or printing Internet pictures and articles.

$62.50
XLY 1238

Storm Warning! Grades 6-8
Want to know how tornadoes form? What's an isobar? How does barometric pressure affect weather? Ever heard of weather forecast models? Learn about these topics and more through exciting, hand-on experiments, weather-related websites, projects and meteorological experts! Eligibility: Students must have an IEP (Individualized Education Plan) or have tested in the 98th percentile on an IQ test.

$150.00
XLY 1239

Wild Numbers! Grades 6-8
This course will allow students to explore and investigate mathematical topics not usually found in a traditional math curriculum. Many topics will be selected by the students! These might include Fibonacci numbers, tessellations, advanced logical processes, and even statistical modeling! Eligibility: Students must have an IEP (Individualized Education Plan) or have tested in the 98th percentile on an IQ test.

$150.00
XLY 1246

Calming the Chaos of an ADHD Household
ADHD can cause chaos in any household but it can also bring along many wonderful attributes when the energy is funneled in a positive direction. Meet with an ADHD Parent Coach for ideas of how to teach your ADHD child social skills, getting homework accomplished, getting the day organized, raising your child's self esteem and dealing with day to day issues that occur in an ADHD household. While every household is different, this class will explore options that can refuel all parents’ ideas toward making a calmer household and raising a more responsible child.

$12.00
XLY 1250

Stretch Your Thinking: Games, Puzzles and Brain Teasers, Gr. 6-7
Come join the fun of learning by playing! Students will work together to strengthen those critical thinking skills through classic mind-challenging games, puzzles and brainteasers.

$65.00
XLY 1256
Beginning Chinese, Grades 6-8
This course will focus on the fundamental study of Mandarin Chinese pronunciations, grammars and sentence patterns. Students will develop vocabularies, learn basic writings and communicate in functional conversations in a fun and challenging environment. (A book will need to be purchased for this class.) Eligibility: Students must have an IEP (Individualized Education Plan) or have tested in the 98th percentile on an IQ test.

$150.00
XLY 1257
Potential to Publish: eWriters, Grades 6-8
Love to write but tired of the "old school" way of doing things? Then join this exciting, motivated group of writers as we surf the web, read eZines and submit works of our own for publication. You don't want to miss this fast paced writing opportunity! Eligibility: Students must have an IEP (Individualized Education Plan) or have tested in the 98th percentile on an IQ test.

$150.00
XLY 1258
JCCC Evening Hands-ON Science Enrichment, Grades 3-6
Mad Science-KC sparks the imagination and curiosity of elementary age children by providing them with educational and entertaining activities that instill a clear understanding of what science is really about and how it affects the world around them. You will experience five topics: "Matter of Fact" Investigate the ingredients of the universe. Play alchemist by creating a chemical change right before your very eyes, and make your own take-home Mad Science Putty. "Optical Illusions" Build your own take-home periscope while learning about optics, reflection and sight. Watch celebrity images change before your very eyes. Seeing is not always believing... "Sonic Sounds" Discover sound, and how household items can be used to create amazing movie sound effects. Use our Mad Science VoiceBox to alter your very own voice; fun take-home. "Space...the Final Frontier" Your mission: to take an exciting look at planets, moons, comets, and stars. Boldly explore space and return from your mission with your take-home Roto-Rocket. "Tantalizing Taste" Map out your tongue's taste sensations. Compare your sense of smell with your sense of taste. Carbonate water for yummy pop and make a great-tasting take-home treat.

$75.00
XLY 1259
I Love You Too Much to Argue With You
Do you find yourself drawn into power struggles, bickering and arguing with your kids? Does it drain your energy? Do you want it to stop? Whether you have a small child or a teenager, come learn some tools and tactics to use that will put an end to the energy drain and a start toward more respect from your kids. This class promises practical techniques that parents can start using immediately as well as resources to rely on for years to come.

$12.00
XLY 1262
Becoming a "Love and Logic" Parent
Are you looking for a better way to parent? Ideal for parents of toddlers to teens as this class will offer and build weekly on better ways to communicate with your
children, create stronger family relationships, and raise the odds on raising a responsible child through learning how to set limits through enforceable statements, choices within those limits and consequences with empathy. Each week participants will build on the knowledge and experience of the week before while finding their parenting confidences grow!

$53.00  
XLY 1268  
Creative Problem Solving  
Have fun thinking outside the box! We will learn brainstorming techniques, solve problems and be challenged to think spontaneously. We will perform skits, build structures and use your sense of humor.

$65.00  
XLY 1269  
Raising a Lifelong Reader  
Research shows that parental involvement in a child's education is one of the strongest indicators of academic success. Learn ideas and activities (to share with your child 0-5 years) that create great readers.

$12.00  
XLY 1270  
Debate  
Learn the skills of public speaking, research and "thinking on your feet" as you explore topics of interest. You will learn debate techniques and fundamentals. Class will conclude with participation in an actual debate.

$65.00  
XLY 1271  
Debate, Gr. 6-7  
Learn the skills of public speaking, research and "thinking on your feet" as you explore topics of interest. You will learn debate techniques and fundamentals. Class will conclude with participation in an actual debate.

$115.00  
XLY 1272  
It's a Doggy Dog World, Gr. 4-5  
Calling all canine fans! Come enroll in this tail wagging course to learn about man's best friend. Students will discover popular AKC breeds, doggy care, ownership responsibility and dog training.

$65.00  
XLY 1273  
Pre-Algebra, Gr. 6-7  
This course has been designed for the review and advancement of basic pre-algebra concepts. Topics include integers, simplifying expressions, evaluating and solving equations and inequalities.

$115.00  
XLY 1274  
Drawing, Gr. 2-3  
Come join this drawing class and become a better artist. Students will focus on the elements of art and become better observers. Every student will have their
own sketchbook for pre-drawing skills as well as landscapes, portraits and still-life drawings.

$115.00

XLY 1275

An Apple a Day, Gr. K-1
Enjoy a literature based science and math exploration of nature’s perfect fruit. Follow Johnny Appleseed as he plants trees throughout the colonies. Watch the changing seasons affect the apple tree. Sing a collection of songs that build early reading skills, and cook, sample, and share some tasty treats.

$75.00

XLY 1276

Learning Through Literature, Gr. K-1
Use math and science skills to explore favorite children’s literature. Each day, a different book will be used as a focus for discoveries in problem solving and language expression through games and creative activities.

$75.00

XLY 1277

Bookin' & Cookin', Gr. 2-3
Do you like trying new recipes? Come explore some great books and fun recipes to go along with them. We’re not just talking food, either. We’ll do all sorts of cooking in this class! Note: Children will not operate any equipment.

$65.00

XLY 1278

Creativity, Gr. 2-3
Do you like to think up wild and crazy ideas? Do you like to make things? Do you like to read imaginative books? Then this class is for you! Let your creative juices flow as we learn about creativity. We’ll share some great books and have a blast creating something new each day.

$65.00

XLY 1279

Inventions, Gr. 2-3
Do you look at a cardboard box and see a space ship? Do you look at old newspaper and see a hat or a sailboat? Could you design a game using only five recycled materials? Ideas will flow as we explore the topic of inventions. Join us as we study famous inventors and explore the world of inventions.

$65.00

XLY 1280

Fairy Tale Fun, Gr. 2-3
Sleeping Beauty, the Three Little Pigs and more! Join us as we explore the fairy tale characters and their stories. We’ll make masks, put on plays and create a fairy tale city.

$65.00

XLY 1281

Smileyburg-The Town You Create, Gr. 2-3
Come create a town that only you can call home. Make townspeople and give them names and jobs, decide what they are going to look like, buy materials and
build your own home and a place to work. Design the streets of your town...where will houses and businesses go, what about that water park you wanted to build? Come do all of this in the miniature town of Smileyburg!

$65.00  
XLY 1282  
Creative Capers, Gr. 4-5  
Let your creative juices flow as we learn about creativity. Do you like to think up wild and crazy ideas? Do you like to make things? Then this class is for you! We'll share some great books and have a blast creating something new each day.

$65.00  
XLY 1283  
Invention Mania, Gr. 4-5  
Ideas will flow as we explore the topic of inventions. Who are some famous inventors and their inventions? Could you design a game using only five recycled materials? Join us as we explore the world of inventions.

$65.00  
XLY 1284  
Fairy Tale Fun, Gr. 4-5  
Sleeping Beauty, the Three Little Pigs and more! Join us as we explore the fairy tale characters and their stories. We'll make masks, put on plays and create a fairy tale city.

$65.00  
XLY 1285  
Petmania-Exploring Pet Ownership, Gr. 4-5  
Have you always wanted to own a pet? Explore the responsibilities and options of pet ownership. Complete activities on the costs of owning a pet and picking the right pet for you.

$65.00  
XLY 1286  
Computer Projects, Gr. 6-7  
Create magnets, decals, posters and more on the computer. You will use your creative side to create these fun projects.

$65.00  
XLY 2003  
Writing Wrinkles, Gr. 4-5  
If you really like to write, join us and try a new "wrinkle" of written expression. We will sample different types of writing experiences...poetry, myths, fables, fairy tales, summaries, scripts, etc. You'll participate in group activities and produce an individual project.

$115.00  
XLY 2005  
W-H-A-M (Writing in Harmony, Art & Music), Gr. 2-3  
Do you like to make up stories, draw, and listen to music? We will focus activities around a theme for each day...Animals, Hats, Fairy Tales and others. Come and join us as we read and write, draw and color, listen and make music.
Game Factory
"Play Fair!" But are games always fair? In this class, you, will use all of your math skills to study probability and determine "fairness" in games. Working in pairs, you will explore whether games are fair, modify them when needed, and design your own fair game to share with the class. All this, while reinforcing your skills in addition, subtraction, multiplication, division, and fractions.

Creative Problem Solving
Have fun thinking outside the box! We will learn brainstorming techniques, solve problems and be challenged to think spontaneously. We will perform skits, build structures and use your sense of humor.

Music Technology and You, Gr. 8-9
Do you love music...and computers, too? Spend two weeks at a MIDI computerized work station learning the hardware and software currently used to produce music. You'll learn to operate a workstation capable of digitally recording 32 tracks of music utilizing over 1500 present instruments via the synthesizer. Course conclusion will feature a concert of student compositions.

Mock Trial Experience, Gr. 6-7
Be part of a courtroom drama. Learn the criminal justice system's procedures, processes, and roles so you can actively participate in a mock trial, playing judge, lawyer or witness. Speakers from related professions and a field trip, too!

Comedy Improv! (CRN 50198-Gr 6-7, CRN 50214-Gr 8-9)
Thinking on your feet creatively is the hallmark of improvisation...fine tune your creative skills and practice tickling funny bones in this fast paced, fun adventure. You'll enjoy learning games that will help with characterization, movement, and plot development. Class finale will feature an improv performance.

E.O.A.S. Earth, Oceans, Atmosphere, Space, Gr. 6-7
Students will use the internet, videos and websites to learn and apply information about earth, oceans, atmosphere and space. Students will prepare related presentations and websites to apply their knowledge.

Exploring Veterinary Medicine and Other Animal Careers, Gr. 6-7
Do you love animals? Have you thought about working with animals as a career? In this seminar overview course, explore some of the exciting options available for a career working with animals. Field trips and guest speakers will be scheduled.
when possible as we "go to the dogs."

$115.00
XLY 2084

To Be or Not To Be
Join us and learn some techniques that could launch you on a stage career. Through improvisation, charades, scene work and acting games you'll become comfortable stepping into fictional roles. You'll also learn the basics of stage make-up application...this could be a real plus next Halloween.

$115.00
XLY 2100

Space Command - Space Travel, Gr. 4-5
Take a trip into outer space. Learn about the solar system and the vehicles that are used to explore it. Design a lunar lander and a moon colony as we travel to the moon.

$65.00
XLY 2109

Maz-zles
You'll develop and experiment with age-appropriate puzzles and mazes. Using your own designs, you'll join Jan Miller, a nationally recognized teacher, for a foray into fun with critical thinking.

$115.00
XLY 2119

Creative Problem Solving in Mathematics, Gr. 6-7
This class is for students who love a math challenge and math competition. Take this opportunity to analyze fundamental problem solving techniques as applied to mathematics. Through a variety of whole-class lessons, individual projects and team competition, students will learn to apply the techniques to a wide variety of math problems.

$115.00
XLY 2122

Bugs, Bugs, Bugs, Gr. K-1
Come explore the exciting world of bugs. Children will learn all about insects and other creepy crawlies as they get involved in reading, writing, math, art and science activities. We will learn about interesting bugs from around the world as well as explore our own backyards.

$75.00
XLY 2138

Archeological Restorations
Students will be cleaning, polishing and restoring a myriad of antique brass, copper, and silver projects used in the archeology classes. Some of the objects you'll be working with are a brass/copper fire extinguisher and brass electric fan from the 1930's, silver dishes, brass buttons, etc. A before and after picture will be taken to show the progress made during the session. Students should bring work gloves, a cover-up shirt and polishing rags.

$105.00
XLY 2140
Cashflow 101
Get ready to explore the concepts of money by using hands-on activities to learn how to be financially intelligent. You'll learn a glossary of financial terms, and how to figure your assets and liabilities, income and expenses. Use all your new found knowledge to play the game Cashflow 101, which makes getting out of debt fun!

$115.00
XLY 2141

Exploring Veterinary Medicine II
Continuing your exploration into the world of veterinarians and other people who work with animals. Explore large animal medicine and other career opportunities. Field trips and guest speakers will be included. Prerequisite: Exploring Vet Medicine I.

$55.00
XLY 2147

Life as a Marionette, Gr. 4-5
Join us as we create an "artful" story. You'll use your creativity and imagination to create a plot, scenes and yes, the marionettes to complete the story. You'll fashion wire, paint and papier-mache into your own fantastic story.

$115.00
XLY 2149

Egyptology, Gr. 2-3
Explore the world of Egypt. Discover the secrets of mummification and take an archeological expedition into a pyramid. Learn to add using Egyptian symbols for numbers and send a letter to a friend inviting them to share an Egyptian meal. This wonderful hands-on history/archeology class will include some time on computers.

$115.00
XLY 2150

After Class Activities
The Carlsen Center After Class Activities is a college-supervised activity for students enrolled only in the following programs: TALENTS!, JCCC Adventurers, Science Adventurers, Special Interests and Summer Academy.

$25.00
XLY 2152

Archeology/Advanced Archeology
This class is for first-time Archeology students and returning Archeology veterans. Working with our collection of 8,000 archeological artifacts from railroad and mine sites in the Arapaho National Forest, we will learn and review the 10 steps of the archeological process. This class will focus on the sorting and cleaning of newly recovered artifacts, the reconstruction of glass and pottery pieces and the reorganization of the Archeology Treasure Chest which includes our most valuable and rare artifacts. Bring work gloves, 5-10 old towels and 2-5 old brushes (toothbrushes are great).

$115.00
XLY 2153

Math Safari, Gr. K-1
Come practice your math skills while counting crocodiles and sorting bears. Every day will be an exciting math adventure when we explore math and reading with fun activities.
Sensational Science
Students will use their five senses to explore daily science activities. Students will gain insight through hands on activities such as mystery boxes, observations, literature and games.

Splish, Splash
Explore the water world with us! Come get wet as we get involved in water related activities. We will explore the ocean and ocean animals, learn about our earth's water cycle, experiment with soap and bubbles, and construct and race boats. Children will be involved in a variety of activities that build reading, science and research skills.

Collage Art
In this class you will express ideas in the full range of this creative medium. We will focus on masters of art that created collage along with some new ideas in collage.

It’s All Greek To Me
Why do flowers bloom in spring? What was Hercules' sixth labor? Find out the answers to these questions and more as you travel through the world of Greek Mythology. Use your creativity to create your own monster or devise a plan to kill Medusa while on your very own odyssey.

Choc-a-lot, Gr. 4-5
Using this favorite sweet as a springboard for a variety of activities, students will study the history of chocolate, design original puzzles, stories, games, and make chocolate candy. Expect chocolate surprises!

Amazing Planet, Gr. 4-5
Join us as we explore the many wonders of our amazing planet. You'll take a journey on the rock cycle, experience cupcake geology, research the biodiversity and the need for conservation while taking part in games, creative writing, craft activities and tasty snacks.

Exploring Architecture, Gr. 4-5
Come and explore the field of architecture. You'll enjoy lots of hands-on, creative activities as you investigate what makes buildings strong and interesting to look at. Your creativity will get a workout as you plan your very own building design.
Mars City
Join a team of scientists to develop the first human habitation on Mars! You will learn all about the red planet and apply your critical and creative thinking skills to create plans for a functioning colony.

ACT/SAT Vocabulary & Essay Writing (CRN 50180 & 50200-Gr 6-7, CRN 50212-Gr 8-9)
Students will learn upper level vocabulary through a variety of activities such as puzzles, games, worksheets and interactive websites. Sentence and essay writing will help prepare students for college entrance tests.

Science Fair
Students will create their own mini science experience. You will decide what you would like your experiment to test, learn about controlling the variables and collecting data as you test your hypothesis.

Comedy Improv II
A description is not available for this course.

Algebra Review
This course has been designed for the review and advancement of basic algebra concepts. Topics include simplifying expressions, evaluating and solving equations and inequalities, and graphing linear equations.

Enchanted Castle
Visit your favorite fairy tale characters and you enter the world of enchantment. Develop critical thinking skills as you decide if the Big Bad Wolf was really bad or if Snow White should have taken the apple from a stranger. Apply your own creative writing skills as you develop your own fractured fairy tale.

Be An Inventor
Come and be an inventor! Make a catapult or a landing pad for an egg. Use your mind and create wonderful "things" out of ordinary stuff!

Discover Science Olympiad
If you've ever wondered what Science Olympiad is all about, now is your chance
to find out. We will work with as many events as possible. Mystery architecture and science crime busters are just a couple of the possibilities.

$115.00
XLY 2169

Deal 'Em Up!
You will learn the basic rules for card games of all levels, beginning with classics like solitaire and speed. Our strategic problem solving skills will be challenged as we learn the ins and outs of games such as pitch, gin rummy and hearts. Eventually, students will create their own card games using their new knowledge and skills.

$115.00
XLY 2170

Book-in-the-Box
Are you a Harry Potter fan or do you prefer Junie B. Jones or The Hobbit? Whatever your literary taste, bring your favorite fiction book and a shoebox. We will enjoy developing word puzzles, mazes, stories and games based on your book.

$115.00
XLY 2171

Picasso and Matisse Gr 2-3
Artists Picasso and Matisse had completely different styles, but are always compared to one another. Learn about two great modern masters and create art in their style.

$115.00
XLY 2172

Tease Your Brain!, Gr. 4-5
Twist, twist and tease your problem-solving skills as you work challenging brainteasers. We'll include mathematical, spatial and language puzzles for individual, team and group challenges. Also, try your skills at creating your own puzzles in this fun, interactive class.

$115.00
XLY 2173

Authors Wanted, Gr. 4-5
Create an impressive, hardback book with your original text and illustrations. After you've selected or written a favorite story and completed accompanying illustrations or graphics, you'll learn step-by-step how to create a professional-looking book. Join other junior authors for an unforgettable experience!

$115.00
XLY 2174

Masters of the Night - "The Owl"
Learn more about the owls of Kansas: Whoo they are, their habitat, and their amazing adaptations. Dissect an owl pellet to learn more about the legendary owl. Enjoy a field trip while listening to naturalists describe these remarkable nocturnal creatures.

$115.00
XLY 2175
Castle Building 101
Students will travel back in time to study, design and build Medieval Castles. We will watch video clips regarding castles and study the way middle age warfare was conducted. We will examine working catapults, build paper castles and in the end create a team designed and constructed sugar cube castle. Students are encouraged to do research before class including checking out library books regarding Middle Age Castles and/or printing off color pictures and articles from the internet.

$65.00
XLY 2176

Zooland-Design a Zoo
Apply your creative talents as you design your own zoo. Develop an understanding of wild animals and their needs. Choose the most interesting animals as you develop a map of the perfect zoo.

$65.00
XLY 2177

Eco Columns
In eco-columns you will create and maintain your own ecosystem. Create a living environment with fish, plants, and grass, all in an enclosed ecosystem.

$65.00
XLY 2178

Fun Flying
Students will examine, study, create and play with things that fly. We will watch video clips regarding gliding, flying and space flight. We will examine, create, build and work with Parachutes, Propellers, Balloons, Frisbees, Paper Airplanes, Gliders, Water Rockets, Kites and Air Rockets. Students should bring any flying toys or items listed above that they already own. Students are encouraged to do research before class including checking out library books regarding flight, lift, balloons, or any of the items listed above and/or printing off color pictures and articles from the internet.

$65.00
XLY 2179

Zooland-World of Animals
Explore the wonderful world of wild animals and zoos. Learn about the habitats and characteristics of your favorite animals as we explore zoos. Create a game about your animal and see if you can follow the clues for the mystery animal of the day.

$65.00
XLY 2180

Zooland-World of Animals
Explore the wonderful world of wild animals and zoos. Learn about the habitats and characteristics of your favorite animals as we explore zoos. Create a game about your animal and see if you can follow the clues for the mystery animal of the day.

$65.00
XLY 2181

Adventures in Nature
Learn what it would be like to be a tree, animal, stream, or maybe a rock; be a part of a fossil dig as we uncover fossils from when Kansas was an inland sea.
Adventure into the environment that surrounds you.

$65.00

XLY 2182

Making Egyptian Mummies
Students will travel back in time to study, design and build Complete Egyptian Mummies. We will watch video clips regarding Ancient Egypt and study the reasons and ways Egyptian Mummies were created. We will examine Egyptian artifacts, writing and in the end create individual or team created tombs, mummies, sarcophagus, and canopic jars. Students will need to bring one 12” action figure or doll to be mummified and four small 2” tall plastic containers (preferably film canisters for the body parts). Students are encouraged to do research before class including checking out library books regarding Ancient Egypt and Mummies and/or printing off color pictures and articles from the internet.

$65.00

XLY 2183

Rainforest Rendezvous, Gr. 2-3
Come enjoy the magical world of the rainforest. Learn about lemurs, monkeys, birds, and all the animals that make up the rainforest. Take an interactive trip into a rainforest to see all secrets that it hides. Learn to make your favorite animals and plants as you create a rainforest that will fill the room!

$65.00

XLY 2184

Space Command-Exploring Planet X, Gr. 4-5
A new planet has been discovered. Be creative as you design and explore a brand new planet. Analyze rocks and samples of the planet's surface. Map the planet's location as you announce to the world your newest discovery.

$75.00

XLY 2186

Bakin' Up Good English Stuff!, Gr. 2-3
Students will prepare summer fun recipes and become tasting critics. These tasting critics will share their personal opinion on great recipes by using good verbal structure and proper standard writing skills in paragraph form.

$65.00

XLY 2187

Smart Money, Gr. 6-7
Handle your own checking account, pay bills, earn money, invest and learn about charge card debt. You will be given the task of managing your own income and making spending decisions. This "real world" experience will affect you for the rest of your financial life.

$65.00
Exploring Careers: Thinking Beyond High School!, Gr. 6-7
This class will allow students to explore the world of careers! Discover a variety of careers and what careers interest you. Students will learn more about themselves and apply what they learn to possible future career options. This course will include use of a computer, guest speakers, and energizing group activities.

$65.00

From Atoms to Volcanoes, Gr. 6-7
Explore how you interact with the world from atoms to volcanoes. We will use everyday items as manipulatives for this exciting hands-on program.

$65.00

Weathering the Weather, Gr. 4-5
Take a look at the world of weather and the recent changes we've seen this year. Students will study the different types of weather from tsunamis to tornadoes through the study of plate tectonics and environment.

$65.00

Exploring the Rain Forest, Gr. 2-3
Join us in this exciting hands-on class where we will do experiments, explore the habitats, taste food and answer the question-Why Should We Save the Rain Forest?

$115.00

Summer Academy Gr 2-7
Summer Academy offers a full-day program that includes an science, board games, computer, team building and brain teaser module each day. A supervised hot lunch is included in the Academy fee.

$170.00

Summer Academy Gr 2-7
Summer Academy offers a full-day program that includes an art, computer, physical education and brain teaser module each day. A supervised hot lunch is included in the Academy fee.

$170.00

Summer Academy Jump Start, Gr. K-1
New this summer for Kindergarten through First Grade students! Choose either a morning or afternoon session of fun-filled reading and math activities.

$69.00

Solving Discipline Problems at Home
Develop your own home discipline plan. You will learn not only what you need to
do when your children misbehave, but you will also learn how to teach your children the rewards of behaving responsibly.

$82.00

**XLY 5008**

**Caring for Children**
You'll learn how to keep children safe, how to create an effective learning environment in your home, how to encourage healthy habits, and how to promote physical activity. You'll also learn quick and easy ways to give yourself time to re-connect and meet your own needs.

$82.00

**Student Handbook**

**Faculty and Staff**

- **Ali Abderrezak**
  - Asst. Prof. Economics
  - M.A., Ph.D., Kansas State University
  - Foreign, B.A - University of Constantine, Alg.

- **Larry Able**
  - Prog. Dir. Bus Dev/Trades P S
  - B.A., Univ of Texas/Arlington
  - M.S., Baker University

- **Margaret Ackelson**
  - Professor Learning Strat.
  - B.A., MidAmerica Nazarene Univ
  - M.A., Univ of Missouri - Kansas City

- **Emily Akins**
  - RR Welding Trainer
  - A.S., San Jacinto College North

- **Mazen Akkam**
  - Prof./CPF Info.Tech. & Elec.
  - B.S., M.S., Kansas State University

- **Ateegh Al-Arabi**
  - Professor Science
  - M.S., University of Dayton
  - Foreign, B.S. - University of El-Fathe, Libya
  - Ph.D., University of Dublin, Ireland

- **Robyn Albano**
  - Interior Services Coord.
  - B.S., Univ of Nebraska - Linclon

- **Daniel Alexander**
  - Professor English
  - B.A., M.A., Oklahoma State University

- **Michael Alley**
  - Prog. Dir. Carlsen Ctr Sls/Mkt
  - A.A., Johnson County Comm College
  - B.A., Univ of Missouri - Kansas City
Luz Alvarez  
Assoc. Prof. Foreign Language  
M.A., M.A., University of Kansas  
Foreign, BA Universidad Cuauhtemoc, Mexico

Betty Anastasio  
Prog. Dir. Cont. Trng/Econ Dev  
B.S., Fairleigh Dickinson University

Marcanne Andersen  
Asst. Dean Spch/Lang/Acad Enhc  
B.S., University of Wisconsin  
M.A., Minnesota State University

Jeffrey Anderson  
Counselor  
B.A., M.A., University of Northern Iowa

Megan Anderson  
Assoc. Prof. Power Plant Tech.  
B.S.C.E., Kansas State University  
M.B.A., Baker University

Rebecca Anderson  
Professor Speech  
B.S., M.A., Southwest Missouri State Univ

Lowry Anderson Jr  
Professor English  
B.A., Baker University  
M.S., University of Kansas

Susan Annen  
Professor Hospitality Mgmt.  
B.S., University of Wisconsin - Stout

James Antle  
Assoc. Prof. History  
A.A., Lee College  
B.A., Angelo State University  
M.A., Arizona State Univ  
Ph.D., University of Kansas

Dennis Arjo  
Assoc. Prof. Philosophy  
B.A., University of California - Santa Cruz  
M.A., University of Colorado - Boulder  
Ph.D., University of California - Santa Barbara

Renee Arnett  
Counselor  
B.S., Loyola University of Chicago  
M.S., Emporia State University  
M.S., Univ of Missouri - Kansas City

Susan Arreguin  
Articulation Dev/Trans. Coord.  
B.S.E.E., Kansas State University

Ona Ashley  
Assoc. Prof. Hospitality Mgmt.  
B.S., Pittsburgh State University
Jonathan Bacon
B.A., M.A., Michigan State University

Brian Badger
Assoc. Prof. Info. Technology
B.S., Central Missouri State Univ

Gerald Baird
Exec. VP Admin. Services
B.S., M.Ed., Ph.D., Univ of Nebraska - Lincoln

Lillianna Bajich-Bock
Counselor
B.S., M.S., Kansas State University

Brian Balman
Professor Mathematics
B.S., Calvary Bible College
M.A., Fort Hays State University

Rhonda Barlow
Assoc. Prof. Mathematics
B.S., M.S., Univ of Central Oklahoma

John Barnes
Professor Metal Fab./Welding
B.S., Metropolitan State College

Charles Barnett
Sr. Support Analyst
B.A., M.B.A., MidAmerica Nazarene Univ

Brian Baumgardner
Professor Science
A.A., Johnson County Comm College
B.S., Pittsburg State University
D.D.S., Univ of Missouri - Kansas City

Meghan Beach
Asst. Prof. Cosmetology

Stuart Beals
Professor Interactive Media
B.A., M.A., University of Kansas

Robert Beasley
TV Producer/Director
B.A., Oklahoma State University - Stillwater

Lynne Beatty
Professor Science
B.S., Murray State University
M.S., Southern Illinois University - Carbondale

Joni Becker
Development Coordinator
A.A., Johnson County Comm College
B.G.S., University of Kansas

Robert Becker
Systems Programmer/Analyst
B.S., Rockhurst University

**Michael Beene**
Faculty Dev. Coord.
A.S., Fort Scott Community College
B.S., M.S., Kansas State University

**Zohreh Behbehani**
Professor Business Admin.
L.L.M., Univ of Missouri - Kansas City
L.L.B., University of Tehran

**Kenneth Behrmann**
Box Office Manager
B.A., M.A., Univ of Missouri - Kansas City

**Peter Belk**
Prog. Dir. Admissions
B.B.A., Missouri Southern State Univ
M.A., Univ of Missouri - Kansas City

**William Benjamin**
Professor/CPF Fire Science
B.S., M.S., Central Missouri State Univ

**James Bennett**
Professor HVAC
B.S., University of Kansas

**Sean Bergman**
Asst. Technical Director
B.A., University of Kansas

**Roslyn Bethke**
Professor Reading/Acad Ach Ctr
B.A., Fort Hays State University
M.S., University of Kansas

**Mary Jean Billingsley**
Prog. Dir. Career Services Ctr
B.S., M.Ed., Univ of Missouri - Columbia

**Jeffrey Blodig**
Asst. Prof. Science
B.S., University of Kansas
M.S., Fort Hays State University

**Robin Boley**
Campus Svcs. Info. Coord.
B.A., MidAmerica Nazarene Univ

**Stacy Boline**
College Info Writer/Editor
B.S., Kansas State University

**Amy Bonham**
Counselor
B.S., Kansas State University
M.S., Emporia State University

**Mitchell Borchers**
Dir. Purchasing
Marilyn Bottrell  
Sr. Buyer  
B.S., Univ of Nebraska - Kearney

Roger Box  
Professor Electronics  
B.S., M.S., Pittsburg State University

Brenda Boyd  
Dir. Student Development  
B.S.E., University of Kansas  
M.S., Southwest Missouri State Univ

Gary Boyd  
Sr. Programmer/Analyst  
B.S., M.A., Southwest Missouri State Univ

Sarah Boyle  
Asst. Prof. History  
B.A., American University  
M.A., Ph.D., SUNY at Binghamton

Janet Brandau  
Prog. Dir. Test Ser & Asmt Otr  
B.A., M.A., University Northern Colorado

Robert Brannan Jr  
Professor English  
B.A., Univ of Missouri - Kansas City  
M.A., Iowa State University

Shirley Brazil  
Professor Graphic Design  
B.A., Avila College  
M.A., University of Kansas

Alicia Bredehoeft  
Counselor  
B.A., M.Ed., Univ of Missouri - Columbia

Debra Brewer  
Financial Aid Accountant  
B.S., Univ of Missouri - Columbia

Regina Brewer  
Mkt. & Surv. Research Analyst  
B.S.E., M.A., Arkansas State University

Constance Brickner  
Benefits Specialist  
B.S., Emporia State University  
M.A., Webster University

Shawn Broderick  
Asst. Prof. Intrprtr Trng  
B.A., Seattle University  
M.A., Gallaudet University

Andrea Broomfield  
Assoc. Prof. English
B.A., M.A., University of Kansas
Ph.D., Temple University

Jim Brown
Sr. Support Analyst
B.A., Jacksonville St University

John Brown
Asst. Dean Ind. Tech. Prgms
B.S., M.S., Pittsburg State University

Susan Brown
Professor Physical Ed
B.S., Kansas State University
M.S.Ed., University of Kansas

Wayne Brown
Chief Information Officer
A.A.S., B.S., M.B.A., Wayland Baptist University
Ed.S., Ph.D., Nova Southeastern University

William Brown
Assoc. Prof. Auto Tch YAATC
A.A., Johnson County Comm College
B.S., Pittsburg State University

Mark Browning
Professor English
B.A., William Jewell College
M.A., Univ of Missouri - Kansas City
Ph.D., University of Kansas

John Buchanan
Counselor
B.A., Univ of Missouri - Columbia
M.A., Univ of Missouri - Kansas City

William Buese
Professor/Trainer
B.S.E., M.S., Central Missouri State Univ

Betty Bullock
Assoc. Prof. Sociology
B.A., Baker University
M.A., Ph.D., University of Kansas

Newnan Burch
Professor/CPF Electronics
B.A., Hendrix College
B.S.C.E., M.S.C.E., University of Arkansas

C Burgess
Asst. Dean HPER
B.A., McPherson College
M.S., University of Kansas

John Burton
Asst. Dean RR Operations
A.A., Central Texas College
A.A., Metropolitan Community College - KC
B.S., SUNY at Albany
M.S., Kansas State University
Wayne Busse
Mgr. Maintenance & Operations

Donnie Byers
Professor Science
B.A., Knox College
M.S., Michigan State University

Nancy Byram
Bookstore Accountant
B.S., Kansas State University
M.B.A., Keller Grad School of Mgmt

Gayle Callahan
B.S., Pittsburg State University
M.B.A., University of Kansas

Terry Callihan
Assoc. Prof. Dental Hygiene
A.S., Johnson County Comm College
A.A.S., Penn Valley Comm College
B.S., M.S., Univ of Missouri - Kansas City

Carol Campbell
Professor/Librarian
B.A., University of Virginia
M.L., University of Washington

Donald Campbell
Mgr. Network Comm.
B.S., Ohio State University
M.S., Northwestern University - Evanston

Gloria Campbell
Counselor
A.A., Ottumwa Heights College
B.S., Emporia State University
M.S.Ed., University of Kansas

Kevin Cannell
Assoc. Prof. Science
B.S., Millikin University
M.S., North Carolina State Univ

Felicia Canow
Asst. Prof. English
B.A., M.A., Univ of Missouri - Kansas City

Robert Carney
Assoc. Prof. Info. Technology
B.S., Southwest Missouri State Univ
M.B.A., Univ of Missouri - Kansas City

Nancy Carpenter
Professor Mathematics
B.S., Elizabethtown College
M.A., Univ of Missouri - Kansas City

Dana Carr
Counselor
A.A., Johnson County Comm College
B.S.E.,M.A.,M.S., University of Kansas

Stephen Carr
Professor/CPF Auto Tech.
B.A., Hanover College
B.S., University of Wyoming
M.A., Purdue University

Deborah Carrier
Professor/Coach
B.S.,M.B.A., Emporia State University
M.S., Northern Montana College

Kathy Carver
Professor Nursing
B.S.N., Washburn University
M.N., University of Kansas

Patrick Casey
Mgr. Media Services
B.S., Kansas State University

Becky Centlivre-Meinke
Mgr. Employment Services
A.A., Washburn University
B.A.,M.A., MidAmerica Nazarene Univ

John Chapman
Professor Info. Sys.
B.S., Univ of Missouri - Kansas City
M.S., Kansas State University

Isabelle Chen
Assoc. Prof. Computer Science
M.S., Texas A&M University
Foreign , BA - Tamkang University

Shu-Dong Chen
Assoc. Prof. Humanities
M.A.,Ph.D., University of Kansas
Foreign , BA - Jilin University, China

John Chorn
Asst. Prof. Science
B.A., Drury College
M.A., University of Kansas
Ph.D., University of Kansas

Penny Chura
Professor Nursing
B.S.N., Washburn University
M.N.,Ph.D., University of Kansas

Michelle K Clark
Asst. Prof. Science
B.S., Arizona State Univ - main
M.S., Purdue University

Vincent Clark
Professor History
B.A., Pacific Union College
M.A., Loma Linda University
Ph.D., University of California - Riverside

Thomas Clayton
Insurance & Risk Manager
A.A., Maple Woods Community College
B.A., Univ of Missouri - Kansas City
M.B.A., Baker University

Donald Clegg
Professor Mathematics
B.S., Bethany Nazarene College
M.A., University of Oklahoma

Lydia Cline
Professor Drafting
B.A., Iowa State University

Charlyn Cloud
Professor Respiratory Care
B.A., Cornell College

Percy Cody
Assoc. Prof. Electronics
B.S.E.E., University of Kansas
M.S., Naval Postgraduate School

Kenneth Coffey
Asst. Dean Business
A.A., Pueblo Junior College
B.A.,M.A., University of Northern Colorado

Linda Cole
Prog. Dir. Public Events

Lisa Cole
Assoc. Prof. Accounting
B.S., Southwest Missouri State Univ
M.S., Univ of Missouri - Kansas City

Omar Conrad
Asst. Professor Philosophy
B.A.,M.A.,M.A., University of Kansas

Gary Cook
B.S., University of Wisconsin

Julianne Cooper
Prog. Dir. Financial Aid
B.A., San Francisco State University
M.S.,M.S., Emporia State University

Cody Copeland
Professor Pers. Comp. Appl.
B.S., University of Arizona
M.Ed., University of Wyoming

Douglas Copeland
Professor Economics
B.A.,M.A., Univ of Missouri - Kansas City
Sally Copeland
Professor Mathematics
A.A., Johnson County Comm College
B.A., M.S.Ed., University of Kansas

Jill Coppess
Assoc. Prof. Graphic Design
B.F.A., Kansas City Art Institute

Susan Cordes
Assoc. Prof. Accounting
B.S., M.B.A., Kansas State University

Elizabeth Corriston
Asst. Prof. Math Resource Ctr.
B.S., Morningside College
M.A., Univ of Missouri - Kansas City

Julia Cotter
Professor Fash. Merch./Design
B.S., Univ of Missouri - Columbia
M.S., University of Kansas

Jeffrey Couch
Prog. Coord. IEP
B.S., M.A., Central Missouri State Univ

John Courtney
Professor/CPF Hosp. Mgmt.
B.S., M.S., Mississippi Valley State Univ
Emeritus,

Marsha Cousino
Assoc. Prof./Librarian
B.A., Kansas State University
M.L.S., Univ of Michigan - Ann Arbor

Mark Cowardin
Asst. Prof. Fine Arts
B.F.A., University of Kansas
M.F.A., University of Arizona

Kristen Cox
Accountant
A.A., Manchester College
B.B.S., Indiana University South Bend

Julane Crabtree
Professor Mathematics
B.S., M.A., West Virginia University

Clarissa Craig
Asst. Dean Respiratory Care
A.S., Penn Valley Comm College
B.S., Rockhurst University
M.A., Univ of Missouri - Kansas City
Ph.D., Univ of Nebraska - Lincoln

Linda Creason
Assoc. Prof. Read/Acad Ach Ctr
B.A., M.S., Avila College
Ph.D., Univ of Missouri - Kansas City
Michael Culey  
Systems Programmer/Analyst  
A.A.S., Johnson County Comm College

Jan Cummings  
Professor/CPF Interior Design  
B.S., William Woods College  
M.S., Kansas State University

Robert Cundith  
College Info Writer/Editor  
M.A., Wichita State University

Timothy Curry  
College Info Writer/Editor  
B.A., Rockhurst University  
M.A., University of Kansas

Mark Daganaar  
Dir. Library  
B.A., Midland Lutheran College  
M.A., Lutheran School of Theology  
M.L.S., Univ of Missouri - Columbia

Sean Daley  
Asst. Prof. Anthropology  
B.A., Rutgers St Univ of New Jersey  
M.A., University of Arizona  
Ph.D., University of Connecticut

David Davis  
Professor English  
B.A., Coe College  
M.A., University of Kansas

Karen Davis  
Web Editor  
B.A., Knox College

Margaret Davis  
Assoc. Prof. Drafting  
A.A., Centenary College For Women - Hackettstown, NJ  
A.A., Johnson County Community College  
B.A., Ottawa University

Dennis Day  
VP Student Services  
B.S.,M.S., Southwest Missouri State Univ  
Ph.D., University of Kansas

Kami Day  
Assoc. Prof. English  
B.A., University of Utah  
M.S., Cameron University  
Ph.D., Indiana Univ of Pennsylvania

Mary Deas  
Assoc. Prof. Mathematics  
B.S.,M.Ed., South Carolina State College

Paul Decelles  
Assoc. Prof. Science
B.S., Cornell University
M.S., University of Georgia
Ph.D., University of Kansas

Jeanne DeHaan
Asst. Prof. Science
B.S., Ursinus College
M.Phil.,Ph.D., Syracuse University

James Dice
HPER Facility & Clinic Coord.
B.A., Univ of Missouri - Kansas City
M.B.A., University of Saint Mary

Mary Dickerson
Mgr. Standardized Testing
B.S., Kansas State University

Joseph DiCostanzo
Asst. Dean Mathematics
B.A., Washington and Jeffrson Coll
M.Ed., University of Pittsburgh

Dennis Distler
Sr. Network Analyst

James Divney
Professor Soc/Anthropology
B.A., Adams State College
M.A., University Northern Colorado
M.Phil.,Ph.D., University of Kansas

Larry Dixon
Mgr. Public Safety
A.A., Johnson County Comm College
B.A., Avila University
M.A., Ottawa University

Geraldine Dotson
Asst. Prof. Mathematics
B.S., Univ of Central Oklahoma
M.A., University of Kansas

Kristin Downing
Counselor
B.A.,M.S., Emporia State University

Holly Dressler
Access Svc Adv/Prog. Fac.
B.S., University of Illinois - Urbana - Champaign
M.S.Ed., Southern Illinois University - Carbondale

James Drone
Sr. Support Analyst
B.S., Emporia State University

Donna Duffey
Professor/CPF Mktg, Mgmt, Entr
B.S., Wisconsin State University
M.B.A.,M.S., Baker University

Colleen Duggan
Professor Nursing
B.S.N., Northern Illinois University
M.S.N., St. Louis University

David Dumler
Programmer Analyst
B.A., University of Kansas

Csilla Duneczky
Professor Science
B.A., University of Colorado - Boulder
Ph.D., University of Pennsylvania

Terri Easley
Asst. Prof. Speech/Deb. Coach
B.A., University of Texas Dallas
M.A., Baylor University

Beth Edmonds
Asst. Prof. Mathematics
B.S., Pittsburg State University
M.A., University of Kansas

Brenda Edmonds
Assoc. Prof. Mathematics
B.A., B.S., Kansas State University
M.A., University of Kansas

Claire Ehney
Mgr. HCDC
B.M.E., Abilene Christian University

Eric Elisabeth
Asst. Prof. Science
Ph.D., Univ of Missouri - Columbia
Foreign, Univ of Paris

David Ellis
Counselor
B.S., M.S., Emporia State University

Adam Entwistle
Sr. Systems Analyst

Daniel Epley
Systems Specialist
B.S., Baker University

Janie Epstein
Professor Info. Sys.
A.A., Graceland College
B.A., Univ of Missouri - Kansas City

Saul Epstein
Sr. Ed. Tech. Analyst
B.A., University of Kansas

Terri Erickson-Harper
Assoc. Prof. Graphic Design
B.F.A., Michigan State University

Mary Evans
Asst Prof. Science
B.A., M.A., University of Kansas

Roberta Eveslage
Professor Psychology
B.F.A., Texas Christian University
M.A., Ph.D., University of Kansas

Wendy Farwell
Counselor
B.A., Univ of Nebraska - Lincoln
M.A., Central Missouri State Univ
M.S., Univ of Nebraska - Omaha

Elise Fischer
Professor Mathematics
B.S., University of Oklahoma
M.S., Univ of Mass/Amherst

Ellen Fisher
Mgr. Acctg. Services & Grants
B.S., Kansas State University
M.B.A., University of Kansas

Richard Fisher
TV Producer/Director
A.S., B.A., Park College

Maureen Fitzpatrick
Professor English
B.A., Iowa State University
M.A., Univ of Missouri - Columbia

Douglas Flick
Assoc. Prof. Hospitality Mgmt.
A.O.S., Culinary Institute of America

Heather Flick
Professor Dental Hygiene
A.A., Clark College  WA
B.S., M.S., Univ of Missouri - Kansas City

Michael Fluke
Sr. Support Analyst
A.S., Johnson County Comm College

Mary Foret
Assoc. Prof. English
B.A., M.A., M.Ed., University of Mississippi

Richard Fort
Professor/CPF Toyota
B.S., M.S., Pittsburg State University

Carolyn Foster
Counselor/Coord. Internships
B.S., Southwest Baptist University
M.S., University of LaVerne

Mark Foster
Professor Sociology
A.A., Nassau Community College
B.A., University of Georgia
M.A., Long Island Univ-C W Post
Ph.D., Mississippi State University

Emily Fowler
Development Coordinator
B.A., Univ of Missouri - Kansas City

Carl Frailey
Professor Science
B.A., Southern Illinois University
M.S., University of Florida
Ph.D., University of Kansas

Philip Franklin
Professor Science
B.S., Pittsburg State University
M.S., University of Kansas

James Freed
Dir. Facility Planning
B.A., Kansas State University

Timothy Frenzel
Prog. Dir. Prof. Education
B.S., Univ of Missouri - Kansas City
M.S., University of Kansas

Connie Freund
Professor Respiratory Care
A.A., Kansas City KS Comm College
B.S., University of Kansas

Dorothy Friedrich
VP Human Resources
B.A.,M.P.A., Univ of Missouri - Kansas City

Lisa Friedrichsen
B.S., Iowa State University
M.B.A., Drake University

Ronald Frigault
Counselor
B.S., Michigan State University
M.Ed., Univ of Missouri - Columbia
Ph.D., University of Texas/Austin

Jeff Frost
Professor Mathematics
B.S.,B.S., Kansas State University
M.A., University of Kansas

Janette Funaro
Assoc. Prof. Foreign Language
B.A., Grinnell College
M.A., University of Chicago

Elizabeth Furtwengler
Asst. Dean Soc. Sci/Social Svc
B.A., Univ St of NY Regents College
M.A.,Ph.D., SUNY at Albany
Marilyn Gaar  
Professor Poli Sci/History  
B.A.,M.A.,M.S., Indiana University-Bloomington

Joseph Gadberry  
Asst. Dean Science  
B.A., Concordia College  
M.S., North Dakota State University  
Ph.D., University of Nebraska

Marilyn Gairns  
Assoc. Web Editor  
B.S., Rockhurst University

Dawn Gale  
Asst. Professor Philosophy  
B.A., Univ of Wisconsin - Madison  
M.A., University of Kansas

Whitney Gameson  
Collection/Exhibition Coord.

Michael Garrett  
Asst. Dean Arts & Humanities  
B.A., Florida Southern College  
M.S.,Ph.D., Florida State University

Sean Garvey  
Systems Administrator  
A.A., Kansas City KS Comm College

Laura Gascogne  
Assoc. Prof. Fine Arts  
B.F.A., Virginia Commonwealth Univ  
M.F.A., Temple University

Keith Geekie  
Professor English  
B.S.,M.A., Murray State University  
Ph.D., Univ of Missouri - Columbia

Timothy Gelvin  
Dir. Center for Bus. & Tech.  
A.A., St Petersburg Junior College  
B.S., Florida State University  
M.B.A., University of Tampa

Dennis George  
Professor Science  
B.S., Rockhurst University  
M.A., Univ of Missouri - Kansas City

Karen Gerety  
Curator of Art Education

Steven Gerson  
Professor English  
B.A., University of Texas/Austin  
M.A., Southwest Texas State Univ  
Ph.D., Texas Tech University

Kathleen Ghahramani
Assoc. Prof. Business Admin.
A.A., Iowa Western Comm College - Council Bluffs
B.S., Univ of Nebraska - Omaha
M.B.A., Creighton University

**Steven Giambrone**
Assoc. Prof. Science
B.S., Univ of Missouri - Kansas City
M.S., Central Missouri State Univ

**Jay Glatz**
Mgr. Dining Services
B.B.A., University of Denver

**Phyllis Goldberg**
Counselor
B.A., CUNY Hunter College
M.A., Webster University - St. Louis

**Jerry Gordon**
Assoc. Prof. Info. Technology
A.A., Jackson State Comm College
B.A., Oklahoma Baptist University
M.Div., Midwestern Baptist Theo Sem

**Mary Graham**
College Info Writer/Editor
B.S., University of Kansas
M.L.A., Baker University

**Kevin Gratton**
Professor Science
B.A., Rockhurst University
Ph.D., University of Kansas

**Carolyn Green-Nigro**
Professor Nursing
A.A., Johnson County Comm College
B.S.N.,M.N.,Ph.D., University of Kansas

**Scott Gregory**
Chief Audio Engineer
B.A., Univ of Missouri - Kansas City

**Dana Grove**
Exec. VP Academic Affairs
B.S.,M.A.,Ph.D., Ball State University

**Kim Grubbs**
Professor EMS
B.S., Bethel College - North Newton

**Judith Guzzy**
Assoc. Prof./Librarian
A.M.,B.S., University of Illinois - Urbana Champaign
M.L.S., University of California - Berkeley

**Julie Haas**
Dir. College Info & Pub
B.A.,M.A., University of Kansas

**Sheryl Hadley**
Asst. Prof. Economics
B.S., M.A., Central Missouri State Univ

Brandon Hamlin
Data Base Administrator

Russell Hanna
Professor Info. Sys.
B.S., M.S., Univ of Missouri - Rolla

Steve Hansen
Professor Computer Science
A.A., Metropolitan Comm College
B.A., M.S., Univ of Missouri - Kansas City

John Hanson
Professor Science
B.S., Bethany College - Lindsborg
M.A., Webster University - St. Louis

Terry Haren
Mgr. Computing Projects
B.A., University of Kansas
M.B.A., Webster University - St. Louis

Gregory Harrell
Assoc. Prof. Jnlm Eng Lrn Str
B.S., Ball State University
M.S., Northwestern University

Nancy Harrington
Info. Sys./Game Dev.
B.S., Mississippi State University
M.S., University of Arkansas

Shaun Harris
 Assoc. Prof. English
B.A., Concordia College - Moorhead
M.A., Ph.D., Univ of Nebraska - Lincoln

Bruce Hartman
Dir. Gallery of Art
B.F.A., Central Missouri State Univ
M.F.A., Washington University

Bruce Harvey
Counselor
B.S., Northern Illinois University
M.Ed., University of Arkansas

Sandra Hastings
Professor English
B.A., Hollins University
M.L.A., Baker University

Rex Hays
Dir. Campus Services
B.A., MidAmerica Nazarene Univ
M.B.A., Baker University

John Head
Assoc. Prof. Hospitality Mgmt.
A.A.S., Johnson County Comm College
B.A., Univ of Missouri - Kansas City
M.S., Univ of Southern California
M.S., University of Kansas

Mary Hedberg
Assoc. Prof. Bus. Office Tech
B.S., Minot State University
M.S., Central Missouri State Univ

Carl Heinrich
Dir. HPER & Athletics
B.S., University of Kansas
M.S., Northwest Missouri State Univ

Teresa Helmick
Professor Speech
B.S.E.,M.A., Central Missouri State Univ
Ph.D., University of Kansas

Michael Hembree
Professor History
B.A., Eckerd College
M.A.,Ph.D., Florida State University

Suzanne Henkle
Systems Specialist
A.A.S., Hawkeye Comm College
B.S., Upper Iowa University
M.B.A., Univ of Missouri - Kansas City

Barry Herron
Assoc. Prof. Science
B.S., Central Missouri State Univ
Ph.D., Univ of Missouri - Columbia

Margaret Herron
Registrar
B.S., Central Missouri State Univ
M.A., Univ of Missouri - Columbia

William Hickerson
Professor/CPF HVAC
A.A.S.,B.S.T., University of South Dakota - Springfield

Roxanne Hillman
House Manager
B.A., Southern Illinois University - Carbondale

Barry Hincks
Professor Pers. Comp. Appl.
B.A., Occidental College
M.F.A., Rochester Inst of Technology

Bruce Hines
Mgr. Document Services
B.S., Northwest Missouri State Univ

Timothy Hoare
Assoc. Prof. Humanities
B.A., Missouri Valley College
M.Div., McCormick Theological Sem
Roger Hobson  
Video Systems Engineer  
A.S., Johnson County Comm College

Kay Hoech  
Professor Science  
B.S., M.A., Univ of Missouri - Kansas City

Monica Hogan Adams  
Assoc. Prof. English  
B.A., B.A., M.A., Univ of Missouri - Kansas City

Nancy Holcroft Benson  
Asst. Prof. Science  
B.S., Iowa State University  
Ph.D., University of Kansas

Daniel Holmes  
Mgr. Systems Integration  
A.A., Johnson County Comm College  
B.A., Ottawa University

Matthew Holmes  
Systems Manager

Tonya Honeycutt  
Asst. Prof. Psychology  
B.A., Univ of Missouri - Columbia  
M.S., Southwest Missouri State University  
Psy. D., Forest Institute of Prof Psyc

Donna Hoopes  
Professor Mathematics  
B.S., University of Kansas  
M.S., Wichita State University

James Hopper  
B.A., Univ of Missouri - Kansas City  
M.A., University of Kansas

Dale Hughes  
Professor Mathematics  
B.S., Univ of Missouri - Rolla  
M.A., Washington University

Tom Hughes  
Professor/CPF Comp Aided Draft  
A.A.S., Kalamazoo Valley Comm College

Robert Hunt  
Professor Science  
B.S.E., University of Kansas  
M.S., M.S., Rensselaer Polytech Institute

Diana Hurst  
Asst. Prof. Early Childhood Ed  
B.S., Univ of Missouri - Columbia  
M.A., University of Missouri - Kansas City
Samira Hussein  
B.S., Iowa State University  
M.B.A., M.S., Central Missouri State Univ

Teresa Ilten  
Asst. Prof. Nursing  
B.S.N., Central Missouri State Univ  
M.S.N., University of Kansas

Christopher Imm  
Assoc. Prof. Mathematics  
B.S., Northwest Missouri State Univ  
M.S., Univ of Missouri - Columbia

Diana Ingham  
Asst. Prof. Interior Design  
B.S., M.S., Univ of Missouri - Columbia

Janalee Isaacson  
Professor Nursing  
B.S., M.S.N., University of Kansas

Chesley Jameson  
Assoc. Prof. Nursing  
B.S.N., Washburn University  
M.S.N., Univ of Missouri - Kansas City

Jozsef Javorek  
Professor Fitness  
Dip. , Cluj Institute, Romania

Michael Jeffers  
Professor/Coach  
B.S.E., M.Ed., Georgia Southern University

Darren Jenkins  
Sr. Support Analyst  
B.S., Kansas State University

Jean Jensen  
Professor Mathematics  
B.A., Dana College  
M.S., Univ of Nebraska - Omaha

Laura Johannesmeyer  
Community Career Svcs. Coord.

Susan Johnson  
Prof./CPF Eng. Tech  
B.S., M.S., Ohio State University

Timothy Johnson  
Asst. Mgr./ Executive Chef  
A.O.S., New England Culinary Institute

Patricia Jonason  
Professor Reading/Acad Ach Ctr  
B.A., Yankton College  
M.A., Univ of Missouri - Kansas City

David Jones
Sr. Ed. Tech. Analyst  
A.A., Dixie State College  
B.A., Utah State University

**Kelly Jones**  
Professor Dental Hygiene  
A.A., Johnson County Comm College  
B.S., Univ of Missouri - Kansas City

**Robin Judkins**  
Sr. Network Analyst - Telecomm

**Ralph Juhnke**  
Sr. Research Analyst  
B.A.,Ph.D., University of Kansas  
M.A., Univ of Missouri - Kansas City

**Carolyn Kadel**  
Professor Political Science  
B.A., Elmira College  
M.A.T., Brown University

**Bobanne Kalkofen**  
Assoc. Prof. Interior Design  
B.S., Univ of Missouri - Columbia  
M.L.A., Baker University

**Marziah Karch**  
Sr. Ed. Tech. Analyst  
B.F.A., University of Kansas  
M.S., Emporia State University

**Norman Karl**  
Professor Business Admin.  
B.A., Wartburg College  
M.A., University Northern Colorado

**Andrea Kempf**  
Professor/Librarian  
B.A., Brandeis University  
M.A., Johns Hopkins University  
M.S., Simmons College

**Cherie Kennedy**  
Assoc. Prof. Bus. Adm/Off Tech  
B.S.,M.Ed., Univ of Central Oklahoma

**Jennifer Kennett**  
Asst. Prof. Mathematics  
M.S., Univ of Texas - Pan American

**Raymond Kenny**  
Hazardous Materials Coord.  
B.A.,M.P.A., University of Kansas

**Kyong-Mal Kim**  
Professor Economics  
B.S., Nihon University  
M.A., Calif State Univ - Fullerton  
Ph.D., Union Graduate School

**Kay King**
Assoc. Prof. Admin. Justice
B.S.,M.S., Central Missouri State Univ

Russell Kinion
Sr. Support Analyst

Shirly Kleiner
Professor/CPF Accounting
B.A., Avila College
M.B.A., University of Kansas

Cynthia Kleinsorge
Financial Aid Officer
B.A., University of Kansas

Toby Klinger
Professor Psychology
B.A., Douglass College
M.A.,M.Ed., Teachers College of Columbia University

Linda Knudson
Dean Cont Ed & Comm Svc
B.A., Wichita State University
M.P.A.,Ed.D., University of Kansas

William Koch
Assoc. Prof. Science
B.S., University of California - San Diego
M.S., Univ of Missouri - Kansas City

Judy Korb
Dir. Staff & Org. Dev.
A.A., Johnson County Comm College
B.A., MidAmerica Nazarene Univ
M.A., Webster University
Ph.D., University of Kansas

Jeffrey Kosko
Sr. Ed. Tech. Analyst
A.A., Johnson County Comm College
B.S., Avila College

Frederick Krebs
Professor History
B.A., University of Kansas
M.A., Univ of Missouri - Kansas City

Donna Krichiver
Professor Mathematics
B.A.,M.A., Northeastern Illinois State College

David Krug
Asst. Prof. Accounting
B.B.A., Kansas State University
M.B.A., University of Kansas

Dennis Kuder
Sr. Buyer
B.B.A., Baker University

Sue Kuder
Exec. Asst. to President
Dennis Kurogi
Asst. Dean EMS
B.A., Ottawa University

Mark LaBarge
Professor Science
B.S., M.S., Emporia State University

Anthony Lacy
Bus. Solutions Consultant
A.A., M.B.A., University of Kansas

Karen LaMartina
Assoc. Prof. Nursing
A.A., Johnson County Comm College
B.S.N., University of Kansas
M.S.N., Univ of Missouri - Kansas City

Bill Lamb
Dean Liberal Arts
B.A., University of Kansas
M.A., Pittsburg State University
Ph.D., Kansas State University

James Lane Jr
Acad. Theater Tech Dir
B.A., Washburn University
M.F.A., Univ of Missouri - Kansas City

Ralph Langley
Professor Drafting
A.A., Johnson County Comm College
B.S., Pittsburg State University

Karen Langtry
Systems Specialist
B.S.E., Pittsburg State University

Darwin Lawyer
Counselor
A.A., Estherville Junior College
B.A., Northwest Missouri State College
M.Ed., Univ of Missouri - Columbia

Timothy Lednicky
Assoc. Prof. R R Welding
A.A., Hutchinson Community College
B.S., Pittsburg State University

Teresa Lee
Mgr. Human Resources
B.S., Troy State University
M.S., Central Michigan University

William Lehman
Professor Science
B.S., Eastern Illinois University
M.S., Arizona State Univ - Main

James Leiker
Assoc. Prof. History
B.B.A., M.A., Fort Hays State University
Jeffery Lewis  
Assoc. Prof. Mathematics  
B.S., M.Ed., University of Wisconsin

Susan Lindahl  
VP College Rel. & Strat. Init.  
B.S.E., M.S.Ed., University of Kansas

Margaret LoGiudice  
Asst. Dean Dental Hygiene  
B.S., Marquette Univ  
M.S., Univ of Missouri - Kansas City

Nancy Longhibler  
Career Services Coordinator  
B.S., Central Missouri State Univ  
M.Ed., Univ of Missouri - Columbia

David Loring  
Professor Science  
B.S., M.S., Kansas State University

Jimmie Lossing  
Professor Info. Sys.  
B.A., Western New Mexico University  
M.A., M.S., University of Arizona

Delphine Lovitt  
Systems Support Mgr  
B.S., Fort Hays State University

Edward Lovitt  
Technical Training Coordinator  
B.A., B.S., Kearney State College  
M.S., Pittsburg State University  
Ph.D., Nova Southeastern University

Timothy Lucas  
Sr. Systems Analyst  
B.S., Friends University

Gregory Luthi  
Professor English  
B.A., M.A., Kansas State University  
Ph.D., Oklahoma State University - Stillwater

Darryl Luton  
Prof. Interpreter Trng.  
B.A., Gallaudet University

Kevin Lutz  
Systems Administrator  
A.A., Wichita State University

Gerald Magliano  
Professor Pers. Comp. Appl.  
B.A., University of Detroit  
M.B.A., Rockhurst University

Barbara Mahring
Gary Malek  
Asst. Prof. Science  
B.A., M.S., Univ of Wisconsin - Milwaukee

Lori Mallory  
Assoc. Prof. Physical Ed.  
B.S., Bethel College - North Newton  
M.Ed., Wichita State University

Jerold Marcellus  
Assoc. Prof. Hosp. Mgmt./CHE  
A.A.S., Johnson County Comm College  
B.A., Bethany College - Lindsborg  
M.M., Kansas State University  
M.S., Pittsburg State University

Darren Marshall  
Sr. Support Analyst

Teresa Marshall  
Publications Manager  
B.S., Kansas State University

Chad Martin  
Systems Specialist  
A.A.S., Ozarks Technical Comm College  
B.S., Southwest Missouri State Univ

Michael Martin  
Professor Mathematics  
B.S., M.A., University of Kansas

Daniel Martinez  
Assoc. Prof. Science  
A.A.S., Penn Valley Comm College  
B.S., Univ of Missouri - Rolla  
M.S., Arizona State Univ - Main

Karen Martley  
Bus. Solutions Consultant  
B.S., Avila College  
M.S., Pittsburg State University

Pamela Mayfield  
Systems Specialist  
B.A., Park College

Charlotte McAnerney  
Professor Cosmetology

Theresa McChesney  
Asst. Prof. Mathematics  
B.S., Westminster College  
M.A., University of Pittsburgh

Joan McCrillis
Professor/CPF Fash Merch. Dsgn  
B.S., M.S., Kansas State University

**Kristin McDaniel**  
Development Coordinator  
B.A., MidAmerica Nazarene Univ

**Sara McElhenny**  
Prog. Dir. HCDC  
B.A., University of Kansas  
M.S., Emporia State University

**William McFarlane**  
Asst. Prof. Anthropology  
B.A., University of Central Florida  
M.A., Ph.D., SUNY at Buffalo

**William McKown**  
Professor Science  
B.A., Sterling College  
M.A., Sam Houston State University  
Ph.D., University of Minnesota

**Wiley McMillan III**  
Master Electrician

**Mary Patricia McQueeney**  
Assoc. Prof. English  
B.S., M.A., M.A., Ph.D., University of Kansas

**James McWard**  
Professor English  
B.A., M.A., Univ of Missouri - Columbia  
Ph.D., University of Kansas

**Philip Mein**  
Mgr. Systems  
B.S., University of Kansas

**Angel Mercier**  
Prog. Dir. Art Education  
B.A., Stephens College  
M.S., Illinois State University

**Jeffrey Merritt**  
Assoc. Prof./CPF Acad Ach Ctr  
A.A., Johnson County Comm College  
B.A., M.A., University of Kansas

**Holly Milkowart**  
Asst. Prof. ESL/EAP  
B.A., M.A., University of Kansas

**Barbara Millard**  
Asst. Prof. Entrepreneurship  
B.S., Framingham State College  
M.B.A., Baker University  
M.S., University of Tennessee

**Deana Miller**  
Assoc. Prof. Speech  
B.A., M.A., Southern Nazarene University
Jonathan Miller  
Asst. Prof. Architecture  
B.S., M.A., Univ of Nebraska - Lincoln  

Vincent Miller  
Systems Programmer/Analyst  
B.A., University of Kansas  
M.A., Ph.D., University of Pennsylvania  

Sam Mirsepasi  
Sr. Support Analyst  

Cathy Misenhelter  
Staff & Org Dev. Coord.  
B.A., Southwest Baptist College  
M.S., Baker University  

Richard Moehring  
Counselor  
B.A., MidAmerica Nazarene Univ  
M.S., University of Kansas  

Ellen Mohr  
Professor Writing Center  
B.S., M.A., Northwest Missouri State Univ  

Todd Moran  
Sr. Support Analyst  
B.A., University of San Diego  

Michael Moreland  
Assoc. Pro. Instr. Music  
B.A., University of Kansas  
M.A., Univ of Missouri - Kansas City  

Jeff Morgan  
Sr. Systems Analyst  
A.A.S., Brown Mackey College - Olathe  

Michelle Moriarty  
Professor Psychology  
B.A., Rockhurst University  
M.S., Avila University  
Ph.D., University of Kansas  

James Morris  
Professor R R Welding  
B.S., Oklahoma State University - Stillwater  

Glen Moser  
Professor/Coach  
B.S., M.S., Bowling Green State University - Bowling Green  

Jason Mueller  
Assoc. Prof. R R Welding  
B.S.E., M.S., Pittsburg State University  

Ellyn Mulcahy  
Asst. Prof. Science  
Ph.D., Creighton University  
Foreign, University College Cork, Ireland
Robert Murphy  
Counselor  
B.A., St. Mary's University  
M.S., Ph.D., University of Wisconsin - Madison

Carolynn Nellis  
Professor EMS  
B.S., Emporia State University  
M.L.A., Baker University

Tracy Newman  
Sr. Ed. Tech. Analyst  
B.S., Northwestern University

John Nicholson  
Professor Pers. Comp. Appl.  
B.A., University of Colorado - Boulder

Linda O'Brien  
Professor Mathematics  
B.A., New York University  
M.A., SUNY at Binghamton

Cathleen O'Neil  
Assoc. Prof. Mathematics  
B.A., Texas A&M University  
M.S., Ph.D., University of Kansas

Mary O'Sullivan  
Mgr. Help Desk  
B.A., MidAmerica Nazarene Univ  
M.B.A., University of Saint Mary

Ronald Oetting  
Professor Mathematics  
B.S., Central Missouri State Univ  
M.A., Louisiana State Univ A & M

Judith Ogden  
Professor Info. Sys.  
B.A., Fairmont State College  
M.A., West Virginia University

William Osborn  
Dean Comm Out. & Media Res.  
B.S.E., Emporia State University  
M.S., Pittsburg State University  
Ed.S., Pittsburg State University  
Ed.D., University of Kansas

Lynne Overesch-Maister  
Professor Foreign Language  
B.A., Michigan State University  
Ph.D., University of Kentucky

Ronald Palcic  
Assoc. Prof. Mathematics  
A.A., Palomar College  
B.S., Calif Lutheran University  
M.Ed., Utah State University

Anita Pankalla
Cosmetology Coord.
B.S., Southern Nazarene University

Candace Parker
Asst. Prof. Nursing

Robert Parker
Assoc. Prof. EMS
B.S., Northeastern University

James Patterson
Assoc. Prof. Science
B.S., Central Missouri State Univ
M.S., Ball State University
Ph.D., University of Kansas

Minnie Payton-Adams
Tech Prep Coordinator
B.A., MidAmerica Nazarene College
M.A., Univ of Missouri - Kansas City

David Pearce
Sr. Support Analyst
A.A., Johnson County Comm College

Keith Pembleton
Warehouse & Postal Svcs. Supv.

Michael Pener
Professor Paralegal
A.B., Univ of Missouri - Columbia
L.L.B.,L.L.M., Univ of Missouri - Kansas City

Donald Perkins
Dir. Budget & Auxiliary Svcs.
B.A., St. Xavier College

Anthony Perry
Prog. Dir. Carlsen Ctr Ops

Robert Perry
Professor Sociology
B.A., Northwestern University - Evanston
M.A., University of California - Berkeley

Pete Peterson
Professor Psychology
B.A.,M.S., Calif State Univ - Stanislaus
Ph.D., University of Kansas

Susan Pettyjohn
Professor Mathematics
B.A., William Jewell College
M.A., Univ of Missouri - Kansas City

Sheilah Philip
Professor Theater
B.A.,M.S., Fort Hays State University
M.F.A., Univ of Missouri - Kansas City

Bryant Pierce
Systems Programmer/Analyst
Robert Pinker
Professor Science
B.S., Capital University
M.S., Ohio State University - Columbus
M.B.A., University of Kansas

Julie Pitts
Prog. Dir. Intl. Student Svcs.
B.S., Northwest Missouri State Univ
M.S., Univ of Nebraska - Kearney

Robert Pitts
Sr. Support Analyst

Polly Pope
Professor Dental Hygiene
A.S., North Dakota St Coll Science
B.S., University of Minnesota - Twin Cities
M.S., University of Kansas

Robert Prater
Dir. Financial Services
B.S., M.B.A., Central Missouri State College

Mary Rack
Professor Mathematics
B.A., College of St. Elizabeth
M.A., University of Rochester

Laura Radke
Systems Specialist
B.S., Iowa State University
M.B.A., Univ of Missour/Kansas City

Virginia Radom
Assoc. Prof. Health Occ.
B.S.N., Fort Hays State University
M.S., Central Michigan University

Mark Raduziner
Professor Jnlsm & Media Comm
B.S., Univ of Nebraska - Omaha
M.A., Univ of Missouri - Kansas City

Gus Ramirez
Dir. Public Safety
A.A., Johnson County Comm College

Ruth Randall
Assoc. Prof./Prog Fac. Honors
A.A., Johnson County Comm College
B.A., MidAmerica Nazarene Univ
M.A., Baker University

Melody Rayl
Asst. Prof Admin. of Justice
B.A., Park University
M.A., Washburn University

Sun Rea
Sr. Ed. Tech. Analyst
B.S., University of Kansas

**Bradley Redburn**
Professor Psychology
B.A., Wichita State University
M.A., Ph.D., Univ of Missouri - Kansas City

**Larry Reynolds**
Professor Speech
A.A., San Jacinto College
B.S., University of Texas/Austin
M.A., Ph.D., University of Kansas

**Thomas Reynolds**
Asst. Prof. English
B.A., Washburn University
M.F.A., Wichita State University

**John Rezac**
Professor Info. Sys./Comp. Sci
B.S., M.Ed., South Dakota State University
M.S., Rutgers University

**Marilyn Rhinehart**
VP of Instruction
B.A., M.A., Ph.D., Univ of Houston

**Joy Rhodes**
Asst. Prof. Fash.Merch./Des.
B.S., Colorado State University

**Harold Richards**
Assoc. Prof/Bus. Admin. & SIFE
B.A., M.A., Wichita State University

**Susan Rider**
Mgr. Business Office/Bursar
B.S., Central Missouri State Univ

**Michael Robertson**
Professor Humanities
B.A., M.A., Ph.D., Florida State University

**Lindy Robinson**
Asst. Dean Design & Hosp.
A.A., Johnson County Comm College
B.A., M.A., Ottawa University

**Timothy Robinson**
Sr. Support Analyst

**William Robinson**
Asst. Prof. Mathematics
B.S., North Dakota State University
M.S., Univ of Minnesota - Twin Cities

**Charles Rogers**
Dir. Carlsen Center
B.A., University of Kansas
M.A., University of Illinois
Theodore Rollins  
Asst. Professor English  
B.A., Ambassador University  
M.A., Colorado State University  

Gloria Rosso  
Counselor  
M.A., Arizona State Univ- Main  
Foreign, Javeriana University  

Richard Rowe  
Professor CPF/Metal Fab  
B.S., University of Mary  
M.S., Pittsburg State University  

Deborah Rulo  
Prog. Dir. Comp. Trng. & Dev.  
B.S., Kansas State University  

John Russell  
Professor/Librarian  
B.S., Trenton State College  
M.B.A., Kansas State University  
M.S., Syracuse Univ Main Campus  

Stephanie Sabato  
Assoc. Prof. Graphic Design  
A.A., Longview Community College  
B.F.A., Kansas City Art Institute  
M.F.A., Virginia Commonwealth Univ  

Catherine Sawyer  
Assoc. Prof. Read/Acad Ach Ctr  
B.S., Univ of Nebraska - Lincoln  
M.A., University of Kentucky - Lexington  

Matthew Schmeer  
Asst. Professor English  
B.A.,M.F.A., Univ of Missouri - St. Louis  

Nancy Schmidt  
Professor Health Occ.  
A.A., Johnson County Comm College  
B.S.N., Kansas University  
B.A., University of Kansas  

Mary Schneider  
Assoc. Prof. Electronics  
A.B.,B.S., Wichita State University  
M.S., University of Kansas  

Karen Schory  
Prof/CPF Interactive Media/Ani  
B.F.A., Kutztown Univ of Pennsylvania  
M.F.A., Rochester Inst of Technology  

Ann Schwartz  
Counselor  
M.Ed., Antioch University - Yellow Springs  

Denise Scofield  


Thomas Scofield II  
A.A., Johnson County Comm College  
B.S., Rockhurst University  
M.B.A., M.Ed., MidAmerica Nazarene Univ

Elma Jean Scott-Palmer  
Prog. Dir. Special Programs  
A.A., Tulsa Junior College  
B.S., Langston University  
M.S., Kansas State University

David Seibel  
Professor Science  
B.S., Southwestern College - Winfield  
M.Phil., Ph.D., University of Kansas

Marilyn Senter  
Assoc. Prof. English  
B.S.E., Univ of Missouri - Columbia  
M.A., Univ of Missouri - Kansas City

David Setser  
Professor Electronics  
B.A., Central Missouri State Univ  
B.S., Univ of Missouri - Rolla  
M.B.A., Univ of Missouri - Kansas City

Jeffrey Seybert  
Dir. Rsrch Eval. & Instr Dev.  
B.A., California State College - Long Beach  
M.S., Ph.D., University of Oklahoma

Stuart Shafer  
Professor Sociology  
B.A., Western Michigan University  
M.A., University of Kansas

Penny Shaffer  
Prog. Dir. Health/Human Svcs.  
A.D.N., Johnson County Comm College  
B.A., Mid America Nazarene  
M.A., Webster University

Kent Shelley  
Professor/Coach  
A.A., Pratt Community College  
B.S., University of Kansas  
M.S., Emporia State University

Margaret Shelley  
Dir. Enrollment Management  
B.S., Kansas State University  
M.S., Emporia State University

Marcia Shideler  
Coord. Comm. Based Learning  
B.A., Kansas State University

Jane Shipley
Success Center Coord.
B.S., Graceland College
M.S., Ohio State Univ. - Main Campus

Larry Shirk
Asst. Prof. Read/Acad Ach Ctr
B.S., Iowa State University
M.A., University Northern Colorado
Ph.D., University of Kansas

Sherry Shively
Professor Accounting
B.S., Metropolitan State College
M.B.A., Avila College

Albert Shopper
Professor Welding
B.S., M.S., Central Missouri State Univ

Marilyn Shopper
Professor Science
A.A., Cottey College
B.S., Univ of Missouri - Columbia
M.S., Central Missouri State Univ
Ed.D., University of Kansas

Heather Shuey
Asst. Mgr. Bookstore
B.A., Univ of Missouri - Kansas City

Robert Sindt
B.F.A., University of Utah

Lori Slavin
Asst. Prof. Science
B.S., Pittsburg State University
Ph.D., Kent State University Main

Ruth Slesser
Professor Psychology
B.A., M.A., University of Guelph - Canada
Ph.D., University of Kansas

Allison Smith
Assist. Prof. Art History
B.A., University of Kansas
M.A., American University
Ph.D., Univ of Minnesota - Twin Cities

Barbara Smith
A.A., Hutchinson Community College
B.S., Emporia State University

Carol Smith
B.S., Emporia State University

David Smith
Hospitality Management
B.A., Ottawa University
Glenn Smith  
Professor HVAC  
B.A., Central Methodist College  
M.S., Pittsburg State University

Mary Smith  
Professor Nursing  
B.S.N., M.S.N., University of Kansas

Robert Sobiera  
Assoc. Prof. Hospitality Mgmt.  
A.S., Johnson & Wales University  
B.S., M.B.A., University of New Haven

Samuel Sommerville  
Assoc. Prof. Foreign Language  
B.S., Escuela Normal Victor Mercante  
M.A., University of Kansas

Joseph Sopcich  
Dir. Institutional Adv.  
B.A., M.B.A., University of Notre Dame

Angela Spaniol  
Asst. DBA  
B.S., Park University

Lekha Sreedhar  
Asst. Prof. Horticulture  
Foreign, Foreign, Univ of Guelph Ontario, Canada

Kimberly Stabbe  
Professor Dental Hygiene  
B.S., Univ of South Dakota  
M.S., Univ of Missouri - Kansas City

Ronda Staton  
Counselor  
B.S., M.S., Ed.S., Pittsburg State University

Bradley Staupp  
Sr. Support Analyst  
B.A., MidAmerica Nazarene Univ

Kerri Stephenson  
Professor Foreign Language  
B.A., Univ of Nebraska - Kearney  
M.A., Middlebury College

Loralee Stevens  
Comm. Outreach Credit Coord.  
B.S., Baker University  
M.S., Emporia State University  
Ed.D., University of Kansas

Richard Stine  
Professor Speech  
B.S., M.S., Emporia State University  
Ph.D., University of Kansas

Jill Stinson  
Assoc. Prof./Coach
Ronald Stinson
Assoc. Prof. Instr. Music
B.M.E., Wichita State University
M.M., Yale University

William Stockton
Professor History
B.A., Drake University
M.A., Ph.D., Brandeis University

Roger Stone
Professor Auto Tech/Metal Fab
B.S., M.S., Central Missouri State College

Stacey Storme
Assoc. Prof./CPF Intrprtr Trng
B.A., University of Denver

Norma Stratemeier
Professor Paralegal
B.A., J.D., Univ of Missouri - Kansas City

Felix Sturmer
Assoc. Prof. Hospitality Mgmt.
Foreign, Apprenticeship - Berlitz Translation

K Sumner
Information Analyst
B.S., M.S., Univ of Missouri - Kansas City

Timothy Sumstine
Asst. Mgr. Catering

Alan Swarts
Dir. Computing Support Svcs.
B.S., Emporia State University
M.S., University of Kansas

Ronald Symansky
Assoc. Prof. Interpreter Trng
B.A., Gallaudet University
M.A., New York University

Frank Syracuse
Professor Economics
A.B., John Carroll University
M.B.A., Avila College

Thomas Tarnowski
Professor Photography
B.A., University of South Florida
M.F.A., Rhode Island Sch of Design

Jennifer Tate
Asst. Prof./Librarian
B.A., University of Virginia
M.L.S., Univ of Maryland College Park

Terri Teal
Assoc. Prof. Vocal Music
B.S., Louisiana College
M.M., University of North Texas
Ph.D., University of Kansas

Anita Tebbe
Professor/CPF Paralegal
B.A., Mundelein College
M.A., Univ of Missouri - Kansas City
J.D. , Washburn University

Sandra Tebbenkamp
Professor Mathematics
A.B., William Jewell College
M.A., Hunter College

John Thomas
Professor Fine Arts
B.F.A., Southeast Missouri State Univ
M.A.,M.F.A., University of Iowa

Karen Thomas
Accountant
B.S., Central Missouri State Univ

John Thomson III
Asst. Dean Writing Lit./Media
B.A., Univ of Memphis
M.A., University of Minnesota - Twin Cities
Ph.D., University of Iowa

Qing Tian
Asst. DBA
M.A., University of Oregon

Diana Tilton
Asst. Prof. Nursing
B.S., Univ of Missouri - Kansas City

Danial Turner
Professor Hospitality Mgmt.
A.A., Johnson County Comm College

Rick Tyrell
Sr. Network Analyst
B.S., Bethel College - North Newton

Carolyn Urbom
Assoc. Prof. Info. Technology
A.A.S., Johnson County Comm College
B.B.A.,M.A., Wichita State University

Russell Vandekauter
Programmer Analyst
B.A., University of Illinois

Felix VanLeeuwen
Professor Mathematics
B.S., Fort Hays State University
M.S., Emporia State University

Jennifer Vasquez
Asst. Prof. Esthetics

Pamela Vassar
Prog. Dir. Stdnt Life/Lead Dev
B.S.E., Northeast Missouri State University
M.S., Western Illinois University

Judith Vaughn
Professor/Librarian
B.S., University of Kansas
M.L.S., Univ of Missouri - Columbia

Philip Veer
Asst. Professor Mathematics
B.S., Friends University
M.S., Emporia State University

Jean Ann Vickers
Asst. Prof. Science
B.A.,M.A., Baylor University

Janelle Vogler
Internal Auditor
B.S., Kansas State University

Philip Wallack
Assoc. Prof. Info Sys/Comp Sci
B.S.,M.S., City College of New York

Ola Walsh
Asst. Dean Nursing
A.D.N., Olney Central College
B.S.N.,M.S.N., University of Evansville

Shun Wang
Asst. Prof. Mathematics
B.A.,M.S., Washington State University
Foreign , Soochow University

Sandra Warner
Dir. Admin. Comp. Svcs.
B.A., University of Kansas
M.B.A., Univ of Missouri - Kansas City

Michael Waugh
Acad. Dir. Media Prod. & Svcs.
B.S.,M.S., University of Kansas

Karon Way
Assoc. Prof. Mathematics
B.A., Rockhurst College
M.A., Webster University - St. Louis

Frederick Webb II
Professor Business Admin.
B.S., Baker University
M.B.A., Avila College

Philip Wegman
Prog. Dir. Skills Enhancement
A.B., Benedictine College - Atchison
M.S., Kansas State University
Michael Weible
Prof./CPF Elec Tech
A.B., Baker University

Richard Weis Jr
Assoc. Prof./Coach
B.S., Oklahoma State University - Stillwater
M.Ed., Wichita State University

Steven Werkmeister
Asst. Prof. English
B.A.,M.A., University of Nebraska - Lincoln

Nancy West
Professor Nursing
A.A., Fort Scott Community College
B.S.N., Pittsburg State University
M.N., University of Kansas

Rosalie Wetherill
Professor Health Occ.
A.D.N., Penn Valley Comm College
B.A., Univ of Missouri - Kansas City
B.S.N., Webster University - St. Louis
M.S., Kansas State University

James Wheeler
Asst. Dean Comp Sci/ Info Tch
M.S.,Ed. B. , SUNY at Buffalo

Carmaletta Williams
Professor English
B.A.,M.A., Univ of Missouri - Kansas City
Ph.D., University of Kansas

Deborah Williams
Asst. Prof. Science
B.S.,B.S.,M.S., Kansas State University
M.A.,J.D. , University of Kansas

James Williams
Dean of Business & Tech.
A.A., Independence Comm College
B.S., Emporia State University
Ed.D., University of Kansas

Janna Willnauer
Access Services Supervisor
A.A., Johnson County Comm College
B.S., Morningside College
M.A., University of Kansas

Dina Wilson
Professor Nursing
B.S.N.,M.N., University of Pittsburgh

LeAnna Wilson
Dir. Community Services
A.A., Johnson County Comm College
B.A., MidAmerica Nazarene Univ
Nancy Wilson
Professor Graphic Design
B.F.A., Kansas City Art Institute
M.F.A., University of Kansas

Steven Wilson
Professor Mathematics
B.A., M.A.T., University of Chicago

Randy Winchester
Prog. Coord. Comp. Training
B.S.E.E., Kansas State University

Sally Winship
A.S., Pensacola Junior College
B.S., Armstrong State College
M.S., Columbia Univ in the City - New York
Ed.D., University of Kansas

Stephen Wnek
Assoc. Prof. EMS
B.A., Clark University
M.A., Univ of Missouir - Kansas City

Luanne Wolfgram
Assoc. Prof. Science
B.S., University of Wisconsin - LaCrosse
Ph.D., Johns Hopkins University

Kathleen Wolford
Project Accountant
B.B.A., Univ of Nebraska - Lincoln

Jerry Wolfskill
Dir. Police Academy
B.S., M.S., Central Missouri State Univ
Ed.D., University of Kansas

Christopher Worthington
Mgr. Bookstore
A.A., Johnson County Comm College

Brian Wright
Assoc. Prof. Political Science
B.A., M.A., Duquesne University
Ph.D., Kent State University

Jeffrey Wright
Professor Accounting
B.S., M.B.A., University of Kansas

Ray Wright
Professor EMS
B.A., Bethel College

Robert Xidis
Professor English
B.A., Ph.D., University of Kansas
M.A., Indiana University-Bloomington

**Kathy Yeager**  
Bus. Solutions Consultant  
B.S., Ball State University  
M.A., Webster University

**Phillip Yeager**  
Assoc. Prof. Info. Technology  
B.S., Ball State University  
M.B.A., Webster University

**Patrick Yeung**  
Sr. Support Analyst  
A.A., Penn Valley Comm College  
B.B.A., Univ of Missouri - Kansas City  
M.S., University of Kansas

**Rae Ann York**  
Benefits Coordinator

**Myra Young**  
Professor Speech  
B.S., Northwest Missouri State Univ  
M.A., University Northern Colorado

**Charles Zarrelli**  
Professor Civil Engineering  
B.A., University of Houston

**Mark Zolton**  
Systems Programmer/Analyst  
B.S., Kansas State University
Index

- A - ..................................................................................... 174
- A - ..................................................................................... 448
- B - ..................................................................................... 174
- B - ..................................................................................... 448
- C - ..................................................................................... 174
- C - ..................................................................................... 448
- D - ..................................................................................... 174
- D - ..................................................................................... 448
- E - ..................................................................................... 175
- E - ..................................................................................... 449
- F - ..................................................................................... 175
- F - ..................................................................................... 449
- G - ..................................................................................... 175
- H - ..................................................................................... 175
- H - ..................................................................................... 449
- I - ..................................................................................... 175
- I - ..................................................................................... 449
- J - ..................................................................................... 175
- L - ..................................................................................... 176
- L - ..................................................................................... 449
- M - ..................................................................................... 176
- M - ..................................................................................... 449
- N - ..................................................................................... 176
- O - ..................................................................................... 176
- P - ..................................................................................... 176
- P - ..................................................................................... 449
- R - ..................................................................................... 176
- R - ..................................................................................... 449
- S - ..................................................................................... 177
- S - ..................................................................................... 450
A+, Certificate in.................................................. 439
ABE/GED (XGE).................................................. 450
ABLE ..................................................................... 30
Academic Achievement Center (AAC).................... 177
Academic Achievement Center (XGH).................... 451
Access Specialist Certificate .................................. 439
Accounting (ACCT)............................................. 181
Accounting, A.A.S. ............................................. 31
Accreditation........................................................ 1
Administration of Justice (ADMJ)......................... 183
Administration of Justice, A.A................................ 33
Administrative Assistant with Legal Emphasis, A.A.S. 46
Administrative Assistant with Medical Emphasis, A.A.S. 48
Administrative Assistant, A.A.S................................ 45
Administrative Skills (XBF)................................... 452
Administrative Support Specialist Certificate............ 49
Adobe Graphics and Design.................................. 440
Advanced Esthetics Certificate............................... 64
American Sign Language Studies Certificate............ 141
Animation (ANI)................................................. 187
Animation, A.A.S.............................................. 35
Anthropology (ANTH)......................................... 189
Architecture (ARCH).......................................... 190
Area Vocational School Certificate......................... 101
Area Vocational School Certificate......................... 102
Area Vocational School Certificate......................... 102
Area Vocational School Certificate......................... 102
Area Vocational School Certificate......................... 105
Area Vocational School Certificate......................... 106
<table>
<thead>
<tr>
<th>Degree Type</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Associate of Applied Science</td>
<td>162</td>
</tr>
<tr>
<td>Associate of Applied Science</td>
<td>166</td>
</tr>
<tr>
<td>Associate of Applied Science</td>
<td>167</td>
</tr>
<tr>
<td>Associate of Applied Science</td>
<td>169</td>
</tr>
<tr>
<td>Associate of Applied Science</td>
<td>170</td>
</tr>
<tr>
<td>Associate of Applied Science</td>
<td>171</td>
</tr>
<tr>
<td>Associate of Applied Science</td>
<td>172</td>
</tr>
<tr>
<td>Associate of Applied Science</td>
<td>31</td>
</tr>
<tr>
<td>Associate of Applied Science</td>
<td>35</td>
</tr>
<tr>
<td>Associate of Applied Science</td>
<td>37</td>
</tr>
<tr>
<td>Associate of Applied Science</td>
<td>40</td>
</tr>
<tr>
<td>Associate of Applied Science</td>
<td>43</td>
</tr>
<tr>
<td>Associate of Applied Science</td>
<td>45</td>
</tr>
<tr>
<td>Associate of Applied Science</td>
<td>47</td>
</tr>
<tr>
<td>Associate of Applied Science</td>
<td>48</td>
</tr>
<tr>
<td>Associate of Applied Science</td>
<td>55</td>
</tr>
<tr>
<td>Associate of Applied Science</td>
<td>57</td>
</tr>
<tr>
<td>Associate of Applied Science</td>
<td>64</td>
</tr>
<tr>
<td>Associate of Applied Science</td>
<td>66</td>
</tr>
<tr>
<td>Associate of Applied Science</td>
<td>68</td>
</tr>
<tr>
<td>Associate of Applied Science</td>
<td>73</td>
</tr>
<tr>
<td>Associate of Applied Science</td>
<td>75</td>
</tr>
<tr>
<td>Associate of Applied Science</td>
<td>78</td>
</tr>
<tr>
<td>Associate of Applied Science</td>
<td>82</td>
</tr>
<tr>
<td>Associate of Applied Science</td>
<td>84</td>
</tr>
<tr>
<td>Associate of Applied Science</td>
<td>87</td>
</tr>
<tr>
<td>Associate of Applied Science</td>
<td>89</td>
</tr>
<tr>
<td>Associate of Applied Science</td>
<td>99</td>
</tr>
<tr>
<td>Associate of Arts</td>
<td>161</td>
</tr>
<tr>
<td>Associate of Arts</td>
<td>4</td>
</tr>
<tr>
<td>Associate of Arts Degree</td>
<td>145</td>
</tr>
<tr>
<td>Associate of Arts Degree</td>
<td>33</td>
</tr>
<tr>
<td>Associate of Arts Degree</td>
<td>92</td>
</tr>
<tr>
<td>Associate of General Studies</td>
<td>15</td>
</tr>
<tr>
<td>Program Name</td>
<td>Page</td>
</tr>
<tr>
<td>------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Associate of Science</td>
<td>8</td>
</tr>
<tr>
<td>Associate of Science Degree</td>
<td>41</td>
</tr>
<tr>
<td>Associate of Science Degree</td>
<td>70</td>
</tr>
<tr>
<td>Associate's Degrees</td>
<td>3</td>
</tr>
<tr>
<td>Associate's Degrees Offered at JCCC</td>
<td>3</td>
</tr>
<tr>
<td>Astronomy (ASTR)</td>
<td>195</td>
</tr>
<tr>
<td>Audio Recording Engineering, Certificate in</td>
<td>440</td>
</tr>
<tr>
<td>Automotive Technology (AUTO)</td>
<td>196</td>
</tr>
<tr>
<td>Automotive Technology Certificate</td>
<td>38</td>
</tr>
<tr>
<td>Automotive Technology Entrepreneurship Certificate</td>
<td>39</td>
</tr>
<tr>
<td>Automotive Technology, A.A.S</td>
<td>37</td>
</tr>
<tr>
<td>Aviation (XPV)</td>
<td>465</td>
</tr>
<tr>
<td>Biology (BIOL)</td>
<td>200</td>
</tr>
<tr>
<td>Biotechnology (BIOT)</td>
<td>204</td>
</tr>
<tr>
<td>Biotechnology Certificate</td>
<td>42</td>
</tr>
<tr>
<td>Biotechnology, A.A.S</td>
<td>39</td>
</tr>
<tr>
<td>Biotechnology, A.S</td>
<td>40</td>
</tr>
<tr>
<td>Bookkeeping Entrepreneurship Certificate</td>
<td>32</td>
</tr>
<tr>
<td>Business (BUS)</td>
<td>205</td>
</tr>
<tr>
<td>Business Administration, A.A.S</td>
<td>43</td>
</tr>
<tr>
<td>Business Administrative Assistant Entrep Certificate</td>
<td>50</td>
</tr>
<tr>
<td>Business Logistics Management (KSCL)</td>
<td>208</td>
</tr>
<tr>
<td>Business Office Technology (BOT)</td>
<td>208</td>
</tr>
<tr>
<td>Business Plan Certificate</td>
<td>83</td>
</tr>
<tr>
<td>Business Skills (XBD)</td>
<td>466</td>
</tr>
<tr>
<td>Business-Logistics Mgt, A.A.S</td>
<td>44</td>
</tr>
<tr>
<td>Career Planning (XVR)</td>
<td>473</td>
</tr>
<tr>
<td>Career Programs</td>
<td>20</td>
</tr>
<tr>
<td>Catalog of Courses Spring 2007</td>
<td>1</td>
</tr>
<tr>
<td>CBT Special Events (XBA)</td>
<td>473</td>
</tr>
<tr>
<td>Certificate of Completion</td>
<td>20</td>
</tr>
<tr>
<td>Certified Medication Aide Certificate</td>
<td>101</td>
</tr>
<tr>
<td>Certified Medication Aide Update Certificate</td>
<td>101</td>
</tr>
<tr>
<td>Certified Nurse Aide Certificate</td>
<td>102</td>
</tr>
</tbody>
</table>
Certified Nurse Aide Refresher Certificate ........................................... 102
Chef Apprenticeship, A.A.S. .................................................................. 118
Chemistry (CHEM) ............................................................................. 213
Civil Engineering Technology (CET) .................................................... 215
Civil Engineering Technology, A.A.S. .................................................. 54
Combination Welder I Certificate .......................................................... 156
Combination Welder II Certificate ......................................................... 156
Combination Welder/Machinist I Certificate ......................................... 156
Commercial Wiring Certificate .............................................................. 72
Communication Skills - 6 hours ............................................................. 17
Complementary and Alternative Medicine, Certificate in ..................... 441
Computer Desktop Publishing (CDTP) .................................................. 217
Computer Forensics (CFOR) ................................................................. 220
Computer Information Systems (CIS) .................................................... 220
Computer Information Systems, A.A.S. ................................................. 56
Computer Personal Computer App (CPCA) .......................................... 226
Computer Science (CS) ...................................................................... 231
Computer Skills - 3 hours .................................................................... 17
Computer Training (XCM) ................................................................. 478
Computer Web (CWEB) ...................................................................... 232
Computer-aided Drafting and Design Technology, A.A.S. ..................... 67
Computer-aided Drafting Certificate ..................................................... 69
Construction Management Certificate ................................................ 55
Continuing Education Certificate Programs ....................................... 438
Continuing Education Course Descriptions ....................................... 448
Cosmetology (AVCO) ......................................................................... 237
Cosmetology Certificate ...................................................................... 65
Cosmetology Instructor Training Certificate ..................................... 65
Cosmetology Training (XNCO) ............................................................ 520
Cosmetology, A.A.S. .......................................................................... 64
Credit Career and Certificate Program List ........................................ 21
Credit Career and Certificate Programs .......................................... 20
Credit Course Descriptions ................................................................. 174
Culture and Ethics - 6 hours ............................................................... 16
<table>
<thead>
<tr>
<th>Course</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fashion Design Entrepreneurship Certificate</td>
<td>87</td>
</tr>
<tr>
<td>Fashion Design, A.A.S.</td>
<td>88</td>
</tr>
<tr>
<td>Fashion Merchandising Entrep Certificate</td>
<td>89</td>
</tr>
<tr>
<td>Fashion Merchandising, A.A.S.</td>
<td>86</td>
</tr>
<tr>
<td>Fashion Merchandising/Design (FASH)</td>
<td>274</td>
</tr>
<tr>
<td>Fire Science (XNF)</td>
<td>532</td>
</tr>
<tr>
<td>Fire Services Administration (FIRE)</td>
<td>279</td>
</tr>
<tr>
<td>Fire Services Administration, A.A.</td>
<td>91</td>
</tr>
<tr>
<td>Food and Beverage Management Certificate</td>
<td>121</td>
</tr>
<tr>
<td>Food and Beverage Management, A.A.S.</td>
<td>119</td>
</tr>
<tr>
<td>Food and Wine (XPE)</td>
<td>534</td>
</tr>
<tr>
<td>Foreign Language (FL)</td>
<td>280</td>
</tr>
<tr>
<td>Foreign Language (XPL)</td>
<td>539</td>
</tr>
<tr>
<td>Game Art &amp; Music Advanced Certificate</td>
<td>93</td>
</tr>
<tr>
<td>Game Business Advanced Certificate</td>
<td>93</td>
</tr>
<tr>
<td>Game Development (GAME)</td>
<td>287</td>
</tr>
<tr>
<td>Game Development, A.A.S.</td>
<td>94</td>
</tr>
<tr>
<td>Game Entrepreneurship Advanced Certificate</td>
<td>95</td>
</tr>
<tr>
<td>Game Narrative Advanced Certificate</td>
<td>96</td>
</tr>
<tr>
<td>Game Programming Advanced Certificate</td>
<td>96</td>
</tr>
<tr>
<td>General Basic HVAC Certificate</td>
<td>111</td>
</tr>
<tr>
<td>General Basic HVAC Installation and Duct Fabrication C.</td>
<td>111</td>
</tr>
<tr>
<td>General Basic HVAC Maintenance Certificate</td>
<td>112</td>
</tr>
<tr>
<td>General Basic HVAC Sales, Design and Estimating Cert.</td>
<td>112</td>
</tr>
<tr>
<td>General Basic Welding Certificate</td>
<td>157</td>
</tr>
<tr>
<td>General Education Requirements</td>
<td>12</td>
</tr>
<tr>
<td>General Education Requirements</td>
<td>5</td>
</tr>
<tr>
<td>General Education Requirements</td>
<td>8</td>
</tr>
<tr>
<td>Geographic Info Systems Cert</td>
<td>97</td>
</tr>
<tr>
<td>Geographic Information Systems (KEOG)</td>
<td>289</td>
</tr>
<tr>
<td>Geoscience (GEOS)</td>
<td>290</td>
</tr>
<tr>
<td>Gerontology, Certificate in</td>
<td>442</td>
</tr>
<tr>
<td>Global Issues/Diversity - 3 hours</td>
<td>18</td>
</tr>
<tr>
<td>Graduation Requirements</td>
<td>2</td>
</tr>
<tr>
<td>Course</td>
<td>Credits</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>Graphic Design (GDES)</td>
<td>290</td>
</tr>
<tr>
<td>Graphic Design, A.A.S.</td>
<td>98</td>
</tr>
<tr>
<td>Health and Lifestyles (XPG)</td>
<td>664</td>
</tr>
<tr>
<td>Health and/or Physical Education - 1 hour</td>
<td>11</td>
</tr>
<tr>
<td>Health and/or Physical Education - 1 hour</td>
<td>15</td>
</tr>
<tr>
<td>Health and/or Physical Education - 1 hour</td>
<td>8</td>
</tr>
<tr>
<td>Health Care (HC)</td>
<td>293</td>
</tr>
<tr>
<td>Health Care Interpreting (HCI)</td>
<td>294</td>
</tr>
<tr>
<td>Health Care Interpreting Certificate</td>
<td>142</td>
</tr>
<tr>
<td>Health Care Professions (XNC)</td>
<td>545</td>
</tr>
<tr>
<td>Health Information Tech, A.A.S</td>
<td>100</td>
</tr>
<tr>
<td>Health Information Technology (KMRT)</td>
<td>295</td>
</tr>
<tr>
<td>Health Occupations (AVHO)</td>
<td>298</td>
</tr>
<tr>
<td>Health Prof Independent Study (XNH)</td>
<td>648</td>
</tr>
<tr>
<td>Health, Physical Education, Recreation - 2 hours</td>
<td>19</td>
</tr>
<tr>
<td>Heating, Vent., Air Conditioning (HVAC)</td>
<td>300</td>
</tr>
<tr>
<td>History (HIST)</td>
<td>304</td>
</tr>
<tr>
<td>Home Economics (HMEC)</td>
<td>307</td>
</tr>
<tr>
<td>Home Health Aide Certificate</td>
<td>105</td>
</tr>
<tr>
<td>Home Ownership (XPK)</td>
<td>666</td>
</tr>
<tr>
<td>Honors Program (HON)</td>
<td>307</td>
</tr>
<tr>
<td>Horticulture (HORT)</td>
<td>308</td>
</tr>
<tr>
<td>Horticulture Certificate</td>
<td>116</td>
</tr>
<tr>
<td>Hospitality Entrepreneurship Certificate</td>
<td>121</td>
</tr>
<tr>
<td>Hospitality Management (HMGT)</td>
<td>311</td>
</tr>
<tr>
<td>Hospitality Mgt Pastry Baking (HMPB)</td>
<td>317</td>
</tr>
<tr>
<td>Hotel &amp; Lodging Management, A.A.S.</td>
<td>122</td>
</tr>
<tr>
<td>House and Garden (XPI)</td>
<td>667</td>
</tr>
<tr>
<td>Humanities (HUM)</td>
<td>319</td>
</tr>
<tr>
<td>Humanities - 3 hours</td>
<td>12</td>
</tr>
<tr>
<td>Humanities - 6 hours</td>
<td>5</td>
</tr>
<tr>
<td>Humanities - 6 hours</td>
<td>9</td>
</tr>
<tr>
<td>HVAC Commercial Service Technician Certificate</td>
<td>114</td>
</tr>
<tr>
<td>HVAC Commercial Service Technician, A.A.S.</td>
<td>112</td>
</tr>
</tbody>
</table>
HVAC Installation Technician Certificate................................. 114
HVAC Residential Service Technician Certificate .................. 116
HVAC Residential Service Technician, A.A.S. ....................... 115
Index......................................................................................... 848
Industrial Controls Certificate .................................................. 79
Industrial Electrical Wiring Certificate ..................................... 77
Industrial Maintenance Certificate .......................................... 76
Industrial Maintenance, A.A.S. .............................................. 75
Industrial Technology (INDT) .................................................. 320
Information Technology (IT) .................................................... 321
Information Technology, A.A.S. ................................................ 125
Insurance (XNI) .................................................................... 669
Intensive English (XGI) ............................................................. 675
Intensive English Program ......................................................... 443
Interactive Media (CIM) ............................................................. 325
Interactive Media, A.A.S. .......................................................... 127
Interior Design & Merchandising Entrep Certificate ............. 135
Interior Design (ITMD) .............................................................. 328
Interior Design Advanced Certificate ....................................... 133
Interior Design Retail Sales/Manufacturing Rep Certificate .. 134
Interior Design, A.A.S. ............................................................. 132
Interior Entrepreneurship, A.A.S. ............................................ 136
Interior Merchandising, A.A.S. ................................................ 137
Interior Products Sales Representative Certificate ............. 139
Interpreter Training (INTR) ...................................................... 334
Interpreter Training, A.A.S. ..................................................... 139
IV Therapy for LPN's Certificate ............................................... 105
JCCC Statement of General Education .................................. 2
Journalism/Media Communication (JOUR) ........................... 338
Kansas AVS/TC Articulated ...................................................... 36
Kansas AVS/TC Articulated, A.A.S. ......................................... 36
Land Surveying (KSRV) .......................................................... 340
Land Surveying Certificate ..................................................... 144
Land Surveying, A.A.S. .......................................................... 143
<table>
<thead>
<tr>
<th>Course</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Landscape Technician Certificate</td>
<td>117</td>
</tr>
<tr>
<td>Law Enforcement (XNP)</td>
<td>679</td>
</tr>
<tr>
<td>Leadership (LEAD)</td>
<td>342</td>
</tr>
<tr>
<td>Leadership (XBZ)</td>
<td>688</td>
</tr>
<tr>
<td>Learning Communities (LCOM)</td>
<td>342</td>
</tr>
<tr>
<td>Learning Strategies (LS)</td>
<td>346</td>
</tr>
<tr>
<td>Legal Education and Mediation (XNL)</td>
<td>694</td>
</tr>
<tr>
<td>Legal Nurse Consultant Certificate</td>
<td>146</td>
</tr>
<tr>
<td>Legal Nurse Consultant Entrepreneurship Certificate</td>
<td>147</td>
</tr>
<tr>
<td>Legal Studies (LAW)</td>
<td>348</td>
</tr>
<tr>
<td>Library (LIBR)</td>
<td>353</td>
</tr>
<tr>
<td>Lifetime Learning (XLN)</td>
<td>697</td>
</tr>
<tr>
<td>Literature and Writing (XKL)</td>
<td>699</td>
</tr>
<tr>
<td>Macromedia Web Design, Certificate in</td>
<td>444</td>
</tr>
<tr>
<td>Management Development (XDM)</td>
<td>705</td>
</tr>
<tr>
<td>Marketing and Management, A.A.S.</td>
<td>149</td>
</tr>
<tr>
<td>Marketing Management (MKT)</td>
<td>353</td>
</tr>
<tr>
<td>Marketing Specialist Entrepreneurship Certificate</td>
<td>150</td>
</tr>
<tr>
<td>Massage Therapy (XNM)</td>
<td>717</td>
</tr>
<tr>
<td>Mathematics (MATH)</td>
<td>355</td>
</tr>
<tr>
<td>Mathematics - 3 hours</td>
<td>19</td>
</tr>
<tr>
<td>Medical Administrative Assistant Entrepreneurship Cert</td>
<td>50</td>
</tr>
<tr>
<td>Medical Coding Certification</td>
<td>444</td>
</tr>
<tr>
<td>Medical Office Assistant Certificate</td>
<td>51</td>
</tr>
<tr>
<td>Medical Transcription Certificate</td>
<td>52</td>
</tr>
<tr>
<td>Metal Fabrication and Welding (MFAB)</td>
<td>362</td>
</tr>
<tr>
<td>Metal Fabrication Technology Certificate</td>
<td>155</td>
</tr>
<tr>
<td>Metal Fabrication Technology, A.A.S.</td>
<td>154</td>
</tr>
<tr>
<td>Microcomputer Programmer Analyst Certificate</td>
<td>60</td>
</tr>
<tr>
<td>Microcomputer Technical Support Certificate</td>
<td>79</td>
</tr>
<tr>
<td>Microsoft Certified Desktop Support Technician</td>
<td>445</td>
</tr>
<tr>
<td>Microsoft Certified Systems Administrator</td>
<td>445</td>
</tr>
<tr>
<td>Microsoft Certified Technical Specialist: SQL 2005</td>
<td>445</td>
</tr>
<tr>
<td>Mobile Intensive Care Technician Certificate</td>
<td>82</td>
</tr>
<tr>
<td>Course</td>
<td>Credits</td>
</tr>
<tr>
<td>--------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>Modes of Inquiry - 6 hours</td>
<td>18</td>
</tr>
<tr>
<td>Money Management (XPM)</td>
<td>724</td>
</tr>
<tr>
<td>Multimedia Design Certificate</td>
<td>129</td>
</tr>
<tr>
<td>Multimedia Design Entrepreneurship Certificate</td>
<td>129</td>
</tr>
<tr>
<td>Music (MUS)</td>
<td>364</td>
</tr>
<tr>
<td>Music, Gemology (XKA)</td>
<td>727</td>
</tr>
<tr>
<td>Nail Technology Certificate</td>
<td>66</td>
</tr>
<tr>
<td>Network Administration: UNIX Certificate</td>
<td>126</td>
</tr>
<tr>
<td>Network Administration: Windows Certificate</td>
<td>126</td>
</tr>
<tr>
<td>Network Connectivity Certificate</td>
<td>127</td>
</tr>
<tr>
<td>Network+, Certificate in</td>
<td>445</td>
</tr>
<tr>
<td>Notice of Nondiscrimination</td>
<td>1</td>
</tr>
<tr>
<td>Nursing (NURS)</td>
<td>380</td>
</tr>
<tr>
<td>Nursing - Registered Nurse, A.A.S.</td>
<td>157</td>
</tr>
<tr>
<td>Occupational Therapy Assistant (KOT)</td>
<td>382</td>
</tr>
<tr>
<td>Occupational Therapy Asst, A.A.S.</td>
<td>106</td>
</tr>
<tr>
<td>Office Careers Certificate</td>
<td>52</td>
</tr>
<tr>
<td>Oracle DBA Associate, Certificate in</td>
<td>446</td>
</tr>
<tr>
<td>Oracle DBA Professional, Certificate in</td>
<td>446</td>
</tr>
<tr>
<td>Owning/Managing a Virtual Home Office Certificate</td>
<td>53</td>
</tr>
<tr>
<td>Paralegal Certificate</td>
<td>148</td>
</tr>
<tr>
<td>Paralegal, A.A.</td>
<td>144</td>
</tr>
<tr>
<td>Pastry/Baking Certificate</td>
<td>123</td>
</tr>
<tr>
<td>Pastry/Baking Entrepreneurship Certificate</td>
<td>124</td>
</tr>
<tr>
<td>Personal Computer Application Specialist</td>
<td>61</td>
</tr>
<tr>
<td>Personal Development (XKD)</td>
<td>729</td>
</tr>
<tr>
<td>Philosophy (PHIL)</td>
<td>386</td>
</tr>
<tr>
<td>Photography (PHOT)</td>
<td>387</td>
</tr>
<tr>
<td>Photography (XKP)</td>
<td>733</td>
</tr>
<tr>
<td>Physical Ed, Health &amp; Rec (HPER)</td>
<td>389</td>
</tr>
<tr>
<td>Physical Science (PSCI)</td>
<td>397</td>
</tr>
<tr>
<td>Physical Therapist Assistant (KPT)</td>
<td>398</td>
</tr>
<tr>
<td>Physical Therapist Asst, A.A.S.</td>
<td>107</td>
</tr>
<tr>
<td>Physics (PHYS)</td>
<td>401</td>
</tr>
</tbody>
</table>
Railroad Operations - General Option, A.A.S.................... 167
Railroad Operations - Mechanical Option, A.A.S. .............. 169
Railroad Operations - Welding Option, A.A.S. ................. 170
Railroad Operations-Mechanical (RRTM) ......................... 420
Railroad Structural Welding Certificate ......................... 165
Railroad Track Welding Certificate ................................ 165
Railroad Training (XBR) ............................................. 740
Railroad Work Equipment (RRWE) ............................... 421
Reading (RDG) ........................................................ 423
Real Estate and Appraisal (XNR) .................................... 740
Recording Engineer (XRE) ........................................... 750
Rehabilitative Aide Certificate ...................................... 110
Religion (REL) .......................................................... 423
Required Courses ..................................................... 439
Required Courses ..................................................... 445
Required Courses ..................................................... 445
Required Courses ..................................................... 445
Required Courses ..................................................... 446
Required Courses ..................................................... 446
Required Courses ..................................................... 446
Required Courses ..................................................... 446
Required Courses ..................................................... 446
Required Courses ..................................................... 446
Required Courses ..................................................... 446
Required Courses ..................................................... 446
Required Courses ..................................................... 446
Required Courses ..................................................... 447
Required Courses ..................................................... 447
Required Courses ..................................................... 447
Required Courses ..................................................... 448
Residential Wiring Certificate ....................................... 77
Veterinary Technology (KSAH) ........................................ 435
Veterinary Technology, A.A.S. ........................................ 172
Virtual Home Office Certificate ...................................... 53
Virtual Medical Office Certificate .................................... 54
Visual Merchandising Certificate ..................................... 90
Visual Merchandising Entrepreneurship Certificate ........... 90
Vocational Certificate .................................................... 104
Vocational Certificate .................................................... 110
Vocational Certificate .................................................... 111
Vocational Certificate .................................................... 111
Vocational Certificate .................................................... 112
Vocational Certificate .................................................... 112
Vocational Certificate .................................................... 114
Vocational Certificate .................................................... 117
Vocational Certificate .................................................... 117
Vocational Certificate .................................................... 121
Vocational Certificate .................................................... 123
Vocational Certificate .................................................... 124
Vocational Certificate .................................................... 126
Vocational Certificate .................................................... 127
Vocational Certificate .................................................... 127
Vocational Certificate .................................................... 129
Vocational Certificate .................................................... 130
Vocational Certificate .................................................... 131
Vocational Certificate .................................................... 131
Vocational Certificate .................................................... 134
Vocational Certificate .................................................... 134
Vocational Certificate .................................................... 135
Vocational Certificate .................................................... 139
Vocational Certificate .................................................... 142
Vocational Certificate .................................................... 144
Vocational Certificate .................................................... 146
Vocational Certificate .................................................... 147
Vocational Certificate .................................................... 151
Vocational Certificate .......................................................... 61
Vocational Certificate .......................................................... 62
Vocational Certificate .......................................................... 62
Vocational Certificate .......................................................... 63
Vocational Certificate .......................................................... 69
Vocational Certificate .......................................................... 73
Vocational Certificate .......................................................... 74
Vocational Certificate .......................................................... 76
Vocational Certificate .......................................................... 77
Vocational Certificate .......................................................... 78
Vocational Certificate .......................................................... 79
Vocational Certificate .......................................................... 80
Vocational Certificate .......................................................... 80
Vocational Certificate .......................................................... 83
Vocational Certificate .......................................................... 83
Vocational Certificate .......................................................... 84
Vocational Certificate .......................................................... 85
Vocational Certificate .......................................................... 88
Vocational Certificate .......................................................... 90
Vocational Certificate .......................................................... 90
Vocational Certificate .......................................................... 91
Vocational Certificate .......................................................... 93
Vocational Certificate .......................................................... 94
Vocational Certificate .......................................................... 95
Vocational Certificate .......................................................... 96
Vocational Certificate .......................................................... 97
Vocational Certificate .......................................................... 97
Web Application Certificate .................................................. 62
Web Design Certificate ......................................................... 130
Web Design Entrepreneurship Certificate .............................. 131
Web Developer Advanced Certificate .................................... 63
Writing Center (XGW) ......................................................... 783
XGI 1110 Oral Communication 1110 ..................................... 443
Youth and Talents (XLY) ....................................................... 784
Table of Contents

Catalog of Courses Spring 2007 ................................................................. 1
  Accreditation ..................................................................................... 1
  Notice of Nondiscrimination .............................................................. 1
JCCC Statement of General Education ............................................... 2
Graduation Requirements ................................................................. 2
Associate's Degrees ........................................................................ 3
  Associate's Degrees Offered at JCCC ............................................. 3
Associate of Arts ............................................................................. 4
  General Education Requirements .................................................... 5
  Humanities - 6 hours ..................................................................... 5
  Social Science/Economics - 6 hours ................................................. 6
  Science and/or Mathematics - 9 hours ............................................. 7
  Health and/or Physical Education - 1 hour ..................................... 8
Associate of Science ........................................................................ 8
  General Education Requirements .................................................... 8
  Humanities - 6 hours ..................................................................... 9
  Social Science/Economics - 6 hours ................................................. 10
  Science and Mathematics -12 hours ................................................ 10
  Health and/or Physical Education - 1 hour ..................................... 11
Associate of Applied Science ......................................................... 11
  General Education Requirements .................................................... 12
  Humanities - 3 hours ................................................................... 12
  Social Science/Economics - 3 hours ................................................. 13
  Science and/or Mathematics - 3 hours ............................................. 14
  Health and/or Physical Education - 1 hour ..................................... 15
Associate of General Studies ............................................................ 15
  The Arts - 3 hours ...................................................................... 16
  Culture and Ethics - 6 hours ............................................................ 16
  Computer Skills - 3 hours ............................................................... 17
  Communication Skills - 6 hours ....................................................... 17
<table>
<thead>
<tr>
<th>Module</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Issues/Diversity</td>
<td>3</td>
</tr>
<tr>
<td>Modes of Inquiry</td>
<td>6</td>
</tr>
<tr>
<td>Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>Health, Physical Education, Recreation</td>
<td>2</td>
</tr>
<tr>
<td>Transfer Guides</td>
<td></td>
</tr>
<tr>
<td>Credit Career and Certificate Programs</td>
<td></td>
</tr>
<tr>
<td>Career Programs</td>
<td></td>
</tr>
<tr>
<td>Certificate of Completion</td>
<td></td>
</tr>
<tr>
<td>Postsecondary/Vocational Certificates</td>
<td></td>
</tr>
<tr>
<td>Credit Career and Certificate Program List</td>
<td></td>
</tr>
<tr>
<td>ABLE</td>
<td></td>
</tr>
<tr>
<td>Accounting, A.A.S.</td>
<td></td>
</tr>
<tr>
<td>Associate of Applied Science Degree</td>
<td></td>
</tr>
<tr>
<td>Bookkeeping Entrepreneurship Certificate</td>
<td></td>
</tr>
<tr>
<td>Vocational Certificate</td>
<td></td>
</tr>
<tr>
<td>Tax Preparation Entrepreneurship Certificate</td>
<td></td>
</tr>
<tr>
<td>Vocational Certificate</td>
<td></td>
</tr>
<tr>
<td>Administration of Justice, A.A.</td>
<td></td>
</tr>
<tr>
<td>Associate of Arts Degree</td>
<td></td>
</tr>
<tr>
<td>Animation, A.A.S</td>
<td></td>
</tr>
<tr>
<td>Associate of Applied Science Degree</td>
<td></td>
</tr>
<tr>
<td>Kansas AVS/TC Articulated, A.A.S.</td>
<td></td>
</tr>
<tr>
<td>Kansas AVS/TC Articulated</td>
<td></td>
</tr>
<tr>
<td>Automotive Technology, A.A.S.</td>
<td></td>
</tr>
<tr>
<td>Associate of Applied Science Degree</td>
<td></td>
</tr>
<tr>
<td>Automotive Technology Certificate</td>
<td></td>
</tr>
<tr>
<td>Vocational Certificate</td>
<td></td>
</tr>
<tr>
<td>Automotive Technology Entrepreneurship Certificate</td>
<td></td>
</tr>
<tr>
<td>Vocational Certificate</td>
<td></td>
</tr>
<tr>
<td>Biotechnology, A.A.S.</td>
<td></td>
</tr>
<tr>
<td>Associate of Applied Science Degree</td>
<td></td>
</tr>
<tr>
<td>Biotechnology, A.S.</td>
<td></td>
</tr>
<tr>
<td>Associate of Science Degree</td>
<td></td>
</tr>
<tr>
<td>Biotechnology Certificate</td>
<td></td>
</tr>
</tbody>
</table>
Vocational Certificate .......................................................... 42
Business Administration, A.A.S ........................................... 43
  Associate of Applied Science Degree ................................. 43
Business-Logistics Mgt, A.A.S ............................................. 44
  Associate of Applied Science .......................................... 44
Administrative Assistant, A.A.S .......................................... 45
  Associate of Applied Science Degree ................................. 45
Administrative Assistant with Legal Emphasis, A.A.S .......................... 46
  Associate of Applied Science Degree ................................. 47
Administrative Assistant with Medical Emphasis, A.A.S ..................... 48
  Associate of Applied Science Degree ................................. 48
Administrative Support Specialist Certificate .......................... 49
  Vocational Certificate .................................................... 49
Business Administrative Assistant Entrep Certificate ..................... 50
  Vocational Certificate .................................................... 50
Medical Administrative Assistant Entrepreneurship Cert .................. 50
  Vocational Certificate .................................................... 51
Medical Office Assistant Certificate ..................................... 51
  Vocational Certificate .................................................... 51
Medical Transcription Certificate ......................................... 52
  Vocational Certificate .................................................... 52
Office Careers Certificate ................................................... 52
  Vocational Certificate .................................................... 53
Owning/Managing a Virtual Home Office Certificate ...................... 53
  Vocational Certificate .................................................... 53
Virtual Home Office Certificate ............................................. 53
  Vocational Certificate .................................................... 54
Virtual Medical Office Certificate ......................................... 54
  Vocational Certificate .................................................... 54
Civil Engineering Technology, A.A.S ..................................... 54
  Associate of Applied Science Degree ................................. 55
Construction Management Certificate ..................................... 55
  Vocational Certificate .................................................... 56
Engineered Plumbing Systems Certificate ................................. 56
Vocational Certificate .......................................................... 56
Computer Information Systems, A.A.S. ....................................... 56
  Associate of Applied Science Degree ...................................... 57
Database Certificate .............................................................. 59
  Vocational Certificate .......................................................... 59
Desktop Publishing Certificate .................................................. 60
  Vocational Certificate .......................................................... 60
Microcomputer Programmer Analyst Certificate ......................... 60
  Vocational Certificate .......................................................... 61
Personal Computer Application Specialist .................................. 61
  Vocational Certificate .......................................................... 62
Web Application Certificate ..................................................... 62
  Vocational Certificate .......................................................... 62
Web Developer Advanced Certificate ....................................... 63
  Vocational Certificate .......................................................... 63
Advanced Esthetics Certificate .................................................. 64
  Area Vocational School Certificate ........................................ 64
Cosmetology, A.A.S. ............................................................... 64
  Associate of Applied Science Degree ...................................... 64
Cosmetology Certificate .......................................................... 65
  Area Vocational School Certificate ........................................ 65
Cosmetology Instructor Training Certificate ............................... 65
  Area Vocational School Certificate ........................................ 65
Esthetics Certificate ............................................................... 65
  Area Vocational School Certificate ........................................ 66
Nail Technology Certificate ...................................................... 66
  Area Vocational School Certificate ........................................ 66
Dental Hygiene, A.A.S. ............................................................. 66
  Associate of Applied Science Degree ...................................... 66
Computer-aided Drafting and Design Technology, A.A.S. .......... 67
  Associate of Applied Science Degree ...................................... 68
Computer-aided Drafting Certificate ........................................ 69
  Vocational Certificate .......................................................... 69
Early Childhood Education, A.S. .............................................. 70
Associate of Science Degree .................................................. 70

Early Childhood Education Certificate ...................................... 71

Postsecondary Certificate ....................................................... 72

Commercial Wiring Certificate ................................................ 72

Vocational Certificate ........................................................... 73

Electrical Technology, A.A.S. .................................................... 73

Associate of Applied Science Degree ........................................ 73

Electrical Technology Certificate .............................................. 74

Vocational Certificate ........................................................... 74

Industrial Maintenance, A.A.S. .................................................. 75

Associate of Applied Science Degree ........................................ 75

Industrial Maintenance Certificate ............................................ 76

Vocational Certificate ........................................................... 76

Industrial Electrical Wiring Certificate ....................................... 77

Vocational Certificate ........................................................... 77

Residential Wiring Certificate .................................................... 77

Vocational Certificate ........................................................... 78

Electronics Technology, A.A.S. .................................................. 78

Associate of Applied Science Degree ........................................ 78

Industrial Controls Certificate .................................................. 79

Vocational Certificate ........................................................... 79

Microcomputer Technical Support Certificate ............................. 79

Vocational Certificate ........................................................... 80

Smart House Technology Integrator Certificate .......................... 80

Vocational Certificate ........................................................... 80

Emergency Medical Science, A.A.S. .......................................... 80

Associate of Applied Science Degree ........................................ 82

Mobile Intensive Care Technician Certificate .............................. 82

Vocational Certificate ........................................................... 83

Emergency Medical Technician Certificate ................................ 83

Vocational Certificate ........................................................... 83

Business Plan Certificate ........................................................ 83

Vocational Certificate ........................................................... 84

Entrepreneurship, A.A.S. ......................................................... 84
Biology (BIOL) ........................................................................................................ 200
Biotechnology (BIOT) ................................................................................................ 204
Business (BUS) ........................................................................................................ 205
Business Logistics Management (KSCL) ............................................................... 208
Business Office Technology (BOT) ........................................................................ 208
Chemistry (CHEM) .................................................................................................. 213
Civil Engineering Technology (CET) ...................................................................... 215
Computer Desktop Publishing (CDTP) .................................................................. 217
Computer Forensics (CFOR) .................................................................................. 220
Computer Information Systems (CIS) ..................................................................... 220
Computer Personal Computer App (CPCA) .......................................................... 226
Computer Science (CS) .......................................................................................... 231
Computer Web (CWEB) .......................................................................................... 232
Cosmetology (AVCO) ............................................................................................... 237
Dental Hygiene (DHYG) .......................................................................................... 238
Drafting/CAD/AutoCAD (DRAF) .......................................................................... 241
Economics (ECON) ................................................................................................ 246
Education and Early Childhood (EDUC) ............................................................... 247
Electrical Technology (ELTE) ................................................................................ 251
Electronics (ELEC) .................................................................................................. 253
Emergency Medical Science/MICT (EMS) ............................................................ 257
Engineering (ENGR) ................................................................................................ 260
English (ENGL) ....................................................................................................... 262
English for Academic Purposes (EAP) ................................................................. 268
Entrepreneurship (ENTR) ....................................................................................... 271
Fashion Merchandising/Design (FASH) ............................................................... 274
Fire Services Administration (FIRE) .................................................................... 279
Foreign Language (FL) ........................................................................................... 280
Game Development (GAME) .................................................................................. 287
Geographic Information Systems (KEOG) ............................................................. 289
Geoscience (GEOS) ................................................................................................. 290
Graphic Design (GDES) ........................................................................................ 290
Health Care (HC) ...................................................................................................... 293
Health Care Interpreting (HCI) .............................................................................. 294
<table>
<thead>
<tr>
<th>Course</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Information Technology (KMRT)</td>
<td>295</td>
</tr>
<tr>
<td>Health Occupations (AVHO)</td>
<td>298</td>
</tr>
<tr>
<td>Heating, Vent., Air Conditioning (HVAC)</td>
<td>300</td>
</tr>
<tr>
<td>History (HIST)</td>
<td>304</td>
</tr>
<tr>
<td>Home Economics (HMEC)</td>
<td>307</td>
</tr>
<tr>
<td>Honors Program (HON)</td>
<td>307</td>
</tr>
<tr>
<td>Horticulture (HORT)</td>
<td>308</td>
</tr>
<tr>
<td>Hospitality Management (HMGT)</td>
<td>311</td>
</tr>
<tr>
<td>Hospitality Mgt Pastry Baking (HMPB)</td>
<td>317</td>
</tr>
<tr>
<td>Humanities (HUM)</td>
<td>319</td>
</tr>
<tr>
<td>Industrial Technology (INDT)</td>
<td>320</td>
</tr>
<tr>
<td>Information Technology (IT)</td>
<td>321</td>
</tr>
<tr>
<td>Interactive Media (CIM)</td>
<td>325</td>
</tr>
<tr>
<td>Interior Design (ITMD)</td>
<td>328</td>
</tr>
<tr>
<td>Interpreter Training (INTR)</td>
<td>334</td>
</tr>
<tr>
<td>Journalism/Media Communication (JOUR)</td>
<td>338</td>
</tr>
<tr>
<td>Land Surveying (KSRV)</td>
<td>340</td>
</tr>
<tr>
<td>Leadership (LEAD)</td>
<td>342</td>
</tr>
<tr>
<td>Learning Communities (LCOM)</td>
<td>342</td>
</tr>
<tr>
<td>Learning Strategies (LS)</td>
<td>346</td>
</tr>
<tr>
<td>Legal Studies (LAW)</td>
<td>348</td>
</tr>
<tr>
<td>Library (LIBR)</td>
<td>353</td>
</tr>
<tr>
<td>Marketing Management (MKT)</td>
<td>353</td>
</tr>
<tr>
<td>Mathematics (MATH)</td>
<td>355</td>
</tr>
<tr>
<td>Metal Fabrication and Welding (MFAB)</td>
<td>362</td>
</tr>
<tr>
<td>Music (MUS)</td>
<td>364</td>
</tr>
<tr>
<td>Nursing (NURS)</td>
<td>380</td>
</tr>
<tr>
<td>Occupational Therapy Assistant (KOT)</td>
<td>382</td>
</tr>
<tr>
<td>Philosophy (PHIL)</td>
<td>386</td>
</tr>
<tr>
<td>Photography (PHOT)</td>
<td>387</td>
</tr>
<tr>
<td>Physical Ed, Health &amp; Rec (HPER)</td>
<td>389</td>
</tr>
<tr>
<td>Physical Science (PSCI)</td>
<td>397</td>
</tr>
<tr>
<td>Physical Therapist Assistant (KPT)</td>
<td>398</td>
</tr>
<tr>
<td>Physics (PHYS)</td>
<td>401</td>
</tr>
</tbody>
</table>
Political Science (POLS).................................................................................. 402
Power Plant Technology (PPT) ........................................................................ 403
Practical Nursing (AVPN) ............................................................................... 405
Psychology (PSYC) .......................................................................................... 406
Radiologic Technology (KRAD) ....................................................................... 408
Railroad Conductor (RRTC) ............................................................................ 411
Railroad Dispatcher (RRTD) ........................................................................... 412
Railroad Electronics (RREL) ............................................................................ 413
Railroad Industrial Technology (RRIT) ............................................................ 415
Railroad Maintenance of Way (RRMW) .......................................................... 419
Railroad Operations (RRT) ............................................................................. 419
Railroad Operations-Mechanical (RRTM) ....................................................... 420
Railroad Work Equipment (RRWE) ................................................................. 421
Reading (RDG) .................................................................................................. 423
Religion (REL) ................................................................................................... 423
Respiratory Care (RC) ...................................................................................... 424
Sociology (SOC) ................................................................................................ 426
Speech/Debate (SPD) ....................................................................................... 428
Surgical Technology (KST) .............................................................................. 430
Theater (THEA) ................................................................................................ 432
Veterinary Technology (KSAH) ....................................................................... 435
Continuing Education Certificate Programs .................................................... 438
A+, Certificate in ................................................................................................ 439
  Required Courses .............................................................................................. 439
Access Specialist Certificate ............................................................................. 439
  Required Courses: ............................................................................................ 439
Adobe Graphics and Design .............................................................................. 440
  Required Courses: ............................................................................................ 440
Audio Recording Engineering, Certificate in .................................................... 440
  Semester 1 ........................................................................................................ 440
Complementary and Alternative Medicine, Certificate in ............................... 441
  Required Courses: ............................................................................................ 442
End of Life Care, Certificate ............................................................................. 442
  Required Courses: ............................................................................................ 442
Excel Specialist Certificate .......................................................... 442
  Required Courses: .................................................................... 442
Gerontology, Certificate in .......................................................... 442
  Required Courses: .................................................................... 443
Intensive English Program ............................................................. 443
  XGI 1110 Oral Communication 1110 ........................................ 443
Macromedia Web Design, Certificate in ....................................... 444
  Required Courses: .................................................................... 444
Medical Coding Certification .......................................................... 444
  Required Courses: .................................................................... 444
Microsoft Certified Desktop Support Technician ....................... 445
  Required Courses ..................................................................... 445
Microsoft Certified Systems Administrator ............................... 445
  Required Courses ..................................................................... 445
Microsoft Certified Technical Specialist: SQL 2005 ................. 445
  Required Courses ..................................................................... 445
Network+, Certificate in .............................................................. 445
  Required Courses: .................................................................... 446
Oracle DBA Associate, Certificate in .......................................... 446
  Required Courses: .................................................................... 446
Oracle DBA Professional, Certificate in ...................................... 446
  Required Courses: .................................................................... 446
Powerpoint Specialist Certificate .................................................. 446
  Required Courses: .................................................................... 446
Project Management Certificate .................................................. 446
  Required Courses: .................................................................... 447
Security+ Certificate ..................................................................... 447
  Required Courses: .................................................................... 447
Spirituality, Health, Healing ......................................................... 447
  Required Courses: .................................................................... 447
Therapeutic Massage Certificate .................................................. 447
  Required Courses: .................................................................... 448
Continuing Education Course Descriptions ............................... 448
  - A - ......................................................................................... 448
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health and Lifestyles (XPG)</td>
<td>664</td>
</tr>
<tr>
<td>Home Ownership (XPK)</td>
<td>666</td>
</tr>
<tr>
<td>House and Garden (XPI)</td>
<td>667</td>
</tr>
<tr>
<td>Insurance (XNI)</td>
<td>669</td>
</tr>
<tr>
<td>Intensive English (XGI)</td>
<td>675</td>
</tr>
<tr>
<td>Law Enforcement (XNP)</td>
<td>679</td>
</tr>
<tr>
<td>Leadership (XBZ)</td>
<td>688</td>
</tr>
<tr>
<td>Legal Education and Mediation (XNL)</td>
<td>694</td>
</tr>
<tr>
<td>Lifetime Learning (XLN)</td>
<td>697</td>
</tr>
<tr>
<td>Literature and Writing (XKL)</td>
<td>699</td>
</tr>
<tr>
<td>Management Development (XDM)</td>
<td>705</td>
</tr>
<tr>
<td>Massage Therapy (XNM)</td>
<td>717</td>
</tr>
<tr>
<td>Money Management (XPM)</td>
<td>724</td>
</tr>
<tr>
<td>Music, Gemology (XKA)</td>
<td>727</td>
</tr>
<tr>
<td>Personal Development (XKD)</td>
<td>729</td>
</tr>
<tr>
<td>Photography (XKP)</td>
<td>733</td>
</tr>
<tr>
<td>Practical Know-how (XPR)</td>
<td>735</td>
</tr>
<tr>
<td>Professional Education (XNX)</td>
<td>737</td>
</tr>
<tr>
<td>Public Events (XKE)</td>
<td>738</td>
</tr>
<tr>
<td>Railroad Training (XBR)</td>
<td>740</td>
</tr>
<tr>
<td>Real Estate and Appraisal (XNR)</td>
<td>740</td>
</tr>
<tr>
<td>Recording Engineer (XRE)</td>
<td>750</td>
</tr>
<tr>
<td>Sign Language (XVS)</td>
<td>752</td>
</tr>
<tr>
<td>Small Business (XBE)</td>
<td>753</td>
</tr>
<tr>
<td>Special Interests (XPT)</td>
<td>759</td>
</tr>
<tr>
<td>Sports Clinics-Youth (XLC)</td>
<td>762</td>
</tr>
<tr>
<td>Sports and Recreation (XYS)</td>
<td>776</td>
</tr>
<tr>
<td>Technical Trades (XND)</td>
<td>780</td>
</tr>
<tr>
<td>Testing (XVT)</td>
<td>781</td>
</tr>
<tr>
<td>Writing Center (XGW)</td>
<td>783</td>
</tr>
<tr>
<td>Youth and Talents (XLY)</td>
<td>784</td>
</tr>
<tr>
<td>Student Handbook</td>
<td>806</td>
</tr>
<tr>
<td>Faculty and Staff</td>
<td>806</td>
</tr>
<tr>
<td>Index</td>
<td>848</td>
</tr>
</tbody>
</table>