JOHNSON COUNTY COMMUNITY COLLEGE

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEB</td>
<td>General Education Building</td>
</tr>
<tr>
<td>COM</td>
<td>College Commons</td>
</tr>
<tr>
<td>EMC</td>
<td>Educational Media Center</td>
</tr>
<tr>
<td>SCI</td>
<td>Science Building</td>
</tr>
<tr>
<td>ATB</td>
<td>Arts and Technology Building</td>
</tr>
<tr>
<td>GYM</td>
<td>Gymnasium</td>
</tr>
<tr>
<td>CSB</td>
<td>Campus Services Building</td>
</tr>
<tr>
<td>LRB</td>
<td>Little Red Barn</td>
</tr>
<tr>
<td>OCB</td>
<td>Office and Classroom Building</td>
</tr>
</tbody>
</table>
JOHNSON COUNTY
COMMUNITY COLLEGE
12345 COLLEGE AT QUIVIRA
OVERLAND PARK, KANSAS 66210-1299

NOTICE OF NON-DISCRIMINATION

Johnson County Community College is committed to a policy of non-discrimination on the basis of race, age, sex, religion, color, national origin, creed, handicap, marital or parental status in admissions, educational programs or activities and employment, as specified by federal and state laws and regulations. Inquiries may be addressed to: Dr. Glen E. Gabert, Johnson County Community College, 12345 College at Quivira, Overland Park, Kansas 66210-1299, (913) 888-8500, or to Director, Office of Civil Rights, HHS, Washington, D.C. 20201.

This catalog becomes effective July 1, 1984

This catalog is for information only and does not constitute a contract. The College reserves the right to change, modify or alter without notice all fees, charges, tuition, expenses and costs of any kind and further reserves the right to add or delete without notice any course offering or information contained in this catalog.

©1984 JOHNSON COUNTY COMMUNITY COLLEGE
The College is governed by a six-member board elected at large from Johnson County. Members serve four-year terms of office.

A COMMUNITY COLLEGE BY DESIGN IS MORE DYNAMIC...

...more responsive, more immediate than traditional educational institutions. Here you can earn the first two years of a four-year baccalaureate program, take courses that will prepare you for work after you leave the community college and take continuing education classes to meet a lifetime of changing needs.

Since 1969 Johnson County Community College has been serving the needs of the local community for quality education and career training at a reasonable cost. Students at JCCC have a wide range of activities and cultural opportunities available to them as well as the personal attention and concern of a dedicated faculty.

I invite you to explore what Johnson County Community College can do for you ... and for your future.

Sincerely,

Charles J. Carlsen
President
Johnson County Community College

BOARD OF TRUSTEES

John "Jack" Cramer
Floyd Huggins
Jean Hunter
Susan Lindsay
Carol Sader
Dr. Hugh Speer

ABOUT THE COLLEGE

History
A little over 17 years ago the citizens of Johnson County made history when they created Johnson County Community College. What they envisioned was a school that would grow as the community grew and that would meet the changing needs of all its citizens.

Today JCCC is the largest of the 19 community and junior colleges in Kansas and has a reputation as a leader in community colleges across the nation.

The story of the creation of JCCC is the story of commitment of the citizens in Johnson County to the principle of life-long learning for a student body made up of all the citizens of the community.

In July of 1963, the Board of County Commissioners of Johnson County appointed a committee of
18 residents to explore the feasibility of a county community college. Their study and research was expressed in a unanimous recommendation in December 1966 that the college be established.

The next step was the formation of a Citizen's Action Committee to secure support from citizens and educational leaders for the formation of a community college district to be governed by six trustees elected at large.

JCCC became the first new college recommended for creation under the Community Junior College Act of 1965. The idea became a reality when JCCC was formally established in 1967 after a county-wide referendum approved the idea by nearly a 3-1 margin.

Four months later the Board of Trustees was elected and charged with deciding what kind of school was best for the community, finding a president and beginning to build a campus. Soon, 1,380 students were attending classes in an assortment of rented warehouses, church basements and a 75-year-old elementary school.

The present campus was completed in 1972 — six buildings housing 384,550 square feet of space on more than 200 acres of prairie grassland. A 62,000 square foot Arts and Technology Building was added in 1981 and a 60,000 square foot Office and Classroom Building in 1984.

The real story of JCCC, however, is lodged in its programs and classes. JCCC offers more than 37 career programs and more than 400 separate courses in general studies, communications, mathematics, the humanities, the natural and social sciences and in community and continuing education.

JCCC’s quality programs attract 8,100 students each semester and more than 19,000 participants annually in community service and continuing education programs and events.

When it’s all added, the success of Johnson County Community College is an expression of the conviction that JCCC and the community which began and supports it are united in commitment to lifelong learning for everyone.

- Counsels students making educational decisions;
- Counsels individuals making vocational and life decisions;
- Helps individuals find job placements;
- Provides facilities for recreation, cultural and educational activities;
- Maintains an open-door policy for college admission (may have specific requirements for individual programs);
- Provides technical, para-professional and professional programs needed in the community;
- Provides support services to local business, government, industry and community organizations through utilization of the college facilities and talents of staff and students;
- Holds forums, conferences, institutes, short courses.

League for Innovation
Johnson County Community College is a member of the League for Innovation in the Community College. League membership includes 18 of the most innovative community college districts in the nation. The stated aim of the League for Innovation is to encourage and evaluate innovation and experimentation designed to improve all aspects of College operation.

KCRCHE
JCCC is a member of the Kansas City Regional Council for Higher Education (KCRCHE), a cooperative of 17 colleges and universities in the Kansas City area. These institutions work together to extend the resources available to their students and to provide quality educational services.

KCRCHE’s current program emphasis is on professional development, enrollment development and resource-sharing, but KCRCHE maintains a variety of specific programs and assists member institutions with a wide range of programs through which they can share information and ideas.

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; Mental Health Technology and Nursing programs — State Board of Nursing; National League for Nursing; Paralegal Program — American Bar Association; Respiratory Therapy — American Medical Association and American Association of Respiratory Therapists; Basic Police Academy — University of Kansas.
ACADEMIC CALENDAR

SUMMER SESSION 1984
June 28 First four-week session ends.
July 2 First day of second four-week session.
July 4 Independence Day holiday. Classes
not in session. College offices closed.
26 Eight-week summer session and
second four-week session end.

FALL SEMESTER 1984
Aug. 20 Fall semester begins.
First day of credit classes.
Sept. 3 Labor Day. Classes not in session.
College offices closed.
Nov. 22-23 Thanksgiving holiday. Credit classes
not in session. College offices closed.
Dec. 19 Last day of fall semester classes.
Dec. 24-Jan. 1 Christmas and New Year's holidays.
College offices closed.

SPRING SEMESTER 1985
Jan. 16 Spring semester begins.
First day of credit classes.
Feb. 18 Presidents' Day. Classes not in
session. College offices closed.
19 In-service day. Classes not in session.
College offices open.
March 18-23 Spring recess. Credit classes not in
session. College offices open.
May 20 Commencement
21 Last day of spring semester classes.
27 Memorial Day. Classes not in session.
College offices closed.

SUMMER SESSION 1985
REGULAR AND SESSIONS
June 3 Eight-week summer session and first
four-week session classes begin.
27 First four-week session ends.
July 1 Second four-week session classes
begin.
July 4 Independence Day holiday. Classes
not in session. College offices closed.
July 25 Eight-week summer session and
second four-week session end.

The center of campus
community life at JCCC is
the College Commons
where the cafeteria, book-
store, student activities
center and other facilities
are offered.

For information about
special events and activi-
ties for students, visit the
Student Information Desk
in the College Commons.
ADMISSIONS

Admissions Procedures
Textbooks
Address/Name Changes
Foreign Students
Resident Aliens
High School Students
Disabled Students
Registration
Tuition and Fees
Refunds
ADMISSIONS PROCEDURES

Can anyone go to Johnson County Community College?
JCCC has an open door admission policy. Admission is open to all persons 18 years of age or older or anyone who has completed a high school education or equivalent and who may benefit from college-level instruction. The only exception is high school students who have completed 15 units and have written approval from their high school principals. Non-residents of Johnson County may be accepted on a space-available basis.

Admission to JCCC does not guarantee enrollment in any specific program or class. JCCC may deny admission or re-admission to anyone considered detrimental to the best interest of the college community.

How do I apply for admission?
If you are enrolling at JCCC for the first time, follow these steps:

1. Complete an application form and return it to the Admissions/Records Office. Application forms are available in the Admissions/Records Office.

2. Provide your high school transcripts.
Request that your high school send your transcripts directly to the JCCC Admissions/Records Office. You do not need to submit high school transcripts if you have been out of high school five years or more.

3. Provide your college transcripts if you are transferring to JCCC from another college. Request that all the institutions you have attended in the past mail your transcripts directly to JCCC Admissions/Records Office. Your transcript record at JCCC will be withheld if your transcripts are not submitted.

4. Determine if you are a resident or non-resident. Kansas law requires that you live in the state six months before you are considered a resident. Non-residents at JCCC must pay out-of-state tuition and fees — $62.50 per semester credit hour. If you have questions about residency requirements, see the director of Admissions/Records.

5. Provide your American College Testing (ACT) scores. You are encouraged — but not required — to submit your ACT scores unless you are entering the Nursing or Dental Hygiene career programs. Both those programs require you to submit ACT scores by Feb. 15. If you plan to submit your scores, take the ACT test as early as possible and request that your scores be sent to JCCC. ACT scores also are required for all students enrolling in any entry-level English courses. If you have not taken the ACT and plan to enroll in an entry-level English course you will be required to take the JCCC English assessment test. For more information contact the Testing/Assessment Center.

6. Attend the reading, math and English assessment session. You will need to attend an assessment session in the Testing/Assessment Center. The assessment will indicate your level of skills in English, reading and math. The reading assessment is 25 minutes long, the writing assessment is 40 minutes long and the math assessment will require 20-30 minutes to complete. If you are enrolling in your first English or math course at JCCC, you are required to take the appropriate assessment test in the Testing/Assessment Center.

7. Fulfill any special entrance requirements of the career program you plan to enter. Contact the career program coordinator, counselors or the Admissions/Records Office for complete details.

If you previously attended JCCC...
If you previously attended JCCC, refill an application form with the Admissions Office. You also need to provide an official transcript of all college credits you’ve earned since you last attended JCCC.

OTHER INFORMATION

How much will my textbooks cost?
Your textbooks probably will cost from $100 to $150 per semester. You may purchase your textbooks at the JCCC Bookstore, located in the College Commons.

Who do I notify if I change my name or address?
Notify the Admissions/Records Office immediately by submitting in writing your old and new name or address. If you don't alert the Admissions/Records Office of the change, you may miss important College mailings.

Does JCCC offer summer sessions?
JCCC offers both four- and eight-week summer sessions and mini sessions each year. For more information contact the Admissions Office.

SPECIAL STUDENTS AT JCCC

Foreign Students
If you are a foreign student, you need to apply for admission and supply required documents within these deadlines:
► June 1, if you are applying for fall semester
► Oct. 1, if you are applying for spring semester
► March 1, if you are applying for summer session

You also must take the Test of English as a Foreign Language (TOEFL).

If you are transferring to JCCC from another institution, file all additional documents at least one month before classes begin. For more information, contact the director of Admissions, Records and Financial Aid.

Resident Aliens
JCCC is required by federal law to enroll non-immigrant alien students. You must establish your status as a resident alien when you apply by providing your Resident Alien card number. You also are required to meet with a counselor for academic evaluation and course placement after completing a
JCCC English as a Second Language assessment test. The director of Admissions, Records and Financial Aid will determine the final evaluation and admission of resident alien students.

COLLEGE NOW: College Credit Programs for High School Seniors
JCCC's COLLEGE NOW program offers two options for high school students who want to earn college credit while they are still in high school:
- High school students who have completed at least 15 credits are eligible to enroll concurrently in classes at JCCC with the approval of their high school counselor or principal.
- High school students enrolled in high school honors classes can earn college credit for many of those classes. A new agreement among area high schools, JCCC and the University of Kansas identifies specific high school honors courses that qualify for college credit.

If you are interested in JCCC's COLLEGE NOW program, contact your high school counselor or JCCC's director of Admissions, Records and Financial Aid.

Disabled Students
Disabled students at JCCC have access to a variety of support services including interpreting, notetaking, tutoring and other services to allow the disabled student full participation in classes. The buildings are equipped with ramps, elevators and restrooms designed to accommodate wheelchairs. Parking areas convenient to the buildings are reserved for disabled students. If you would like more information about services, activities and facilities available to disabled students, contact the director of Special Services.

REGISTRATION
After I am admitted, how do I register for classes?
Registration at JCCC is easy. First, you need to meet with your JCCC counselor to develop an educational plan. Your counselor will tell you about prerequisites for courses, the transferability of courses and the sequence in which you should take them.

After your questions have been answered and your plan developed, you are ready to register. The exact time and day you must register will be in the schedule of credit classes available each semester at the Admissions/Records Office. This schedule also details the registration procedures you need to follow.

You must pay all tuition and fees at the same time you register!

Can I take advantage of early registration?
Early registration is open to students who have submitted admission applications or who are currently enrolled. During early registration, you may register over the phone at times specified in the Early Registration schedule available in the Admissions/Records Office. See the schedule for complete details.

TUITION AND FEES

Kansas residents:
Tuition ........ $18.00 per semester credit hour
Commons fee .... $1.50 per semester credit hour
Student Activity fee .... $1.00 per semester credit hour
TOTAL PER CREDIT HOUR ........ $20.50

Out-of-state and foreign students:
Tuition ........ $60.00 per semester credit hour
Commons fee .... $1.50 per semester credit hour
Student Activity fee .... $1.00 per semester credit hour
TOTAL PER CREDIT HOUR ........ $62.50

The JCCC Board of Trustees has the right to change these tuition and fees. Changes in tuition or fees will be published before they are effective. Some of your courses may require fees in addition to tuition. Check the Credit Class Schedule, where any additional fees will be listed. Pay all tuition and fees in the Business Office.

Remember, you must pay all tuition and fees when you enroll. You may not graduate or have a transcript issued until all your tuition and fees are paid.

Is it possible to register after classes begin?
You may register late for classes but you will be charged a $10 late registration fee.

Will I get a refund if a class is canceled or if I withdraw?
You will get a full refund of tuition and fees if JCCC exercises its right to cancel a class. If you withdraw from a class, you may get a partial refund. Apply for a refund through the Admissions/Records Office by presenting your validated copy of the registration form and completing a drop form. If you have completed registration and you withdraw from a class or classes in which you are enrolled, you will receive the following refund:
- 100% of tuition and fees paid if your withdrawal is processed by the Admissions/Records Office before — but not on — the first day of the semester, term or session;
- 80% of tuition and fees paid if your withdrawal is processed by the Admissions/Records Office:
  - within two weeks after the beginning of classes for fall and spring semesters;
  - four calendar days after the beginning of classes for an eight-week term;
  - two calendar days after the beginning of classes for a four-week session;
  - one calendar day after the beginning of classes for a two-week mini session, a short course or a seminar.
- No refund will be authorized for withdrawals or changes in registration made after the calendar days as specified. The only exceptions are if the class is cancelled by the College or if you have a valid reason for withdrawing from a class. A 100% refund of tuition and fees is calculated based upon the day you officially drop the class in the Admissions Office and not when you stop attending the class.

If you are a high school student, you may be eligible to enroll in classes at JCCC, thanks to JCCC's College Now program.

For information about new courses not listed in this catalog, contact a JCCC counselor or the division director.
FINANCIAL AID

Application Procedures
Types of Aid Available
Satisfactory Academic Progress Policy
Veterans Financial Aid Benefits
FINANCIAL AID

Does JCCC offer financial aid to its students? JCCC makes available grants, scholarships and long-term and short-term loans to both full-time and half-time students. Some part-time employment opportunities also are available to students, depending on availability of jobs.

How is financial need determined? Most financial aid is awarded to students who show financial need. Your financial need is based on the amount of money your parents and/or you should be able to contribute to your educational costs at JCCC.

The Financial Aid Office will make every effort to meet the financial needs of each qualified student. JCCC's ability to meet each student's financial need is based on the availability of local, state and national funds.

JCCC assesses your financial need through a fair, objective form called the Family Financial Statement provided by the American College Testing Program. If you are applying for financial aid based on need, you will have to submit a completed Family Financial Statement and the required fee to the office designated on the form. Family Financial Statement forms are available in the Financial Aid Office.

If you are financially independent of your parents, you should follow the same financial procedure as other students, but you are not required to provide financial information about your parents.

How do I apply for financial aid? Complete an application for admission to JCCC. Then contact the Financial Aid Office for the appropriate application form. You should submit financial aid applications by June 1 for the fall semester and by Dec. 1 for the spring semester. Your aid application is complete only when you have provided all the required forms and validation documents.

How will I know if I am awarded financial aid? You will be notified through the mail as soon as possible.

What types of aid are available?

- **Pell Grant:** The Pell Grant is funded by the federal government. If you are eligible, you can receive up to $1000 for the academic year at JCCC. The grant can apply toward any educationally-related expenses.

- **Supplemental Educational Opportunity Grants (SEOG):** This government grant ranges from $200-2000 and can apply toward any education-related expenses. You are eligible if you can show need.

- **Board of Trustees Grant (BOT):** The Board of Trustees grants are financial awards made to JCCC students who are or who will be enrolled in a minimum of six credit hours. Only Johnson County residents are eligible. The grants, which are designed to help defray school costs, are authorized by the JCCC Board of Trustees. Funds are limited and competition is keen.

- **Foundation Grants:** You must fulfill unique qualifications before you are awarded this grant which is administered by the JCCC Foundation. For a list of these grants and their special qualifications, contact the Financial Aid Office.

- **National Direct Student Loan (NDSL):** This federal government loan is processed through JCCC. The loans range from $2000-1500 a year. You may borrow a maximum of $3000 while enrolled at JCCC. The loan is interest-free while you are enrolled at least half-time. Six months after you leave JCCC, you must begin repaying the loan.

- **Guaranteed Student Loan (GSL):** This loan is from a bank, savings and loan, or credit union. The loan is interest-free as long as you are enrolled at least half-time. Six months after you leave school you must begin repaying the loan. For additional information contact the Financial Aid Office.

- **Plus Loan:** This loan is administered by a bank, savings and loan, or a credit union. Eligible independent students or parents of dependent students may borrow up to a maximum amount specified by federal law. You must begin to repay this loan 60 days after you receive the check. For additional information contact the Financial Aid Office.

- **College Work Study Program:** In this federally-funded program, students work part-time on campus. The pay will vary with the position and pay checks are issued on the College's regular pay dates.

When will I receive the funds? No funds will be disbursed to students until the first day of classes.

There are no tuition waivers or partial payment plans. If your aid is not enough to pay what you owe, you must pay that balance at that time. If you have not signed and returned your offer of financial assistance, you must pay for your tuition and fees according to the payment policy.

Satisfactory Academic Progress Policy for Financial Aid Recipients

Federal regulations require that you must be making "satisfactory academic progress" toward a certificate, degree or transfer program to be eligible for aid from any of these federal aid programs: Pell Grant, NDSL, SEOG, CSWSP, Plus Loan, GSL, and Veterans Assistance.

JCCC has developed a standard for evaluating your effort to achieve an educational goal at JCCC which all recipients of student financial assistance, including federal assistance and institutional-based assistance, must meet.
What is "satisfactory progress?"
All full-time (12 credit hours or more) students must maintain these standards to be eligible for financial aid:

<table>
<thead>
<tr>
<th>Maximum No. of Semesters</th>
<th>Minimum No. of Total Hours</th>
<th>Minimum Cumulative GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8</td>
<td>1.0</td>
</tr>
<tr>
<td>2</td>
<td>16</td>
<td>1.2</td>
</tr>
<tr>
<td>3</td>
<td>24</td>
<td>1.4</td>
</tr>
<tr>
<td>4</td>
<td>32</td>
<td>1.6</td>
</tr>
<tr>
<td>5</td>
<td>40</td>
<td>1.7</td>
</tr>
<tr>
<td>6</td>
<td>48</td>
<td>1.8</td>
</tr>
<tr>
<td>7</td>
<td>56</td>
<td>1.9</td>
</tr>
<tr>
<td>8</td>
<td>64</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Requirements for students enrolled as 3/4 time (9-11 hours), 1/2 time (6-8 credit hours) or part-time (1-5 credit hours) will be prorated. See the Financial Aid Office for a list of prorations.

Courses in which you earn a "F" (Failure), "I" (Incomplete), "W" (Withdrawn) or "R" (Repeated) do not count toward the minimum number of hours requirement. The "F" grade will, however, be included in the computation of the cumulative grade point average.

What is "financial aid probation?"
If you are deficient in either hours or grade points during a semester, you will be placed on financial aid probation for one semester. During probation, you will continue to receive financial aid. Before enrolling for the probationary semester, you should see a counselor for advice on regaining academic progress. Your performance again will be measured at the end of the probationary semester and you either will be reinstated or placed on financial aid exclusion.

You will be placed on financial aid probation only if it is possible for you to complete the qualifications for satisfactory progress during the probationary semester. Otherwise you will be placed on financial aid exclusion.

What is financial aid exclusion?
If you are on financial aid exclusion you will be denied financial assistance until you can meet the qualifications for satisfactory progress. Financial aid exclusion does not mean you will be removed from school. You may continue at JCCC but you will not receive financial aid until you meet the minimum standards of satisfactory academic progress.

What happens to financial aid if I withdraw?
If you do not successfully complete any credit hours you automatically will be placed on financial aid exclusion and can be placed on financial aid probation only by appeal.

Standard college refund/repayment policies and procedures will be followed if you withdraw for any reason during the semester after student aid checks have been distributed. JCCC refund/repayment policies could require you to immediately repay all or a percentage of the funds received. If you withdraw because of a personal family emergency or a personal medical condition, documented in writing, you may appeal to the Dean of Student Services for refund consideration.

How often can you change programs?
A change of program is a change of educational goal toward a degree, certificate or transfer program that requires different courses.

With a counselor's approval, you may change programs a maximum of two times. When you must change more than two times due to circumstances beyond your control, you first must complete the appeal process outlined below. If you change programs you will be evaluated for academic progress using course work completed in both old and new programs.

How do you appeal discontinuation of financial aid?
If financial aid is discontinued because of lack of academic progress, you may appeal the decision in writing through the Financial Aid Office. You must submit the appeal to the Financial Aid Office in writing within 15 calendar days of the notice of aid termination. Your written statement should include supporting statements from medical personnel or academic advisors.

Forward all appeals and supporting documents to:
Financial Aid Office
Johnson County Community College
12345 College at Quivira
Overland Park, Kansas 66210-1299

The Student Affairs Committee will review appeals within 15 working days after receipt of all written documents. The decision of the Student Affairs Committee is final. You will be notified of this decision in writing.

Veterans
If you are a veteran, you may be eligible for educational benefits under the G.I. Bill of Rights. And if you are planning to attend JCCC, you must establish your eligibility by completing the appropriate forms in the JCCC Financial Aid Office.

The benefits you will receive will be based on this schedule:

<table>
<thead>
<tr>
<th>Credit Hours Enrolled*</th>
<th>You Will Be Eligible For:</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 or more semester hours</td>
<td>full time benefits</td>
</tr>
<tr>
<td>9-11 semester hours</td>
<td>3/4 time benefits</td>
</tr>
<tr>
<td>6-8 semester hours</td>
<td>1/2 time benefits</td>
</tr>
<tr>
<td>1-5 semester hours</td>
<td>tuition and fees</td>
</tr>
</tbody>
</table>

*Fewer hours needed for benefits during summer semester. Check with the Financial Aid Office.

Before you register, your courses and program must be approved by a JCCC counselor. Remember, you must attend all your classes regularly in order to receive educational benefits.

Veterans must meet the same standards of Satisfactory Academic Progress (see above) as all other financial aid recipients at JCCC. If you are determined as not making satisfactory academic progress, you will not receive veterans benefits unless you have VA written approval.

The Child Play Center, located in 252 COM, is a child care center student-parents may take advantage of.
ACADEMIC INFORMATION

Attendance
Courses by Arrangement
Independent Study
Travel for Credit
International Education
Advance Standing Credit
KCRCHE
Grading System
Honors
Academic Progress
Associate of Arts Degree
New Degree Requirements
Intent to Graduate
Commencement Exercises
Graduation With Honors
Certificate Program
ACADEMIC INFORMATION

ATTENDANCE
You are responsible for regularly attending the classes and laboratory sessions in which you enroll. There is no policy which permits your grades to be lowered for non-attendance. However, your instructors may consider class participation, examinations and group work when determining your final grade. If you must fulfill special attendance requirements to satisfactorily complete a class, your instructor will inform you in writing at the beginning of the semester. When you are absent from class, you still will be responsible for making up any work or assignments you miss. If you are receiving benefits from a government agency, you must follow any policies the specific agency stipulates.

COURSES BY ARRANGEMENT
JCCC courses by arrangement are for those students who find it impossible or undesirable to attend regular courses on campus. You may complete a course by arrangement out of the classroom and on a schedule you arrange with an instructor. Before you enroll in a course by arrangement, contact the instructor (or the division director if the instructor is unavailable) who can tell you how much instructor-contact the course requires and how your performance will be measured. See the Credit Class Schedule for the courses available by arrangement each semester.

INDEPENDENT STUDY
You may explore in depth an area not covered in the regular curriculum by enrolling in independent study. You must show above average performance in the area to be eligible. For details, contact the division director of the area in which you are interested.

TRAVEL FOR CREDIT
In a travel-for-credit class, you may earn from one to three credits while pursuing special interests through guided travel, reading and instruction. Travel is carefully planned and supervised by instructors. A list of travel-for-credit courses offered each semester is available in the Credit Class Schedule.

INTERNATIONAL EDUCATION
International education at JCCC spans the entire range of College activities — from credit and non-credit courses and independent study to travel-for-credit. It has even touched the athletic events at the College — JCCC has hosted Asian basketball and baseball teams.

The curriculum reflects the international education effort with classroom instruction offered in Spanish, French and German and through self-study courses in Chinese and Japanese. In addition, international approaches are evident in courses in such areas as sociology, social problems, anthropology, history, political science, international relations and in some business and economics courses.

As part of the international relations program, JCCC maintains a sister college relationship with two colleges in Taiwan: the Taichung Institute of Commerce and the Taiwan Academy of Arts.

ADVANCED STANDING CREDIT
If you have become knowledgeable in a particular area through self study, work experience or courses, you may be eligible to receive advanced standing credit. You may receive up to 30 hours of credit for non-classroom experiences. Following are several ways you can do it. For complete details, including scores required, contact the Testing/Assessment Center. One college credit must be earned in residence before advanced standing credit will be awarded and placed on your transcript.

• College Level Examination Program (CLEP):
You may gain credit through CLEP if you have knowledge of general information equivalent to that of a college freshman. The subject examination tests you in a specific area. Anyone may take the CLEP, regardless of age or education. If you're interested in taking the CLEP exam, apply at the Testing/Assessment Center.

• College Entrance Examination Board (CEEB):
The CEEB test is offered at high schools during the third week of May. You will be granted advanced standing credit if you score 3, 4 or 5.

• Credit by Examination:
You may receive college credit through successful performance on a comprehensive examination. The exam may be a locally-developed departmental exam or a nationally-standardized exam. Credit by examination is not available for all courses offered at JCCC. You will be charged a fee to take the examination. Contact the Testing/Assessment Center for more information.

• Military Service:
You will be granted six semester hours of health and physical development credit at JCCC by presenting when you apply a copy of Form DD-214 if you are discharged or Form D-295 if you are active. You may be granted credit for military educational experiences based upon the recommendations of the Commission on Accreditation of Service Experiences which is approved by the American Council on Education. Your military service educational experience must be similar to course work offered at JCCC. Military educational experience applications are available in the Admissions/Records Office.

• Experience Based Education:
Your life experiences (work or personal) or your experience in area vocational-technical schools or proprietary schools also may earn you credit. Contact the Testing/Assessment Center if you think you qualify. You will be charged a non-refundable fee upon application.

• Credit transferred from other colleges:
You may transfer up to 45 hours of credits you earned at another college toward an associate of arts degree. Credit will not be awarded for courses you repeat at JCCC. JCCC is unable to evaluate transfer credit from foreign colleges and universities attended by resident aliens. The director of Admissions/Records will determine the final evaluation and acceptance of transfer credit.

Transfer credit is accepted from institutions accredited by or holding candidacy status in the North Central Association of Colleges and Schools, Middle
States Association of Colleges and Schools, Northwest Association of Schools and Colleges, Southern Association of Colleges and Schools — Commission on Colleges, and the Western Association of Schools and Colleges. For information concerning the acceptance of transfer credits, contact the director of Admissions/Records.

KCRCHE
Through its affiliation with the Kansas City Regional Council for Higher Education, Johnson County Community College is able to offer its students access to the courses and programs at colleges and universities in the Kansas City area. Johnson County Community College students can take one course per semester at any of these colleges at the JCCC tuition rate.

This program provides a rich resource especially if you are interested in developing a creative academic program. Lists of courses are available in the Admissions Office. For more information contact the director of Admissions/Records. Additional information is available through the Office of the Regional Council, 912 E. 63rd Street, Kansas City, Missouri 64110.

GRADING SYSTEM
JCCC uses both the regular grading system and the pass/fail grading system.

Regular Grading System
JCCC uses these grades to indicate how well you achieved the educational objectives of a course:

A — outstanding achievement of objectives
B — highly satisfactory achievement of objectives
C — adequate achievement of objectives
D — passing, marginal achievement of objectives
F — no credit, unsatisfactory achievement
W — withdrawal, without academic assessment (You may withdraw from a class up to one week before the last day of the semester. You will receive a "W" on your transcript if you withdraw after the official state reporting date of the 20th day of class and after one fourth of the summer or mini session has been completed. You will be considered withdrawn from a class only after you have completed a drop form in the Admissions/Records Office — not when you stop attending class.)
I — incomplete (You will receive this grade only if special circumstances prevent you from completing the course. Your instructor can explain how to complete the course. Usually you do not have to re-enroll in the class, but you will have to complete all course work by the end of the following semester. An "I" will be changed to "F" if the instructor does not initiate a grade change by the end of the semester following the grading period for which the "I" was given.)
R — repeated course (Whenever you repeat a course, only the later credit and grade you earn will be used in computing your grade point average. The earlier grade for the course will be charged to "R.")

Pass/Fail Grading System
You may wish to choose the pass/fail option if you want to explore courses outside your usual range of subject matter.

Here are the grades you may earn:
P — credit earned
F — no credit
W — withdrawn

You need a counselor's approval before you choose the pass/fail grading system. You may enroll in only one course a semester under this option. If you choose this option, you must complete a form in the Counseling Center before the ninth week of the semester or the midpoint of a summer or mini session.

*Some schools, scholarship committees and honorary societies do not accept this grading system and may convert grades of "P" to "C" when computing grade point averages or in some other way may penalize you.

Grade Point Average
A = 4 grade points per semester credit hour
B = 3 grade points per semester credit hour
C = 2 grade points per semester credit hour
D = 1 grade point per semester credit hour
F = 0 grade point per semester credit hour

The total grade points you accumulate are divided by the total semester credit hours for which you were enrolled, excluding the semester credit hours for which a "P" or "W" or "R" or "I" were assigned. The result is your accumulated grade point average.

HONORS
You will receive Dean's honors if you are enrolled in and complete a minimum of 12 credit hours and earn an overall grade point average of 3.0 or higher during any semester. You will receive President's honors if you maintain an average of 3.5 or above. Honors notification will be indicated only on your final grade card.

ACADEMIC PROGRESS
If you are not making satisfactory academic progress, contact your counselor. A counselor will help you reassess your program, motives, interests and aptitudes and help you decide whether you should change your program or get additional assistance.

Here are JCCC's guidelines for "satisfactory academic progress:"

Upon completion of
15 credit hours .................. 1.25
30 credit hours .................. 1.65
45 credit hours .................. 1.75

ASSOCIATE OF ARTS DEGREE
(Requirements prior to Fall 1985)
You must successfully complete a minimum of 60 semester credit hours in an approved program with a cumulative grade point average of 2.0 to earn an A.A. degree. You must earn a minimum of 15 of those credit hours in residence at JCCC and be currently enrolled during the term in which you wish to graduate. Credits earned through non-classroom experiences are not considered resident credits.

An approved program is one you develop and your counselor approves to meet your requirements for graduation.

In 1983, 85 percent of JCCC's students gave their instructor an "A" in quality of instruction.
NEW DEGREE REQUIREMENTS

Beginning in the fall 1985, JCCC will award three degrees: an Associate of Arts, an Associate of Science and an Associate of Technical Arts degree.

General Requirements for the Associate Degree:
- You must successfully complete a minimum of 64 semester hours of credit in an approved educational program.
- You must earn a minimum of 15 semester hours of credit in residence at JCCC and a cumulative GPA of 2.0 or better. Advanced standing credit will not count toward satisfying the 15 credit hour residency requirement.
- If you're pursuing an associate degree, your program must be approved by a counselor.
- You must be enrolled at JCCC at the time you anticipate completing degree requirements. You also must file an intent to graduate form in the Admissions Office by Nov. 1 for the fall semester, by Apr. 1 for the spring semester and by Jul. 15 for the summer session. Your degree status will be recorded on your permanent transcript upon certification of completion of the graduation requirements.
- You must demonstrate competency in the basic skills — reading, writing, computation and in the use of a computer.

Associate of Arts Degree Requirements:
- The 64 hours of credit you need to complete the Associate of Arts Degree must include:
  Communications ........................................ 9 hours
  (must include Composition I and an Oral Communications class)
  Social Science and/or Economics ................. 6 hours
  Humanities and/or Fine Arts .................... 6 hours
  (History is included in this category)
  Science and/or Mathematics .................. 9 hours
  (must include one course from Science and one from Mathematics)
  Health and/or Physical Development .......... 1 hour

Associate of Science Degree Requirements:
- The 64 hours of credit you need to complete the Associate of Science Degree must include:
  Communications ........................................ 6 hours
  Social Science and/or Economics ............... 3 hours
  Humanities and/or Fine Arts .................... 3 hours
  Science and/or Mathematics .................. 12 hours
  (must include one course in Mathematics and one in a Laboratory Science)
  Health and/or Physical Development .......... 1 hour

Associate of Technical Arts Degree Requirements:
- The 64 hours of credit you need to complete the Associate of Technical Arts degree must include:
  Communications ........................................ 3 hours
  Social Science and/or Economics ............... 3 hours
  Humanities and/or Fine Arts .................... 3 hours

Science and/or Mathematics .................. 3 hours
Health and/or Physical Development .......... 1 hour
For additional information concerning degrees and requirements, contact a JCCC counselor.

INTENT TO GRADUATE
You must file written notice of intent to graduate in the Admissions/Records Office by the following dates:
- Nov. 1 for fall graduation
- Apr. 1 for spring graduation
- Jul. 15 for summer graduation
Appeal to the director of Admissions/Records if you wish to extend these deadlines.

COMMENCEMENT EXERCISES
Your degree status will be included on your permanent record as soon as you meet the graduation requirements and you will receive a diploma. Commencement will be held only once a year in May. All graduates will be encouraged to participate.

GRADUATION WITH HONORS
You will graduate "with honors" if you earn an overall grade point average of 3.5 or more in all credit courses that you have completed.

CERTIFICATE PROGRAM
You will be awarded a certificate of completion if you successfully complete a Board of Trustees-approved program that usually takes one year or less to complete and if you maintain a cumulative grade point average of 2.0 in prescribed course work. Usually, you will be awarded a certificate of completion when you complete any of these programs:
- Automotive Technology
- Emergency Medical Technology
- Emergency Mobil Intensive Care Technician
- Emergency Services Dispatcher Certification
- Energy Technology
- Family Economics
- Fire Service Administration
- Fire Prevention
- Fire Protection
- Hospitality Management
- Life and Home Management
- Mental Health Technology
- Paralegal
- Secretarial
- Welding
Most of the College's present campus was completed in 1972 on 220 acres of prime prairie grassland.
PROGRAMS OF STUDY

Transfer Programs
Career Programs
TRANSFER PROGRAMS

Johnson County Community College is officially accredited by the North Central Association of Colleges. Credits generally are accepted by most colleges and universities in the United States. Even though most courses at JCCC transfer to most colleges and universities, check with a JCCC counselor to be sure courses are applicable to the degree you are seeking.

JCCC offers the first two years of most college baccalaureate degree programs. You can attend JCCC for your first two years, earn an Associate of Arts degree and then transfer to a four-year institution without loss of time or credit. You can do this by following a transfer program. There are three types of transfer programs: the University Transfer Program, the Individualized Transfer Program and the University Transfer Program for Undeclared Majors.

UNIVERSITY TRANSFER PROGRAMS

These transfer programs are updated and approved annually by these four-year colleges and universities:

- Avila College
- Baker University
- Emporia State University
- Kansas City Art Institute
- Kansas State University
- Mid-America Nazarene College
- Ottawa University
- Pittsburg State University
- Rockhurst College
- St. Mary College-Leavenworth
- University of Kansas
- University of Missouri-Kansas City
- Washburn University
- Wichita State University

You may obtain copies of these programs in the Counseling Office. Since the four-year schools do change degree requirements, check periodically for updates in the Counseling Office. You should realize not all majors are available at all colleges. University Transfer Programs are available for the following majors:

**Business**
- Accounting
- Business Administration
- Finance
- Management
- Computer Science
- Information Systems

**Education**
- Early Childhood
- Elementary/Secondary
- Physical Education
- Special Education
- Recreation

**Engineering**
- (Pre-Engineering)
- Architecture
- Chemical Engineering
- Civil Engineering
- Electrical Engineering

**Home Economics**
- Interior Design
- Fashion Marketing

**Liberal Arts**
- Art
- English
- Foreign Language
- Journalism
- Music
- Philosophy
- Speech
- Theater

**Science and Math**
- Biology
- Chemistry
- Geology
- Mathematics
- Physics

**Social Science**
- Economics
- History
- Political Science
- Psychology
- Social Work
- Sociology

**Medicine and Health**
- Pre-Veterinary
- Pre-Med
- Pre-Pharmacy
- Pre-Dental
- Nursing
- Physical Therapy
- Respiratory Therapy

INDIVIDUALIZED TRANSFER PROGRAMS

If you plan to attend a four-year college or university or choose a major not listed, you may work with a counselor to develop your own Individualized Transfer Program. Examples might include degrees such as:

- Administration of Justice
- Aerospace Engineering
- Agricultural Engineering
- Atmospheric Sciences
- Art Therapy

TRANSFER INFORMATION

The following information on four-year colleges is available through the JCCC Counseling Center:

- transfer programs for different majors at area colleges — check these sheets periodically for updates
- general information including tuition, financial aid, and housing
- course equivalencies between some four-year colleges and JCCC
- university and college catalogs
- admissions guides
- applications to some four-year colleges
- undergraduate and graduate studies guides
- financial aid and scholarship catalogs
- Transfer Information Bulletin Board
  - dates of visits from college admissions representatives
  - dates of visits for JCCC transfer students to four-year colleges
  - transfer scholarships available for JCCC students

A SAMPLE FOUR-YEAR DEGREE

This is a sample four-year degree program. Your program may vary depending on your major. See a counselor.

If you plan to transfer, select courses from general and distribution requirement areas as illustrated above. These courses, also known as general education requirements of baccalaureate (four year) degrees, will come from the five divisions listed below. The number of courses required in each division depends on the requirements of the college or university and the major field you plan to enter. Look closely at your major field requirements when planning which courses to take.

The following course suggestions may help. The sample programs are intended for use as guides.

You are encouraged to meet with your counselor concerning the revision of degrees and degree requirements effective fall 1985.
A SAMPLE FOUR-YEAR DEGREE

This is a sample four-year degree program. Your program may vary depending on your major. See a counselor.

<table>
<thead>
<tr>
<th>Total 124-128 hours</th>
<th>General Requirements</th>
<th>Distribution Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Two Years</strong> (First 60-64 hours may be taken at JCCC)</td>
<td><strong>English</strong></td>
<td><strong>Foreign Language (required for some degrees)</strong></td>
</tr>
<tr>
<td><strong>Second Two Years</strong> (Remaining 60-64 hrs.)</td>
<td>Courses taken in major field</td>
<td></td>
</tr>
</tbody>
</table>

*Math and Natural Science courses for engineering and medical fields are in a particular sequence. Note College requirements with a counselor.

**COMMUNICATIONS (3-4 courses)**
- ENGL 105 Fund of English ........... 3
- ENGL 106 Intro to Writing† ........... 3
- ENGL 121 Composition I .............. 3
- ENGL 122 Composition II ............ 3

The next 3-6 hours could be Speech and/or Literature depending on your major.
- SPD 120 Interpersonal Communication .... 3
- SPD 121 Public Speaking ............. 3

Composition II is a prerequisite for the following literature and composition courses:
- ENGL 230 Intro to Fiction ............ 3
- ENGL 231 American Writers .......... 3
- ENGL 232 Children's Literature ...... 3
- ENGL 243 Literature of Sci Fiction ... 3
- ENGL 250 World Masterpieces ......... 3
- ENGL 254 Masterpieces of the Cinema .. 3
- ENGL 222 Advanced Composition ...... 3

Some degrees (B.A.) may require foreign language. JCCC offers four semesters/16 hours each of Spanish, French, and German.
- FL 120 Elementary German 1 .......... 5
- FL 130 Elementary Spanish 1 ......... 5
- FL 140 Elementary French 1 .......... 5

**MATHEMATICS (1 course)**
At least one math course usually is required. If you are unsure of your skills, take the Math Assessment Test in the Testing Center to determine proper course selection.
- MATH 115 Intro to Algebra† ........... 3
- MATH 116 Intermediate Algebra† ...... 3
- MATH 160 Algebra* .................. 5
- MATH 171 College Algebra* .......... 3
- MATH 172 Trigonometry* .......... 3
- MATH 231 Calculus I* ................ 3

†May not transfer to some four-year colleges
*Check catalog for prerequisite

**HUMANITIES (2-3 courses)**
You may use literature courses as humanities credits.
- HUM 122 Introduction to Humanities ... 3
- HUM 133 Comparative Cultures ....... 3
- THEA 230 Introduction to Theater ..... 3
- HUM 144 Introduction to Art History ... 3

**BIOLOGICAL SCIENCES**
- BIOL 120 Life Sci (AVT Lab incl) OR ..................... 4
- BIOL 122 Principles of Biology AND ............... 3
- BIOL 123 Principles of Biology Lab .... 1
- BIOL 125 General Botany ............... 5
- BIOL 127 General Zoology ............. 5
- BIOL 130 Environmental Science ...... 3
- BIOL 131 Environmental Science Lab ... 5
- BIOL 140 Human Anatomy .......... 4
- BIOL 144 Human Anatomy/Physiology .... 5
- BIOL 205 General Genetics (no lab) .... 3
- BIOL 225 Human Physiology* .......... 4
- BIOL 230 Microbiology* .................. 3
- BIOL 231 Microbiology Lab* ............ 2

**PHYSICAL SCIENCES**
- PSCI 120 Physical Sci (AVT Lab incl) 4
- PSCI 122 Astronomy .................. 4
- PSCI 130 General Geology .......... 5
- PSCI 132 Historical Geology ...... 5
- CHEM 122 Principles of Chemistry .. 5
- CHEM 124 General Chemistry I* .......... 4
- CHEM 125 General Chemistry I Lab* ... 1
- PHYS 130 General Physics I* .......... 5
- PHYS 220 Engineering Physics I* .......... 5
*Check catalog for prerequisite

**SOCIAL SCIENCES (2-3 courses)**
History courses will transfer as humanities credits to some schools.
- ANTH 125 Cultural Anthropology ...... 3
- ANTH 126 Physical Anthropology ..... 3
- SOC 122 Sociology .................. 3
- SOC 125 Social Problems .......... 3
- SOC 131 Marriage and the Family ... 3
- PSYC 130 Intro to Psychology ...... 3
- PSYC 215 Child Development* .......... 3

A three "credit hour" course means the course will count for three hours toward a degree.

A new course numbering system was inaugurated in fall 1984. For the convenience of continuing students, previous course numbers are listed in parentheses at the end of course descriptions.
PSVC 220 Social Psychology* ......... 3
PSYC 230 Personality Theory* ........ 3
POLI 122 Political Science .......... 3
POLI 124 American Nat'l. Government ... 3
POLI 126 State & Local Government .... 3
POLI 135 International Relations ....... 3
HIST 130 European History - 1750 ... 3
HIST 140 U.S. History to 1877 ......... 3
HIST 141 U.S. History from 1877 ... 3
HIST 160 Modern Russian History ... 3
ECON 130 Basic Economics .......... 3
ECON 230 Economics I ............... 3
ECON 231 Economics II .............. 3
“Check catalog for prerequisite

GENERAL ELECTIVES
You may choose an elective course from any area. However, check with a counselor to see how it will transfer to a four-year school. You may use electives to become more knowledgeable in your field of study or as an opportunity to explore a new area of interest.

CAREER PROGRAMS
JCCC's career programs give you the opportunity to study a specific career and enter the job market directly.

Most of JCCC's 39 career programs can be completed in two years or less. There are a few you can complete in one year or less. The career programs now offered are:

Accounting
Administration of Justice/Law Enforcement
Agribusiness
Automotive Technology
Aviation Maintenance Technology
Biomedical equipment Technology
Business Administration
Chef Apprenticeship
Commercial Art
Data Processing
Dental Hygiene
Drafting Technology
Electronics Engineering Technology
Emergency Medical Technology
Emergency Medical Intensive Care Technology
Energy Technology
Equine Studies
Fashion Merchandising
Fire Protection and Public Safety
Fire Protection Administration
Home Economics
Hospitality Management
Information Word Processing
Interior Merchandising
Interpreter Training
Manufacturing Technology
Marketing and Management
Medical Laboratory Technology
Mental Health Technology
Metal Fabrication
Nursing (RN)
Occupational Therapy Assistant

Paralegal
Physical Therapy Assistant
Radiologic Technology
Recreational Leadership
Respiratory Therapy
Secretarial Careers
Small Animal Health

Each program has been designed with the assistance of a community advisory committee composed of men and women currently working in the field who are well aware of the requirements — and job potential — in today's market.

If you decide on additional college work, many of the career program courses will transfer to four-year colleges and universities. Several of the career programs also offer you a chance to gain valuable work experience in the community while you study.

Contact the program coordinator or a JCCC counselor if you are interested in a career program or want more information. They can help you consider entrance requirements, course selection and sequence, and job possibilities. Remember, your careful planning and course selection can be just as important in a career program as your dedication in the classroom.

Career programs are described in detail on the following pages, and in the career brochures available in the Admissions/Records Office. You are encouraged to talk with a counselor or program coordinator before you enroll.
ACCOUNTING

The accounting area is a crucial part of any business operation. In 1980 about three million people were employed in major professional and paraprofessional accounting fields and the job outlook is better than average. Possible occupations in this field for students with a four-year degree include accountants, bank officers/managers and bookkeepers/accounting clerks.

JCCC offers the training required for an entry-level job at a paraprofessional level. You will be required to take courses in business law, accounting, data processing, economics and other business-related fields. The program features field study courses in which you gain on-the-job experience working in an approved business. Many accounting positions require a four-year degree. This two-year program may provide the initial preparation you will need to transfer. Check with a counselor to see if these courses will transfer to the four-year institution you’ve selected.

Associate of Arts Degree

First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>CR</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 121</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>ECON 230</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>SOC 122</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>PSCI 120</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>ACCT 121</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Business Electives</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td></td>
<td><strong>18</strong></td>
</tr>
</tbody>
</table>

Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>CR</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 121</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>BUS 150</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>ECON 231</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>PHIL 143</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>BIOL 122</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>ACCT 122</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>CR</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPD 120</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>MATH 171</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>ACCT 222</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>BUS 261</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>DP 124</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td></td>
<td><strong>19</strong></td>
</tr>
</tbody>
</table>

Fourth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>CR</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health or Physical Development Elective</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>HUM 122</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td></td>
<td><strong>13</strong></td>
</tr>
</tbody>
</table>

Associate of Technical Arts Degree

First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>CR</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 121</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>ECON 230</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>SOC 122</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>ACCT 121</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>MATH 120</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>CR</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>HUM 122</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>ACCT 122</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>BUS 150</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>BUS 261</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>CR</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 231</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>ACCT 222</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>DP 124</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

Fourth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>CR</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health or Physical Development Elective</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>HUM 122</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td></td>
<td><strong>13</strong></td>
</tr>
</tbody>
</table>

A career program concentrates on the skills needed for immediate job entry and usually may be completed in two years or less.

ADMINISTRATION OF JUSTICE / LAW ENFORCEMENT

More than one million people are employed in the major 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 through the 1980s.

JCCC’s career program offers you the opportunity to prepare for a career in law enforcement, probation, investigation or corrections. Check with your counselor as you develop your program plan.

First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>CR</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 121</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>SOC 122</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 121</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 124</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 127</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

A career program concentrates on the skills needed for immediate job entry and usually may be completed in two years or less.
JCCC offers a number of programs for people with special needs such as the hearing impaired, the adult mentally retarded and adults over 60.

<table>
<thead>
<tr>
<th>Second Semester</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 122 Composition II</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 130 Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 130 Crime Prevention</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 136 Police and the Public</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 154 Fund. of Criminal Investigation**</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td>15</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Semester</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>POLS 126 State and Local Government</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 133 Juvenile Delinquency</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 140 Constitutional Case Law**</td>
<td>3</td>
</tr>
<tr>
<td>Health or Phys. Dev. Elective</td>
<td>1</td>
</tr>
<tr>
<td>Program Electives</td>
<td>5</td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td>15</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fourth Semester</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SEC 110 Beginning Typing*</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 141 Criminal Law**</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 157 Patrol Procedures</td>
<td>3</td>
</tr>
<tr>
<td>Program Electives</td>
<td>6</td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td>15</td>
</tr>
</tbody>
</table>

Program Electives
(12 hours — any 4 courses)
If you are a transfer student, you may substitute relevant social science courses for program electives with approval of the program coordinator.
ADMJ 225 Defensive Tactics for Police** | 3 |
ADMJ 150 Motor Vehicle Law | 3 |
ADMJ 151 Traffic Safety/Accident Invest | 3 |
ADMJ 221 Intro to Criminalistics | 3 |
ADMJ 164 Supervisory Techniques | 3 |
ADMJ 166 Police Organization & Management | 3 |
ADMJ 281 Readings in Police Science | 3 |
ADMJ 145 Fundamentals of Private Security | 3 |
ADMJ 146 Retail Security | 3 |

**If you are certified under the Kansas Law Enforcement Training Act, you are eligible to receive or Experience-Based Education credit for some or all of these courses.

AGRIBUSINESS
In today's agriculture industry only 1 out of 17 persons is employed on farms. The remaining persons work in occupations off the farm relating to supplying agricultural inputs (seed, fertilizer, and chemicals), providing services (banking, insurance, commodity broker) or marketing agricultural products. If you aspire to become an agribusiness professional, you can become familiar with the skills and knowledge you need through JCCC's Agribusiness Program.

This two-year program focuses on agribusiness practices, business skills and a familiarity with soil, agricultural chemicals, plants, economics and computers. During the summer session, you can participate in a supervised work experience and see what it is really like to work in the field of agribusiness.

Associate of Science Degree

<table>
<thead>
<tr>
<th>First Semester</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGRI 120 Intro to Agribusiness</td>
<td>2</td>
</tr>
<tr>
<td>ENGL 121 Composition I</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 120 Life Science</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 122 Principles of Biology</td>
<td>3</td>
</tr>
<tr>
<td>and</td>
<td></td>
</tr>
<tr>
<td>BIOL 123 Principles of Biology Lab</td>
<td>1</td>
</tr>
<tr>
<td>MATH 160 Algebra</td>
<td>5</td>
</tr>
<tr>
<td>SPD 120 Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td>17</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>AGRI 220 Principles of Animal Science</td>
<td>4</td>
</tr>
<tr>
<td>ENGL 123 Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 122 Principles of Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>Elective (humanities or social science)</td>
<td>3</td>
</tr>
<tr>
<td>Health or Phys. Dev. Elective</td>
<td>1</td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td>16</td>
</tr>
</tbody>
</table>

Summer Session (optional)

| AGRI 271 Supervised Occ. Experience | 5 |

See the section "Course Descriptions" for complete details on each course.
Third Semester
BUS 141 Principles of Management .......... 3
ACCT 111 Small Business Accounting .......... 3
AGRI 225 Pesticide Use and Safety .......... 4
AGRI 235 Soil Science .......... 4
General Elective .......... 3
TOTAL HOURS .......... 17

Fourth Semester
AGRI 122 Agricultural Economics .......... 3
AGRI 240 Crop Science .......... 4
BUS 230 Marketing .......... 3
BUS 261 Business Law I .......... 3
AGRI 125 Computers in Agribusiness .......... 1
Agribusiness Elective .......... 3
TOTAL HOURS .......... 17

Agribusiness Electives
HORT 125 Horticulture I .......... 5
HORT 126 Horticulture II .......... 5
HORT 221 Herbaceous Plant Materials .......... 3
HORT 220 Woody Plant Materials .......... 3
HORT 115 Home Horticulture .......... 2
HORT 120 Fundamentals of Landscaping .......... 3

Associate of Technical Arts

First Semester – Fall
AUTO 125 Intro. to Auto Shop Practices .......... 3
AUTO 150 Auto Transmissions & Drivelines .......... 4
MATH 133 Technical Math I .......... 3
ENGL 121 Composition I .......... 3
Elective .......... 3
TOTAL HOURS .......... 16

Second Semester – Spring
AUTO 160 Auto Engines I .......... 3
AUTO 163 Auto Suspension, Steering and Brakes .......... 3
MFA 121 Introduction to Welding .......... 3
BUS 141 Principles of Management .......... 3
ENGL 123 Technical Writing .......... 3
Health or Physical Development Elective .......... 1
TOTAL HOURS .......... 16

Third Semester – Fall
AUTO 222 Auto Starting, Charging & Ignition .......... 3
AUTO 255 Auto Carburetion, Diesel
& Fuel Injection .......... 3
PHYS 125 Technical Physics I .......... 3
Electives .......... 3
Technology Elective .......... 3
TOTAL HOURS .......... 15

Fourth Semester – Spring
AUTO 230 Auto A/C, Lighting and
Power Accessories .......... 4
AUTO 235 Auto Diagnosis and Evaluation .......... 4
AUTO 240 Auto Dealership Operation .......... 3
DRAF 261 Graphic Communications I .......... 3
Elective .......... 3
TOTAL HOURS .......... 17

Technology Electives:
SMEG 125 Basic Small Engine Service .......... 3
ELEC 120 Introduction to Electronics .......... 3
AUTO 271 Auto Technology Co-op Education .......... 3

Certificate Program:

Four well-equipped modern laboratories provide an excellent opportunity for the student to develop skills in all automotive repair and service areas with the exception of auto body.

First Semester – Fall
AUTO 125 Introduction to Auto Shop Practices .......... 3
AUTO 150 Auto Transmissions & Drivelines .......... 4
AUTO 222 Auto Starting, Charging & Ignition .......... 3
AUTO 255 Auto Carburetion, Diesel
& Fuel Injection .......... 3

Second Semester – Spring
AUTO 160 Auto Engines I .......... 3
AUTO 163 Auto Suspension, Steering, Brakes .......... 3
AUTO 230 Auto A/C, Lighting and
Power Accessories .......... 4
AUTO 235 Auto Diagnosis and Evaluation .......... 4

A "course load" is the number of hours in which you are enrolled in a semester.
The following 12 credit hours must be completed in addition to the previous courses.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFA3 121</td>
<td>Introduction to Welding</td>
<td>3</td>
</tr>
<tr>
<td>MATH 133</td>
<td>Technical Math I</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 125</td>
<td>Technical Physics I</td>
<td>3</td>
</tr>
<tr>
<td>AUTO 240</td>
<td>Auto Dealership</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td></td>
<td>39</td>
</tr>
</tbody>
</table>

*Course to be taken at Maple Woods

**KAV 108, 206 and 210 may be taken on a space available basis by persons qualified by experience to sit for the FAA Airframe Mechanic Exam. This requires 18 months experience in either Airframe or Powerplant (or 30 months combined) — approval issued by the local FAA office.

### AVIATION MAINTENANCE

JCCC’s Aviation Maintenance Technology Program, offered in cooperation with Maple Woods Community College, is designed to meet Federal Aviation Administration clock hour requirements. You may pursue a certificate or associate of technical arts degree in either the Airframe Option or the Powerplant Option or in both. Clock hours are 1160 each for the powerplant and airframe sequences if taken separately and 1920 if both are taken.

Completion of either option entitles you to the appropriate certificate or degree and to sit for the appropriate Federal Aviation Administration Examination. The aviation maintenance courses are available only in the fall and the first semester courses are offered only in the fall.

Enrollment in the program is limited. You must complete a special application form and submit it as early as possible. For information about graduation requirements, contact Maple Woods Community College.

### Associate of Technical Arts Degree

#### Airframe Option

**First Semester — Fall**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>KAV 100</td>
<td>Intro. to Aviation Maintenance</td>
<td>19</td>
</tr>
<tr>
<td>ENGL 121</td>
<td>Composition I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 105</td>
<td>Technical Mathematics I</td>
<td>4</td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td></td>
<td>26</td>
</tr>
</tbody>
</table>

**Second Semester — Spring**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>KAV 102</td>
<td>Wood &amp; Fabric</td>
<td>3</td>
</tr>
<tr>
<td>KAV 104</td>
<td>Assembly &amp; Rigging</td>
<td>6</td>
</tr>
<tr>
<td>KAV 200</td>
<td>Sheet Metal &amp; Welding</td>
<td>7</td>
</tr>
<tr>
<td>KAV 204</td>
<td>Aircraft Communication, Navigation &amp; Instrumentation Systems</td>
<td>6</td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td></td>
<td>22</td>
</tr>
</tbody>
</table>

### Summer Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>KAV 106</td>
<td>Hydraulic &amp; Pneumatic Systems</td>
<td>8</td>
</tr>
<tr>
<td>KAV 202</td>
<td>Aircraft Fuel Systems</td>
<td>2</td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td></td>
<td>10</td>
</tr>
</tbody>
</table>

**Third Semester — Fall**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>KAV 108</td>
<td>Aircraft Electricity &amp; Related Systems**</td>
<td>6</td>
</tr>
<tr>
<td>KAV 206</td>
<td>Airframe Theory Survey**</td>
<td>6</td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

### Powerplant Option

**First Semester — Fall**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>KAV 101</td>
<td>Carburetion &amp; Lubrication</td>
<td>8</td>
</tr>
<tr>
<td>KAV 103</td>
<td>Aircraft Reciprocating Powerplant</td>
<td>6</td>
</tr>
<tr>
<td>KAV 105</td>
<td>Propellers</td>
<td>5</td>
</tr>
<tr>
<td>KAV 107</td>
<td>Jet Propulsion Powerplant</td>
<td>5</td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td></td>
<td>24</td>
</tr>
</tbody>
</table>

**Second Semester — Spring**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>KAV 201</td>
<td>Powerplant Testing**</td>
<td>5</td>
</tr>
<tr>
<td>KAV 205</td>
<td>Engine Instruments**</td>
<td>6</td>
</tr>
<tr>
<td>KAV 209</td>
<td>Seminar in Powerplant**</td>
<td>4</td>
</tr>
<tr>
<td>SPD 120</td>
<td>Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>Missouri Constitution*</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td></td>
<td>21</td>
</tr>
</tbody>
</table>

**Summer Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>KAV 109</td>
<td>Aircraft Ignition &amp; Starting Systems</td>
<td>4</td>
</tr>
<tr>
<td>KAV 203</td>
<td>Electricity, Generator-Alternator</td>
<td>6</td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td></td>
<td>10</td>
</tr>
</tbody>
</table>

**Third Semester — Fall**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>KAV 201</td>
<td>Powerplant Testing**</td>
<td>5</td>
</tr>
<tr>
<td>KAV 205</td>
<td>Engine Instruments**</td>
<td>6</td>
</tr>
<tr>
<td>KAV 209</td>
<td>Seminar in Powerplant**</td>
<td>4</td>
</tr>
<tr>
<td>SPD 120</td>
<td>Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>Missouri Constitution*</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td></td>
<td>21</td>
</tr>
</tbody>
</table>

*Course to be taken at Maple Woods

**KAV 201, 205, and 209 may be taken (on a space available basis) by persons qualified by experience to sit for the FAA Powerplant Mechanic Exam. This requires 18 months experience in either Airframe or Powerplant (or 30 months combined) — approval issued by the local FAA office.

### BIOMEDICAL EQUIPMENT TECHNOLOGY

A biomedical equipment technician may work for a hospital, medical equipment manufacturer, medical equipment service firm or as a field technician selling, maintaining and installing specialized electronic systems used in the health field. His or her responsi-
JCCC's Biomedical Equipment Technology Program focuses on courses devoted to the fundamentals of electronics, natural sciences and related mathematics. It also features an internship program in which you will spend six hours each week in an assigned hospital or related position. You will work on the actual equipment you will use when employed in the field.

### Associate of Science Degree

<table>
<thead>
<tr>
<th>First Semester – Fall</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEC 120 Introduction to Electronics</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 122 Circuit Analysis I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 143 Math for Electronics I</td>
<td>5</td>
</tr>
<tr>
<td>ENGL 121 Composition I</td>
<td>3</td>
</tr>
<tr>
<td>Humanities/Fine Arts Elective</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td>17</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester – Spring</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEC 125 Digital Electronics I</td>
<td>4</td>
</tr>
<tr>
<td>ELEC 130 Electronic Principles I</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 140 Circuit Analysis II</td>
<td>3</td>
</tr>
<tr>
<td>MATH 144 Math for Electronics II</td>
<td>4</td>
</tr>
<tr>
<td><strong>Programming Elective</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td>17</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Summer Semester</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 144 Human Anatomy &amp; Physiology*</td>
<td>5</td>
</tr>
<tr>
<td>*Can be taken any semester before third semester.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Semester – Fall</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEC 230 Electronic Principles II</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 225 Digital Electronics II</td>
<td>4</td>
</tr>
<tr>
<td>ENGL 123 Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>BMT 210 Biomedical Equipment Tech. I</td>
<td>4</td>
</tr>
<tr>
<td>Health or Phys. Dev. Elective</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td>16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fourth Semester – Spring</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEC 235 Electronic Principles III</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 245 Microprocessors</td>
<td>3</td>
</tr>
<tr>
<td>BMT 211 Biomedical Equipment Tech. II</td>
<td>3</td>
</tr>
<tr>
<td>BMT 271 Biomedical Internship</td>
<td>3</td>
</tr>
<tr>
<td>Social Science or Economics Elective</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td>15</td>
</tr>
</tbody>
</table>

**You must take one of the following:**

- **DP 131 BASIC for Engineering Technology** | 3 |
- **ENGR 171 Programming for Engineering and Science** | 3 |

### Associate of Technical Arts Degree

<table>
<thead>
<tr>
<th>First Semester</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 121 Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 121 Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>BUS 121 Intro to Business</td>
<td>3</td>
</tr>
<tr>
<td>DP 124 Business Data Processing</td>
<td>3</td>
</tr>
<tr>
<td><strong>Elective</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>Health or Phys. Dev. Elective</strong></td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td>16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 122 Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>BUS 141 Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 130 Intro to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>ECON 230 Economics I</td>
<td>3</td>
</tr>
<tr>
<td>BUS 261 Business Law I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 111 Fundamentals of Math</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td>16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Semester</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 222 Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 143 Ethics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 231 Economics II</td>
<td>3</td>
</tr>
<tr>
<td>BUS 230 Marketing</td>
<td>3</td>
</tr>
<tr>
<td>BUS 125 Savings and Investments</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td>15</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fourth Semester</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 271 Management Seminar I</td>
<td>3</td>
</tr>
<tr>
<td>BUS 150 Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>BUS 263 Business Law II</td>
<td>3</td>
</tr>
<tr>
<td>BUS 243 Personnel Management</td>
<td>3</td>
</tr>
<tr>
<td><strong>Elective</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td>15</td>
</tr>
</tbody>
</table>

---

**CHEF APPRENTICESHIP**

Where do great chefs get their start? Some of them, at least, have begun in JCCC's Chef Apprenticeship Program. In 1980 there were about 1,100,000 persons employed in the United States as cooks and chefs. Graduates of post-secondary school training...
programs, including associate degree and apprentice-
ship programs, appear to have the advantage when
looking for jobs.

JCCC's three-year career program features formal
coursework along with the opportunity to actually
practice your skills in baking, planning menus, food
purchasing, beverage control and preparation of food.

After job placement, you will be eligible to join the
American Culinary Federation Educational Institute
for registered apprentice membership. At this time you
also will be registered with the Department of Labor
and will be officially indentured to your supervising
chef and the sponsoring American Culinary Federa-
tion affiliate chapter.

The Chef Apprenticeship Program is accredited by the
American Culinary Federation and the U.S.
Department of Labor.

**Associate of Technical Arts Degree**

**First Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMG 121</td>
<td>Hosp. Management Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>HMG 123</td>
<td>Basic Food Preparation</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 105</td>
<td>Fund. of English</td>
<td>3</td>
</tr>
<tr>
<td>HMG 281</td>
<td>Practicum I</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL HOURS</strong></td>
<td>11</td>
</tr>
</tbody>
</table>

**Second Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMG 274</td>
<td>Seminar in Accounting</td>
<td>2-3</td>
</tr>
<tr>
<td>HMG 230</td>
<td>Intermediate Food Preparation</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 121</td>
<td>Applied Psychology</td>
<td>3</td>
</tr>
<tr>
<td>HOSP 282</td>
<td>Culinary Practicum II</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL HOURS</strong></td>
<td>10-11</td>
</tr>
</tbody>
</table>

**First Summer**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMG 275</td>
<td>Seminar: Hosp. Management</td>
<td>2-3</td>
</tr>
<tr>
<td></td>
<td>Internship</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Humanities Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL HOURS</strong></td>
<td>5-6</td>
</tr>
</tbody>
</table>

**Third Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMG 277</td>
<td>Seminar: Menu Planning and</td>
<td>2-3</td>
</tr>
<tr>
<td></td>
<td>Sales Promotion</td>
<td></td>
</tr>
<tr>
<td>HMG 223</td>
<td>Fundamentals of Baking</td>
<td>3</td>
</tr>
<tr>
<td>MATH 120</td>
<td>Business Math</td>
<td>3</td>
</tr>
<tr>
<td>HMG 285</td>
<td>Practicum III</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL HOURS</strong></td>
<td>10-11</td>
</tr>
</tbody>
</table>

**Fourth Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMG 231</td>
<td>Advanced Food Preparation</td>
<td>4</td>
</tr>
<tr>
<td>HMG 279</td>
<td>Beverage Control</td>
<td>2-3</td>
</tr>
<tr>
<td>HMEC 151</td>
<td>Nutrition and Meal Planning</td>
<td>3</td>
</tr>
<tr>
<td>HMG 286</td>
<td>Practicum IV</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL HOURS</strong></td>
<td>11-12</td>
</tr>
</tbody>
</table>

**Fifth Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMG 226</td>
<td>Food Specialties - Garde Manger</td>
<td>3</td>
</tr>
<tr>
<td>HMG 271</td>
<td>Seminar: Hosp. Management/</td>
<td>2-3</td>
</tr>
<tr>
<td></td>
<td>Purchasing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Health &amp; Phys. Dev. Elective</td>
<td>1</td>
</tr>
<tr>
<td>HMG 287</td>
<td>Culinary Arts Practicum V</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL HOURS</strong></td>
<td>8-9</td>
</tr>
</tbody>
</table>

**Sixth Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMG 128</td>
<td>Supervisory Management</td>
<td>3</td>
</tr>
<tr>
<td>HMG 228</td>
<td>Advanced Hospitality Management</td>
<td>3</td>
</tr>
<tr>
<td>SPD 120</td>
<td>Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>HMG 288</td>
<td>Culinary Practicum VI</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL HOURS</strong></td>
<td>11</td>
</tr>
</tbody>
</table>

**COMMERCIAL ART**

A commercial artist is basically involved in preparing
artwork — such as brochures and space ads — for the
print media. The greatest demand for commercial
artists, graphics artist and designers is in larger cities
although positions can be found in smaller areas.

A potential employer will ask you to bring your
portfolio when you are interviewing for a job. That's
where JCCC's career program will prove especially
valuable. A major objective of the program is to
develop a comprehensive portfolio you may show to
employers. Your work will be critiqued by a team of
professionals each semester. In the program, you also
will take part in class projects, working in JCCC's
outstanding studio facilities and developing your skills
in the area of creative problem-solving and in the use
of processes, materials, tools and equipment. Full-
time faculty and designers/artists working locally
Teach the courses.

**Associate of Arts Degree**

**First Semester — Fall**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 124</td>
<td>Design 2D</td>
<td>3</td>
</tr>
<tr>
<td>ART 129</td>
<td>Design Color</td>
<td>3</td>
</tr>
<tr>
<td>CA 130</td>
<td>Basic Representation I</td>
<td>3</td>
</tr>
<tr>
<td>PHOT 121</td>
<td>Photography I</td>
<td>3</td>
</tr>
<tr>
<td>CA 133</td>
<td>Lettering</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL HOURS</strong></td>
<td>15</td>
</tr>
</tbody>
</table>

**Second Semester — Spring**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA 131</td>
<td>Basic Representation II</td>
<td>3</td>
</tr>
<tr>
<td>PHOT 123</td>
<td>Photography III</td>
<td>3</td>
</tr>
<tr>
<td>CA 233</td>
<td>Visual Technology I</td>
<td>4</td>
</tr>
<tr>
<td>ART 223</td>
<td>Silkscreen</td>
<td>3</td>
</tr>
<tr>
<td>CA 221</td>
<td>Layout</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL HOURS</strong></td>
<td>16</td>
</tr>
</tbody>
</table>

**Third Semester — Fall**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 127</td>
<td>Design 3D</td>
<td>4</td>
</tr>
<tr>
<td>CA 234</td>
<td>Visual Technology II</td>
<td>4</td>
</tr>
<tr>
<td>CA 224</td>
<td>Visual Communications I</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Art Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL HOURS</strong></td>
<td>15</td>
</tr>
</tbody>
</table>

**Fourth Semester — Spring**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA 225</td>
<td>Visual Communications II</td>
<td>4</td>
</tr>
<tr>
<td>CA 250</td>
<td>Preparation of Portfolio</td>
<td>2</td>
</tr>
<tr>
<td>CA 271</td>
<td>Comm. Art Field Study</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Health &amp; Phys. Dev. Elective</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Electives</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL HOURS</strong></td>
<td>15</td>
</tr>
</tbody>
</table>
Part-time Students:
If you wish to enroll on a part-time basis (less than 12 hours), enroll in the following courses in the sequence listed or consult with the program coordinator.
1. Design 2D (ART 124) and/or an Art Elective
2. Basic Representation I (CA 130) and/or Lettering (CA 133)
3. Design Color (ART 129) and/or Photography I (PHOT 121)
4. Basic Representation II (CA 131) and/or Layout (CA 221)
5. Visual Technology I (CA 233) and/or Silkscreen (ART 223)
6. Design 3D (ART 127) and/or Visual Technology II (CA 234)
7. Visual Communications I (CA 224) and/or Photography III (PHOT 123)
8. Visual Communications II (CA 225) and/or Electives
9. Preparation of Portfolio (CA 250) and Commercial Art Field Study (CA 271)

COMPUTER SYSTEMS TECHNOLOGY

A computer systems technologist repairs and maintains microprocessors. To be competent in this position, you usually need a background in electronics, computers and mathematics.

JCCC's two-year program concentrates on the skills and theoretical knowledge required to fill an entry-level position. The open lab concept allows access to the electronics lab and the instruments necessary to complete the lab assignments. The lab is equipped with the type of equipment used in industry. The first-year courses are compatible with those required in the electronics engineering program. This gives you the option of starting in this program and transferring to the electronics engineering program here at JCCC. Successful completion of the computer systems technology program leads to an associate of science degree.

Associate of Science Degree

First Semester — Fall
ELEC 120 Introduction to Electronics .................. 3
ELEC 122 Circuit Analysis I ............................ 3
ELEC 125 Digital Electronics I .......................... 4
MATH 143 Math for Electronics I ......................... 3
TOTAL HOURS ........................................... 16

Second Semester — Spring
ELEC 140 Circuit Analysis II ............................. 3
ELEC 130 Electronic Principles I ......................... 3
ELEC 132 Basic for Engineering Technology ............ 3
MATH 144 Math for Electronics II ...................... 4
TOTAL HOURS ........................................... 17

Third Semester — Fall
ELEC 230 Electronic Principles II ....................... 3
ELEC 245 Microprocessors ............................... 3
DP 145 Assembly Language for Microcomputer .......... 3
PHYS 125 Technical Physics I ............................ 4
ENGL 121 Composition I ................................. 3
TOTAL HOURS ........................................... 16

Fourth Semester — Spring
CST 126 Computer Peripherals ......................... 3
CST 126 Microcomputer Operating Systems .............. 3
DP 174 Teleprocessing ................................ 3
ENGL 123 Technical Writing ............................ 3
Suggested Additional Courses
DRAF 126 Electronics Drafting ......................... 3
PHYS 126 Technical Physics II ........................... 5
ELEC 235 Electronic Principles III ...................... 3
• Teleprocessing II
• Advanced Mathematics
• Programming Courses

DATA PROCESSING

With all the talk about today's advances in technology, interest in the field of data processing is at an all-time high. According to the U.S. Bureau of Labor Statistics, the field of data processing is expected to grow faster than the average for all occupations through the 1980s.

JCCC offers a two-year program which provides training for entry-level computer programmers and related positions. JCCC's data processing equipment includes a Hewlett Packard 3000 system which provides access to an IBM-type main frame as well as in-house processing. IBM and DEC microcomputers also are available to students. Time-sharing, batch and remote batch processing are used. You will have the opportunity to code BASIC programs and other languages using an on-line editor. The program emphasizes practical experience and on-the-job training is recommended. If you already are in the field of data processing, you may wish to enroll in courses to upgrade and broaden your knowledge.

Associate of Technical Arts Degree

First Semester
DP 134 Programming Fundamentals ..................... 4
ACCT 121 Accounting I ................................ 3
ENGL 121 Composition I ................................ 3
MATH 116 Intermediate Algebra ......................... 3
TOTAL HOURS ........................................... 16

Although you may not remove magazines from the Library, you will need a library card in order to read back issues of magazines.
Second Semester

DP  148 COBOL I  4
DP  140 Editor  1
PHIL 132 Logic  3
ECON 230 Economics I  3

Data Processing Elective  3-4
Health or Phys. Dev. Elective  1
TOTAL HOURS  15-16

Third Semester

DP  248 COBOL II  4
DP  150 Assembler Language I  4
DP  262 Application Programming/
Applications  2-3
Data Processing Elective  3-4
Elective  3
TOTAL HOURS  16-18

Fourth Semester

DP  258 Operating Systems  3
DP  264 Application Programming/
Data Processing Topics  2-3
DP  242 Introduction to System Design
and Analysis  3
Data Processing Elective  3-4
Elective  3
TOTAL HOURS  14-16

The three Data Processing Elective courses
one to be selected from:
DP  137 Advanced Basic  4
DP  145 Assembler Language
for Microcomputers  4
DP  156 RPG II Beginning  4
DP  158 Fortran  4
DP  174 Teleprocessing  3
DP  210 Pascal  4
DP  215 OS/VS Job Control Language  3
DP  250 Assembler Language II  4
DP  253 CICS Command Level COBOL  4
DP  256 RPG II Advanced  4
DP  260 Data Base Management  4

Note: At least one of the three electives must be a
language.

DENTAL HYGIENE

The dental hygienist is the person in your dentist's
office who checks your teeth and gums for disease,
cleans your teeth and tells you what measures you
can take to prevent problems in the future. Usually
you need two years of college to qualify for such a
position.

JCCC's Dental Hygiene Program consists of two full
academic years and one summer session. You will
gain practical experience working in JCCC's Dental
Hygiene Clinic located on campus. This clinic is used
to develop students' efficiency in dental techniques,
under the supervision of a licensed dentist and
registered dental hygienists. The program is fully
accredited by the American Dental Association,
Commission on Dental Accreditation.

Enrollment in this program is limited. Deadline for
application for fall semester is Feb. 15. See the
Admissions Office for an application packet which
includes information about deadlines, admission and
options for meeting academic criteria.

Associate of Science Degree

Summer Semester

CR
CHEM 122 Principles of Chemistry*  5
ENGL 121 Composition I*  3
SOC 122 Sociology*  3
TOTAL HOURS  11

First Semester

DHYG 121 Clinical Dental Hygiene I  6
BIOL 146 General Head and Neck Anatomy  4
DHYG 125 Developmental Dentistry  3
PSVC 130 Introduction to Psychology  3
TOTAL HOURS  16

Second Semester

DHYG 140 Clinical Dental Hygiene II  5
DHYG 142 Dental Radiology  2
BIOL 235 Nutrition  3
BIOL 230 Microbiology  3
DHYG 146 Periodontics  1
DHYG 148 Dental Health Education  1
Health/Phys. Development Elective  1
TOTAL HOURS  16

Third Semester

BIOL 225 Human Physiology  4
 Humanities/Fine Arts Elective  3
Mathematics/Logic Elective  4
TOTAL HOURS  11

Fourth Semester

DHYG 221 Clinical Dental Hygiene III  7
DHYG 225 Pathology/Periodontology  3
DHYG 230 Dental Therapeutics  3
DHYG 235 Dental Materials  2
DHYG 240 Community Dental Health  2
TOTAL HOURS  17

Fifth Semester

DHYG 250 Clinical Dental Hygiene IV  7
SPD 120 Interpersonal Communication  3
TOTAL HOURS  10

TOTAL HOURS  70

*Required before admission to program

Note: Because of the curriculum requirements, it is
recommended that you complete the following
courses prior to the first semester of the program:
PSYC 130, BIOL 235, BIOL 230, Health/Physical
Development elective, Humanities/Fine Arts elective,
Mathematics/Logic elective, SPD 120.

The Dental Hygiene Clinic
is located in 228 SCI. The
Clinic is open to the

public.

34
**DRAFTING TECHNOLOGY**

Drafters are specialists who draw plans for buildings and machinery. A drafting technician may be involved in detailing production drawings and designs that are used in work with computers, photodrafting and quality control. Often drafting technicians hold positions in architectural and engineering firms.

In JCCC's two-year program you will use the latest computer design, computer-aided manufacturing (CAD/CAM), photo-mechanical, microfilm and surveying equipment. The projects you will be involved in and the laboratory procedures you will use are similar to those used in industry.

**Associate of Science Degree**

**First Semester – Fall**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRAF 132</td>
<td>Technical Drafting I</td>
<td>5</td>
</tr>
<tr>
<td>DRAF 135</td>
<td>Reprographics I</td>
<td>2</td>
</tr>
<tr>
<td>MATH 133</td>
<td>Technical Math I</td>
<td>3</td>
</tr>
<tr>
<td>DP 132</td>
<td>Basic for Engineering Technology</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 121</td>
<td>Composition I</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

**Second Semester – Spring**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRAF 133</td>
<td>Technical Drafting II</td>
<td>5</td>
</tr>
<tr>
<td>DRAF 230</td>
<td>Computer-Aided Drafting - 2D</td>
<td>3</td>
</tr>
<tr>
<td>MATH 134</td>
<td>Technical Math II</td>
<td>5</td>
</tr>
<tr>
<td>ENGL 123</td>
<td>Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

**Third Semester – Fall**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRAF 121</td>
<td>Technical Illustration</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 125</td>
<td>Technical Physics</td>
<td>3</td>
</tr>
<tr>
<td>MFTG 121</td>
<td>Manufacturing Processes and Testing</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Drafting Elective</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Health or Phys. Dev. Elective</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

**Fourth Semester – Spring**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 126</td>
<td>Technical Physics II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Humanities or Fine Arts Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Social Science or Economics Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Technical Elective</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

**Drafting Electives:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRAF 231</td>
<td>Computer-Aided Drafting - 3D</td>
<td>3</td>
</tr>
<tr>
<td>DRAF 180</td>
<td>Architectural/Structural Drafting (F)</td>
<td>4</td>
</tr>
<tr>
<td>DRAF 160</td>
<td>Process Piping (F)</td>
<td>3</td>
</tr>
<tr>
<td>DRAF 150</td>
<td>Electrical Drafting (S)</td>
<td>3</td>
</tr>
<tr>
<td>DRAF 127</td>
<td>Building Construction Estimating (S)</td>
<td>3</td>
</tr>
<tr>
<td>DRAF 225</td>
<td>Cartography &amp; Land Surveying (S)</td>
<td>3</td>
</tr>
<tr>
<td>DRAF 129</td>
<td>Interp. Architectural Drawings (F)</td>
<td>2</td>
</tr>
<tr>
<td>DRAF 131</td>
<td>Engineering Graphics I</td>
<td>3</td>
</tr>
<tr>
<td>DRAF 136</td>
<td>Reprographics II (S)</td>
<td>2</td>
</tr>
<tr>
<td>DRAF 145</td>
<td>Tool Design</td>
<td>3</td>
</tr>
<tr>
<td>DRAF 175</td>
<td>Electronics Drafting</td>
<td>3</td>
</tr>
<tr>
<td>DRAF 261</td>
<td>Graphic Communications I</td>
<td>2-7</td>
</tr>
<tr>
<td>DRAF 271</td>
<td>Drafting Cooperative Ed I</td>
<td>2-9</td>
</tr>
<tr>
<td>(F)</td>
<td>Offered fall semester only</td>
<td></td>
</tr>
<tr>
<td>(S)</td>
<td>Offered spring semester only</td>
<td></td>
</tr>
</tbody>
</table>

**ELECTRONICS ENGINEERING TECHNOLOGY**

This program focuses on a core of courses devoted to the fundamentals of electronics and related mathematics. Laboratory instruments comparable to those used by industry are available for diagnosing and repairing equipment. The "open lab" concept allows you access to the electronics lab during the week. The following suggested sequence of courses is designed to provide comprehensive, theoretical and practical information in electronics technology. The goal of the program is to train you for job entry in the electronics industry upon graduation. But you may also elect to enter the JCCC Biomedical Equipment Technology Program. The first-year requirements for this program and the Electronics Engineering Technology Program are identical. So you may choose to switch programs any time before the start of the second year. Another alternative is to attend a four-year college or university for two more years of study in electronic engineering technology and earn a B.S. in engineering technology.

**Associate of Science Degree**

**First Semester – Fall**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEC 120</td>
<td>Introduction to Electronics</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 122</td>
<td>Circuit Analysis I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 143</td>
<td>Math for Electronics I</td>
<td>5</td>
</tr>
<tr>
<td>ENGL 121</td>
<td>Composition I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Health or Phys. Dev. Elective</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

**Second Semester – Spring**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEC 125</td>
<td>Digital Electronics I</td>
<td>4</td>
</tr>
<tr>
<td>ELEC 130</td>
<td>Electronic Principles I</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 140</td>
<td>Circuit Analysis II</td>
<td>3</td>
</tr>
<tr>
<td>MATH 144</td>
<td>Math for Electronics II</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Health or Phys. Dev. Elective</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td></td>
<td><strong>17</strong></td>
</tr>
</tbody>
</table>

**Third Semester – Fall**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEC 225</td>
<td>Digital Electronics II</td>
<td>4</td>
</tr>
<tr>
<td>ELEC 230</td>
<td>Electronic Principles II</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 125</td>
<td>Technical Physics I</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 123</td>
<td>Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Programming Elective*</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

**Fourth Semester – Spring**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEC 235</td>
<td>Electronic Principles III</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 240</td>
<td>Electronic Comm. Systems</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 245</td>
<td>Microprocessors</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 126</td>
<td>Technical Physics II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Social Science or Economics Elective</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

*You must take one of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR 171</td>
<td>Programming for Engineering and Science</td>
<td>4</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DP 132</td>
<td>BASIC for Engineering Technology</td>
<td>3</td>
</tr>
</tbody>
</table>

**You may drop a class by completing a drop form in the Admissions Office.**
EMERGENCY MEDICAL TECHNOLOGY


Emergency Medical Technician Program

Upon completion of the 120-class hour Emergency Medical Technician Program, you will meet the prerequisite for taking the State Certification Examination for Emergency Medical Technicians. The program will teach skills in childbirth, CPR, bandaging, splinting and other emergency care procedures. You also will spend 10 hours of in-hospital observation in such areas as the recovery room, critical care units and the emergency, obstetric and psychiatric departments.

Any Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>CR</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMT 130</td>
<td>6</td>
<td>Emergency Medical Technician</td>
</tr>
</tbody>
</table>

Emergency Mobile Intensive Care Technician Program

The Emergency Mobile Intensive Care Technician (Paramedic) Program consists of one full year including the summer. The paramedic is qualified to administer medications, I.V. fluids and electrical shock therapy. The program, which is fully accredited by the University of Kansas Medical Center, includes clinical rotation in a hospital setting and field internship with an ambulance service. The program is highly accelerated and requires a certain amount of physical stamina and dexterity. Upon completion of the program, you will be eligible to take the certifying examination to become an EMICT.

First Semester – Spring

<table>
<thead>
<tr>
<th>Course</th>
<th>CR</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMIC 220</td>
<td>10</td>
<td>EMICT I</td>
</tr>
<tr>
<td>EMIC 225</td>
<td>10</td>
<td>EMICT II</td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td>20</td>
<td></td>
</tr>
</tbody>
</table>

Second Semester – Summer

<table>
<thead>
<tr>
<th>Course</th>
<th>CR</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMIC 230</td>
<td>12</td>
<td>EMICT III (Clinicals)</td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>

Third Semester – Fall

<table>
<thead>
<tr>
<th>Course</th>
<th>CR</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMIC 271</td>
<td>10</td>
<td>EMICT IV (Field Internship)</td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

JCCC's Energy Technology Program offers you the opportunity to gain a background in these areas. You will work in the classroom and the lab on developing an awareness of basic mathematical and scientific principles dealing with the control of temperature and the quality of air and the design, testing, installation and development of heating and cooling systems. Special emphasis will be on the conservation of energy through computer management. You also will explore alternative sources of energy such as wind, photovoltaic and solar.

You may choose to pursue either a one-year certificate program or a two-year associate of technical arts degree.

Associate of Technical Arts Degree

First Semester – Fall

<table>
<thead>
<tr>
<th>Course</th>
<th>CR</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENER 121</td>
<td>4</td>
<td>Basic Principles of HVAC</td>
</tr>
<tr>
<td>ENER 123</td>
<td>3</td>
<td>Electromechanical Systems</td>
</tr>
<tr>
<td>ENER 125</td>
<td>3</td>
<td>Energy Alternatives</td>
</tr>
<tr>
<td>MATH 133</td>
<td>3</td>
<td>Technical Math I</td>
</tr>
<tr>
<td>ENGL 121</td>
<td>3</td>
<td>Composition I</td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td>16</td>
<td></td>
</tr>
</tbody>
</table>

Second Semester – Spring

<table>
<thead>
<tr>
<th>Course</th>
<th>CR</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENER 124</td>
<td>2</td>
<td>Residential HVAC Estimating</td>
</tr>
<tr>
<td>ENER 126</td>
<td>3</td>
<td>Residential HVAC Systems</td>
</tr>
<tr>
<td>ENER 128</td>
<td>3</td>
<td>Instrumentation &amp; Control Devices</td>
</tr>
<tr>
<td>PHYS 125</td>
<td>3</td>
<td>Technical Physics I</td>
</tr>
<tr>
<td>DRAF 261</td>
<td>3</td>
<td>Graphic Communications I</td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td>11</td>
<td></td>
</tr>
</tbody>
</table>

Third Semester – Fall

<table>
<thead>
<tr>
<th>Course</th>
<th>CR</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENER 221</td>
<td>4</td>
<td>Commercial Systems- Air Conditioning</td>
</tr>
<tr>
<td>ENER 222</td>
<td>3</td>
<td>Advanced Control Systems</td>
</tr>
<tr>
<td>MFAB 232</td>
<td>3</td>
<td>Sheet Metal Pattern &amp; Development</td>
</tr>
<tr>
<td>DP 132</td>
<td>3</td>
<td>Basic for Engineering Technology</td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td>11</td>
<td></td>
</tr>
</tbody>
</table>

Fourth Semester – Spring

<table>
<thead>
<tr>
<th>Course</th>
<th>CR</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENER 223</td>
<td>4</td>
<td>Commercial Systems - Heating</td>
</tr>
<tr>
<td>ENER 224</td>
<td>3</td>
<td>Diagnosis and Service Procedures</td>
</tr>
<tr>
<td>ENER 226</td>
<td>3</td>
<td>Energy Management</td>
</tr>
<tr>
<td>MFAB 121</td>
<td>3</td>
<td>Introduction to Welding</td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td>11</td>
<td></td>
</tr>
</tbody>
</table>

The following courses may be used for Electives and Technical Electives:

<table>
<thead>
<tr>
<th>Course</th>
<th>CR</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENER 129</td>
<td></td>
<td>Domestic Solar Systems</td>
</tr>
<tr>
<td>ENER 130</td>
<td></td>
<td>Passive Solar Fundamentals</td>
</tr>
<tr>
<td>ENER 271</td>
<td>2</td>
<td>HVAC Cooperative Ed I</td>
</tr>
<tr>
<td>MFAB 140</td>
<td></td>
<td>Intro to Metal Fabrication</td>
</tr>
<tr>
<td>ELEC 120</td>
<td></td>
<td>Introduction to Electronics</td>
</tr>
</tbody>
</table>

Energy Technology Certificate Program

The certificate program is designed to prepare graduates for the basic job skills needed to service, residential and domestic heating and air conditioning equipment. If you elect the certificate option you will
learn the theory of operation as well as installation, servicing and repairing of gas furnaces, electric furnaces, heat pumps, rooftop air conditioners and steam boilers. This knowledge is reinforced by working on actual equipment in the laboratory. Completion of this program will allow you to seek employment as a maintenance and service technician in the heating-air conditioning trade.

**First Semester - Fall**
- ENER 121 Basic Principles of HVAC ............ 4
- ENER 123 Electromechanical Systems .......... 3
- ENER 125 Energy Alternatives ................. 3

**Second Semester - Spring**
- ENER 126 Residential HVAC Systems ........... 3
- ENER 128 Instrumentation & Control Devices ... 3
- MATH 261 Computer-Assisted Learning: BASIC .. 3
- ENGL 121 Composition I ...................... 3

The following 14 credit hours must be completed in addition to the above courses:
- ENER 221 Commercial Systems-Air Conditioning .......... 4
- ENER 223 Commercial Systems-Heating ............. 4
- ENER 224 Diagnosis and Service Procedures .... 3
- MATH 133 Technical Math I .................... 3

**TOTAL HOURS ..................... 36**

---

**Second Semester**
- ENGL 122 Composition II .................... 3
- PSYC 130 Introduction to Psychology .......... 3
- EQUS 140 Stable Management II .............. 4
- EQUS 132 Equine Health, Disease and Disorders 4
- EQUS 154 Equitation II ....................... 4

**TOTAL HOURS ..................... 18**

**Before you enroll in an elective, check with your counselor to see how it fits into your overall program plan.**

**Third Semester**
- MATH 120 Business Math ..................... 3
- HUM 200 Humanities Elective ................. 3
- EQUS 220 Stable Management III ............ 4
- EQUS *Equine Elective* ....................... 5

**TOTAL HOURS ..................... 16**

**Fourth Semester**
- BUS 140 Principles of Supervision ............ 3
- EQUS 257 Stable Management IV .............. 4
- EQUS *Equine Elective* ....................... 7
- EQUS 281 Advanced Equitation Project ....... 2

**TOTAL HOURS ..................... 16**

*Courses will include:
- Advanced Horse Training
- Teaching Techniques
- Advanced Equitation
- Breeding and Management
- Equine Merchandising

---

**EQUINE STUDIES**

Whether you plan to earn a living working with horses or you are interested in riding, training, judging or caring for horses, a background in the management of horses is essential.

JCCC's Equine Studies Program offers ways you can gain that background. You may apply this training by giving lessons in horsemanship, managing a small business, learning basic riding techniques or sharpening your competitive skills for entering horse shows.

The Associate of Technical Arts Degree Program is a two-year program focusing on the skills you need for a career as a stable owner or manager, breeder, trainer or manager of other programs and facilities in today's horse industry.

**Associate of Technical Arts Degree**

**First Semester**
- ENGL 121 Composition I .................... 3
- EQUS 120 Stable Management ................. 4
- EQUS 124 Equine Anatomy and Physiology .... 4
- EQUS 128 Equitation I ....................... 4

**TOTAL HOURS ..................... 15**

---

**FASHION MERCHANDISING**

While New York, Paris and Rome are considered the major fashion centers of the world, there still are many career opportunities locally for fashion merchandising graduates. In 1980 about 150,000 buyers worked for retail firms of all types in the United States. Other possible positions include retail department and/or store managers, visual merchandisers and sales associates.

JCCC's two-year program focuses on merchandising, marketing and management in five areas of operation: textile, apparel designs, manufacturing, media and promotion, and retailing. Field experience is an essential part of the program. You will be guided through behind-the-scenes operations in Kansas City stores to observe the network of sales-supporting activities as well as manufacturing operations. You also will have the option to participate in field experiences in Dallas, New York City or Europe.

Curriculum offerings at JCCC are comprehensive, with liberal arts and science, as well as vocational and technical programs.

**Associate of Technical Arts Degree**

**First Semester**
- FASH 271 Seminar: Human Relations ........ 2-3
- FASH 121 Fashion Fundamentals I .......... 3
- MKT 134 Creative Retail Selling .......... 3
- FASH 125 Fashion Display ................. 3
- ENGL 121 Composition I .................... 3

**TOTAL HOURS ..................... 14-15**
**Second Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASH 274</td>
<td>Seminar: Supervisory Development</td>
<td>2-3</td>
</tr>
<tr>
<td>FASH 132</td>
<td>Fashion Promotion</td>
<td>3</td>
</tr>
<tr>
<td>MKT 121</td>
<td>Retailing</td>
<td>3</td>
</tr>
<tr>
<td>MATH 120</td>
<td>Business Math</td>
<td>3</td>
</tr>
<tr>
<td>FASH 150</td>
<td>Textiles</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Health or Phys. Dev. Elective</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td></td>
<td>15-16</td>
</tr>
</tbody>
</table>

**Third Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASH 276</td>
<td>Seminar: Career Options</td>
<td>2-3</td>
</tr>
<tr>
<td>FASH 231</td>
<td>Fashion Fundamentals II</td>
<td>3</td>
</tr>
<tr>
<td>BUS 230</td>
<td>Marketing</td>
<td>3</td>
</tr>
<tr>
<td>FASH 220</td>
<td>Fashion in Society</td>
<td>3</td>
</tr>
<tr>
<td>ECON 130</td>
<td>Basic Economics</td>
<td>3</td>
</tr>
<tr>
<td>CLC 150</td>
<td>Job Search Skills</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td></td>
<td>15-16</td>
</tr>
</tbody>
</table>

**Fourth Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASH 279</td>
<td>Seminar: Marketing Research</td>
<td>2-3</td>
</tr>
<tr>
<td>FASH 242</td>
<td>Merchandise Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>FASH 130</td>
<td>Fashion Illustration I</td>
<td>3</td>
</tr>
<tr>
<td>or HUM 122</td>
<td>Introduction to Humanities</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Electives</td>
<td>9</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td></td>
<td>17-18</td>
</tr>
</tbody>
</table>

**Suggested Electives:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASH 224</td>
<td>History of Dress</td>
<td>3</td>
</tr>
<tr>
<td>FASH 230</td>
<td>Fashion Illustration II</td>
<td>3</td>
</tr>
<tr>
<td>ITMD 121</td>
<td>Interior Design I</td>
<td>3</td>
</tr>
<tr>
<td>ITMD 122</td>
<td>Interior Design II</td>
<td>3</td>
</tr>
<tr>
<td>BUS 123</td>
<td>Personal Finance</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 121</td>
<td>Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ART 151</td>
<td>Fiber Design I</td>
<td>3</td>
</tr>
<tr>
<td>BUS 243</td>
<td>Personnel Management</td>
<td>3</td>
</tr>
<tr>
<td>BUS 122</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>SOC 128</td>
<td>Sociology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 130</td>
<td>Intro to Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

**Electives**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRE</td>
<td></td>
<td>Any course in this section.</td>
</tr>
<tr>
<td>ADMJ 124</td>
<td>Criminal Justice System</td>
<td>3</td>
</tr>
<tr>
<td>ADMJ 140</td>
<td>Constitutional Case Law</td>
<td>3</td>
</tr>
<tr>
<td>BUS 263</td>
<td>Business Law II</td>
<td>3</td>
</tr>
<tr>
<td>SPD 120</td>
<td>Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>ECON 230</td>
<td>Economics I</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 121</td>
<td>Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 123</td>
<td>Composition I</td>
<td>3</td>
</tr>
<tr>
<td>DP 128</td>
<td>Fundamentals of BASIC</td>
<td>3</td>
</tr>
<tr>
<td>DRAF 129</td>
<td>Interpreting Arch. Drawings</td>
<td>2</td>
</tr>
<tr>
<td>BUS 143</td>
<td>Personnel Management</td>
<td>3</td>
</tr>
</tbody>
</table>

---

**FIRE PROTECTION ADMINISTRATION**

This program focuses on the skills necessary to manage and administrate fire protection services. You will study personnel management skills, fire service organizational requirements and other skills necessary to be an administrator of a fire protection service.

**Associate of Science Degree**

**First Semester – Fall**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 121</td>
<td>Composition I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 160</td>
<td>Algebra</td>
<td>5</td>
</tr>
<tr>
<td>FIRE 150</td>
<td>Introduction to Fire Science</td>
<td>3</td>
</tr>
<tr>
<td>POLS 126</td>
<td>State and Local Government</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Humanities or Fine Arts Elective</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td></td>
<td>17</td>
</tr>
</tbody>
</table>

**Second Semester – Spring**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 122</td>
<td>Principles of Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>BUS 261</td>
<td>Business Law I</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 130</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>FIRE 162</td>
<td>Fire Tactics &amp; Strategy</td>
<td>3</td>
</tr>
<tr>
<td>PD 240</td>
<td>Concepts of Physical Development</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td></td>
<td>17</td>
</tr>
</tbody>
</table>

**Third Semester – Fall**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 181</td>
<td>Statistics</td>
<td>3</td>
</tr>
<tr>
<td>DP 124</td>
<td>Business Data Processing</td>
<td>3</td>
</tr>
<tr>
<td>BUS 141</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>FIRE 220</td>
<td>Municipal Fire Administration</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Elective</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td></td>
<td>15</td>
</tr>
</tbody>
</table>

**Fourth Semester – Spring**

<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>BUS 140</td>
<td>Principles of Supervision</td>
<td>3</td>
</tr>
<tr>
<td>BUS 120</td>
<td>Management Attitudes &amp; Motivation</td>
<td>3</td>
</tr>
<tr>
<td>FIRE 222</td>
<td>Fire Science Law</td>
<td>3</td>
</tr>
<tr>
<td>FIRE 224</td>
<td>Emergency Management Operations</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td></td>
<td>15</td>
</tr>
</tbody>
</table>

JCCC strives to provide education for every member of the community regardless of ability, background or age.

Approximately 15 percent of JCCC's instructors have doctorates and nine out of ten have at least one master's degree.

**FIRE PROTECTION / PUBLIC SAFETY**

A background in fire protection/public safety is necessary to be a firefighter. But it also is important if you're looking into becoming a fire service administrator, an architect, insurance adjustor or entering another related field. Job openings usually are more plentiful in larger cities.

JCCC's program offers you two options. You may pursue a 30 credit-hour certificate program in fire prevention, fire protection or fire service administration. You may earn an associate of arts degree by combining two 30 credit-hour certificate programs or by completing one certificate program and an additional 30 credit hours of relevant course work.
## Associate of Science Degree

### Fire Science
- FIRE 121 Fundamentals of Fire Prevention .......... 3
- FIRE 125 Building Construction for Fire Protection .......... 3
- FIRE 127 Fire Photography .......... 3
- FIRE 130 Fire Investigation .......... 3
- FIRE 132 Arson Investigation .......... 3
- FIRE 137 Extinguishing, Detection and Alarm Systems .......... 3
  Electives .......... 9
  TOTAL HOURS .......... 30

### Administration
- BUS 141 Principles of Management .......... 3
- BUS 140 Principles of Supervision .......... 3
- BUS 243 Personnel Management .......... 3
- FIRE 220 Municipal Fire Administration .......... 3
- FIRE 222 Fire Science Law .......... 3
- FIRE 224 Emergency Management Operations .......... 3
  TOTAL HOURS .......... 30

### Protection
- FIRE 150 Introduction to the Fire Science .......... 3
- FIRE 155 Fire Hydraulics .......... 3
- FIRE 157 Fire Hydraulics Lab .......... 1
- FIRE 160 Fire Apparatus and Equipment .......... 3
- FIRE 162 Fire Tactics and Strategy .......... 3
- FIRE 165 Rescue Practices .......... 3
- FIRE 167 Rescue Practice Lab .......... 1
- FIRE 170 Sprinklers and Standpipe Systems .......... 3
- FIRE 172 Hazardous Materials .......... 3
  Electives .......... 7
  TOTAL HOURS .......... 30

### Technical Electives
- FIRE 175 Essentials of Fire Fighting .......... 4
- EMT 130 Emergency Medical Technician .......... 5
- CHEM 122 Principles of Chemistry .......... 5
- MATH 133 Technical Math I .......... 5
- ADMJ 124 Study of Criminal Justice System .......... 3
- FIRE 224 Emergency Management Operations .......... 3
- FIRE 291 Independent Study: Fire Science .......... 1-3

### Non-technical Electives
- SPD 120 Interpersonal Communication .......... 3
- PSYC 130 Introduction to Psychology .......... 3
- BUS 120 Management Attitudes & Motivation .......... 3
- BUS 140 Principles of Supervision .......... 3
- MATH 261 Computer-Assisted Instruction: BASIC .......... 3

## HOME ECONOMICS

### Life and Home Management

#### Family Economics

Today’s society is constantly changing. One of the places these changes are felt strongly is in the home. JCCC offers two programs focusing on how men and women can run their homes effectively.

#### LIFE AND HOME MANAGEMENT PROGRAM

The Life and Home Management Program concentrates on consumerism, nutrition, clothing and housing. You may earn an associate of arts degree in four semesters or a certificate after completing 30 credit hours.

### Associate of Arts Degree

#### First Semester
- HMEC 142 Home Management .......... 3
- ITMD 121 Interior Design I .......... 3
- HMEC 131 Family Communications .......... 3
  Electives .......... 6
  TOTAL HOURS .......... 15

#### Second Semester
- BUS 123 Personal Finance .......... 3
- FASH 220 Fashion in Society .......... 3
- ITMD 232 Housing and Equipment .......... 3
  Electives .......... 6
  TOTAL HOURS .......... 15

#### Third Semester
- FASH 150 Textiles .......... 3
- HMEC 151 Nutrition/Meal Planning .......... 3
  Electives .......... 9
  TOTAL HOURS .......... 15

#### Fourth Semester
- FASH 242 Merchandise Evaluation .......... 3
- ITMD 132 Interior Products .......... 3
  Electives .......... 9
  TOTAL HOURS .......... 15

### Certificate Program

30 hours in Life and Home Management

#### First Semester
- HMEC 142 Home Management .......... 3
- HMEC 131 Family Communications .......... 3
- BUS 123 Personal Finance .......... 3
- FASH 220 Fashion in Society .......... 3
- ITMD 121 Interior Design I .......... 3
  TOTAL HOURS .......... 15

#### Second Semester
- FASH 150 Textiles .......... 3
- ITMD 232 Housing and Equipment .......... 3
- HMEC 151 Nutrition/Meal Planning .......... 3
- FASH 242 Merchandise Evaluation .......... 3
- ITMD 132 Interior Products .......... 3
  TOTAL HOURS .......... 15

Most of JCCC's students are enrolled in liberal arts and science transfer programs.

You may check out books in the Library for three weeks and renew them once for an additional three weeks.

39
FAMILY ECONOMICS PROGRAM
The Family Economics Program focuses on the management of personal and family resources. Classes are offered in personal finance, savings and investment, records management, merchandise evaluation and other related areas. You may earn an associate of arts degree in four semesters or a certificate after completing 30 credit hours.

**Associate of Arts Degree***
30 hours in Home Economics and 30 hours in General Education courses.

**First Semester**
- HMEC 142 Home Management .......... 3
- BUS 123 Personal Finance .......... 3
- HMEC 131 Family Communications .......... 6
- Electives .......... 6
- TOTAL HOURS .......... 15

**Second Semester**
- ITMD 121 Interior Design I .......... 3
- BUS 125 Savings and Investment .......... 3
- Electives .......... 6
- TOTAL HOURS .......... 12

**Third Semester**
- ITMD 232 Housing and Equipment .......... 3
- SEC 136 Records Management .......... 3
- Electives .......... 9
- TOTAL HOURS .......... 15

**Fourth Semester**
- FASH 220 Fashion in Society .......... 3
- FASH 242 Merchandise Evaluation .......... 3
- HMEC 151 Nutrition & Meal Planning .......... 3
- Electives .......... 6
- TOTAL HOURS .......... 15

**Certificate Program:**
30 hours Family Economics

**First Semester**
- HMEC 142 Home Management .......... 3
- BUS 123 Personal Finance .......... 3
- HMEC 131 Family Communications .......... 3
- ITMD 121 Interior Design I .......... 3
- SEC 136 Records Management .......... 3
- TOTAL HOURS .......... 15

**Second Semester**
- BUS 125 Savings and Investment .......... 3
- ITMD 232 Housing and Equipment .......... 3
- FASH 220 Fashion in Society .......... 3
- FASH 242 Merchandise Evaluation .......... 3
- HMEC 151 Nutrition & Meal Planning .......... 3
- TOTAL HOURS .......... 15

*Required courses for this program will change effective fall 1985. If you are enrolling in this program, check with a counselor concerning degree requirements after August 1985.

HOSPITALITY MANAGEMENT
A manager of a hotel or motel must have a broad base of experience in everything from supervising employees to purchasing and preparing food. In 1980 there were 84,000 persons employed as hotel/motel managers and the job outlook appears better than average.

You may choose from two options in the Hospitality Management career program at JCCC: a one-year certificate or a two-year Associate of Technical Arts Degree. The two-year program emphasizes management skills while both programs focus on the principles of restaurant and hotel management including food purchasing and preparation, planning menus and service for all types of food operations, beverage control, sanitation laws, supervision of hotel and restaurant employees, and office procedures and techniques used in lodging establishments.

**Associate of Technical Arts Degree**

**First Semester**
- HMG 121 Hospitality Management Fundamentals .......... 3
- HMG 123 Basic Food Preparation .......... 3
- ENGL 121 Composition I .......... 3
- HMG 271 Seminar in Purchasing .......... 2-3
- MATH 120 Business Math .......... 3
- TOTAL HOURS .......... 14-15

**Second Semester**
- HMG 126 Food Management .......... 4
- HMG 128 Supervisory Management .......... 3
- HMG 274 Seminar in Accounting .......... 2-3
- PSYC 121 Applied Psychology .......... 3
- Elective .......... 3
- TOTAL HOURS .......... 15-16

**Summer Semester**

**Third Semester**
- HMG 277 Seminar in Menu Planning and Sales Promotion .......... 2-3
- HMG 219 Hotel-Motel Operations .......... 3
- HMG 221 Design Techniques .......... 3
- SPD 240 Interpersonal Communication .......... 3
- HMEC 151 Nutrition .......... 3
- LC 150 Job Search Skills .......... 1
- TOTAL HOURS .......... 13-14

**Fourth Semester**
- HMG 230 Intermediate Food Preparation .......... 3
- HMG 228 Advanced Hosp. Management .......... 3
- HMG 279 Beverage Control .......... 2-3
- HMG 226 Food Specialties: Garde Manger .......... 3
- Health or Phys. Dev. Elective .......... 1
- Humanities Elective .......... 3
- TOTAL HOURS .......... 15-16

*For the last four years, one-third of all the students involved in JCCC career programs were there to upgrade skills for advancement on their current jobs.*
**Certificate Program:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMGT 121</td>
<td>Hospitality Management</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 123</td>
<td>Basic Food Preparation</td>
<td>3</td>
</tr>
<tr>
<td>MATH 120</td>
<td>Business Math</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 271</td>
<td>Seminar in Purchasing</td>
<td>2-3</td>
</tr>
<tr>
<td>HMGT 126</td>
<td>Food Management</td>
<td>4</td>
</tr>
<tr>
<td>HMGT 129</td>
<td>Supervisory Management</td>
<td>3</td>
</tr>
<tr>
<td>HMGT 274</td>
<td>Seminar in Accounting</td>
<td>2-3</td>
</tr>
<tr>
<td>HMGT 275</td>
<td>Seminar: Hosp. Management</td>
<td>2-3</td>
</tr>
<tr>
<td></td>
<td>Internship</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL HOURS</strong></td>
<td><strong>30-31</strong></td>
</tr>
</tbody>
</table>

**Third Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>IWP 132</td>
<td>Word Processing Applications II</td>
<td>3</td>
</tr>
<tr>
<td>IWP 241</td>
<td>Directed Experience I*</td>
<td>1</td>
</tr>
<tr>
<td>SEC 274</td>
<td>Human Relations Seminar</td>
<td>3</td>
</tr>
<tr>
<td>DP 124</td>
<td>Business Data Processing</td>
<td>3</td>
</tr>
<tr>
<td>SEC 231</td>
<td>Physical Education/Health Elective</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL HOURS</strong></td>
<td><strong>3</strong></td>
</tr>
</tbody>
</table>

**Fourth Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>IWP 250</td>
<td>Directed Experience II*</td>
<td>1</td>
</tr>
<tr>
<td>SEC 271</td>
<td>Management Seminar</td>
<td>2-3</td>
</tr>
<tr>
<td>SEC 136</td>
<td>Records Management</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Electives</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL HOURS</strong></td>
<td><strong>17</strong></td>
</tr>
</tbody>
</table>

*Courses being developed*

**Associate of Technical Arts Degree**

**Information Processing Management**

<table>
<thead>
<tr>
<th>First Semester</th>
<th></th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 121</td>
<td>Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ECON 130</td>
<td>Basic Economics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 230</td>
<td>Economics I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 111</td>
<td>Introduction to Algebra</td>
<td>3</td>
</tr>
<tr>
<td>IWP 131</td>
<td>Word Processing Concepts</td>
<td>3</td>
</tr>
<tr>
<td>SEC 101</td>
<td>Keyboarding</td>
<td>1</td>
</tr>
<tr>
<td>BUS 121</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>IWP 211</td>
<td>Information Processing Management</td>
<td>3</td>
</tr>
<tr>
<td>DP 124</td>
<td>Business Data Processing</td>
<td>3</td>
</tr>
<tr>
<td>BUS 150</td>
<td>Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>BUS 140</td>
<td>Principles of Supervision</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Humanities/Fine Arts Elective</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td></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>IWP 232</td>
<td>Information Processing Management Applications</td>
<td>3</td>
</tr>
<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></td>
<td>Physical Education/Health Elective</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>General Electives</td>
<td>7</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td></td>
<td><strong>17</strong></td>
</tr>
</tbody>
</table>

**Fourth Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 243</td>
<td>Personnel Management</td>
<td>3</td>
</tr>
<tr>
<td>DP 140</td>
<td>Editor</td>
<td>3</td>
</tr>
<tr>
<td>IWP 270</td>
<td>Internship IP Management*</td>
<td>1-2</td>
</tr>
<tr>
<td></td>
<td>General Electives</td>
<td>8-9</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

*Courses being developed*

All of JCCC’s career programs are planned and evaluated with the help of advisory committees made up of professionals in each career field.

You will graduate “with honors” if you earn an overall grade point average of 3.5 or more in all credit courses.
INTERIOR MERCHANDISING

Color, function, design, arrangement of equipment, space ... these are among the many factors that must be considered when planning a home or work environment that "works."

Statistics indicate that in 1980, approximately 150,000 buyers worked for retail firms of all types in the United States. Interior merchandising graduates also can be found in a number of other areas including retail sales.

In this career program, you will concentrate on developing the technical, creative and merchandising skills you need as a professional in the interior products industry. The program offers a careful blend of formal course work and practical on-the-job training concentrating on residential and commercial home furnishings in retail, wholesale and manufacturing areas. You will take courses in business and art as well as interior design. You also will be required to complete a course in job search skills towards the end of the program.

**Associate of Technical Arts Degree**

<table>
<thead>
<tr>
<th>First Semester</th>
<th>CR</th>
<th>HUM 144 Introduction to Art History</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITMD 121 Interior Design I</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DRAF 261 Graphic Communications I</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 120 Business Math</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FASH 150 Textiles</td>
<td>3</td>
<td>Elective</td>
<td></td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td>17</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
<th></th>
<th>ITMD 122 Interior Design II</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 140 Principles of Supervision</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITMD 132 Interior Products</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MKT 134 Creative Retail Selling</td>
<td>3</td>
<td>Humanities and Art Elective</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td>16</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Semester</th>
<th></th>
<th>ITMD 223 Interior Design III*</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ITMD 272 Seminar: Practices &amp; Procedures</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITMD 282 Practicum I: Design Time on House*</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITMD 231 History of Furniture Design</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECON 230 Economics I</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITMD 232 Housing &amp; Equipment</td>
<td>3</td>
<td>Elective</td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
<td>Elective</td>
<td></td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td>18</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fourth Semester</th>
<th></th>
<th>ITMD 224 Interior Design IV*</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ITMD 274 Seminar: Budgeting &amp; Estimating</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITMD 284 Practicum II: Design Time on House*</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LC 150 Job Search Skills</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITMD 13 History of Ornamentation &amp; Applied Design*</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENGL 121 Composition I</td>
<td>3</td>
<td>Elective</td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
<td>Health or Phys. Dev. Elective</td>
<td>1</td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td>17</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Course being developed

**INTERPRETER TRAINING**

Interpreters for the hearing impaired are found in a variety of special situations including the classroom, doctor's office, court room and business office. Interpreters, therefore, need to be flexible and outgoing and should feel comfortable in front of a group. The employment outlook for interpreters looks promising as more social agencies, school systems, medical services and industries are providing interpreter services for the hearing impaired.

JCCC's two-year program concentrates on developing skills in interpreting. It focuses on a familiarity with American Sign Language, fingerspelling, interpreting and non-verbal communication. During the last semester you will participate in a practicum class in which you will interpret under supervision in a variety of situations at JCCC and in the community.

**Suggested Sequence of Courses**

<table>
<thead>
<tr>
<th>First Semester</th>
<th></th>
<th>INTR 120 Non-Verbal Communication as a Sign Language Base</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTR 125 Elementary ASL</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INTR 130 Orientation to Interpreting</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INTR 135 ASL Theory</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td>17</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
<th></th>
<th>INTR 132 Intermediate ASL</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTR 140 Advanced ASL I</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INTR 142 Fingerspelling I</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INTR 145 Deaf Culture</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td>18</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Semester</th>
<th></th>
<th>INTR 230 Advanced ASL II</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTR 242 Fingerspelling II</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INTR 250 Interpreting I</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LC 106 Vocabulary Development</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td>11</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fourth Semester</th>
<th></th>
<th>INTR 240 Advanced ASL III</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTR 255 Interpreting II</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INTR 225 Interpreters and Physical &quot;Burn Out&quot;</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INTR 281 Practicum</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electives</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td>14</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Required courses for this program will be changed effective Fall 1985. If you are enrolling in this program, check with a counselor concerning degree requirements after August 1985.
### Manufacturing Technology

Manufacturing technology encompasses a variety of career fields including robot service maintenance, metal machining and fabrication equipment service and sales, electronics service and drafting.

The curriculum of the two-year program at JCCC includes courses in metal fabrication, drafting and electronics.

#### Associate of Science Degree

<table>
<thead>
<tr>
<th>First Semester - Fall</th>
<th>CR</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>MFAE 140 Introduction to Metal Fabrication</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MFTG 121 Manufacturing Processes and Testing</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MATH 143 Math for Electronics I</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>DRAF 132 Technical Drafting I</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td><strong>16</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester - Spring</th>
<th>CR</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>MFAE 121 Introduction to Welding</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MFTG 132 Metallurgy</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>ELEC 120 Introduction to Electronics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>DRAF 230 Computer-Aided Drafting 2-D</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>DP 131 BASIC for Engineering Technology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MATH 144 Math for Electronics II</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td><strong>17</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Semester - Fall</th>
<th>CR</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>MFAE 130 MIG and TIG I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MFTG 126 Machine Tool Processes I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ELEC 121 Circuit Analysis I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ENGL 121 Composition I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Health &amp; Phys. Dev. elective</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Humanities-Fine Arts elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td><strong>16</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fourth Semester - Spring</th>
<th>CR</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>MFTG 122 Robotics</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>MFTG 124 Robotic Applications</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>ENGL 123 Technical Writing</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PHYS 125 Technical Physics I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Technical elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Social Science or Economics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td><strong>16</strong></td>
<td></td>
</tr>
</tbody>
</table>

#### Electives and Technical Electives:

| MFTG 128 Machine Tool Processes II | 3 |  |
| MFTG 135 Testing and Inspection | 3 |  |
| MFAE 125 Adv. Gas & Arc Welding | 3 |  |
| MFAE 230 MIG and TIG II | 3 |  |
| MFAE 232 Sheet Metal Pattern and Develop | 3 |  |
| DRAF 133 Technical Drafting II | 5 |  |
| DRAF 231 Computer-Aided Drafting 3-D | 3 |  |

### Marketing and Management

A background in marketing and management is essential if your career goal is to hold a position in sales, marketing or advertising. The field is large and competitive — approximately 4,200,000 people worked in these three fields in the United States in 1980 typically as advertising professionals, insurance agents/brokers, sales workers or sales managers. Because of the competitiveness of the field, additional education at a four-year university or college may provide you with the extra edge you need to enter the field.

JCCC's career program focuses on the skills required in retail, wholesale or manufacturing sales; marketing research analysis; store management; and buying and service sales. Required courses are heavy in the area of sales, advertising, retailing and management. You also will be expected to participate in an on-the-job training program in an approved business, an experience that will give you the opportunity to check the theoretical training you gain in class against the everyday problems found in a practical business operation.

#### Associate of Technical Arts Degree

<table>
<thead>
<tr>
<th>First Semester</th>
<th>CR</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 111 Small Business Accounting</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>or ACCT 121 Accounting I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MKT 133 Salesmanship</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>or MKT 134 Creative Retail Selling</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ENGL 121 Composition I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MKT 271 Marketing &amp; Management Seminar: Organization &amp; Operation</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Communications Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td><strong>15</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>CR</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 140 Principles of Supervision</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MATH 120 Business Math</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MKT 221 Sales Management</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Health or Phys. Dev. elective</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Business elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MKT 272 Marketing &amp; Management Seminar: Management Decisions</td>
<td>2-3</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td><strong>15-16</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Semester</th>
<th>CR</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 230 Marketing</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BUS 261 Business Law</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PHIL 143 Ethics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BUS 243 Personnel Management</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MKT 274 Marketing &amp; Management Seminar: Management</td>
<td>2-3</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td><strong>14-15</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fourth Semester</th>
<th>CR</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 141 Principles of Management</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ECON 130 Basic Economics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
MEDICAL LABORATORY TECHNICIAN

The medical laboratory technician is a valuable member of the health care team. The MLT works under the direct supervision of a medical technologist in a variety of settings. During the academic year, you will concentrate on a foundation in biological, physical, and social sciences and technical skills. During the clinical year, you will apply this foundation to the performance of clinical laboratory procedures and to working relationships with laboratory staff.

The Medical Laboratory Technician Program is a cooperative program between JCCC and Penn Valley Community College. You must be formally accepted by both JCCC and Penn Valley Community College to be admitted into the program. The supportive courses are held at JCCC and essential courses at Penn Valley. Register for all courses at JCCC. See a JCCC counselor for additional information.

Associate of Science Degree

First Semester
- BIOL 144 Human Anatomy and Physiology 5
- CHEM 122 Principles of Chemistry 5
- ENGL 121 Composition I 3
- Missouri Constitution* 3
- KMLT 100 Intro. to Clinical Laboratory 1

TOTAL HOURS 17

Second Semester
- BIOL 230 Microbiology 3
- BIOL 231 Microbiology Lab 2
- CHEM 140 Principles of Organic Chemistry 5
- MATH 116 Intermediate Algebra 3
- KMLT 101 Fund. Techniques & Procedures 3

TOTAL HOURS 16

Summer
- KMLT 106 Diagnostic Microbiology 3
- KMLT 206 Clinical Practicum I 5

TOTAL HOURS 8

Third Semester
- KMLT 102 Clinical Chemistry 4
- KMLT 103 Hematology 3
- KMLT 203 Clinical Practicum II 10

TOTAL HOURS 17

Fourth Semester
- KMLT 104 Departmental Seminar 3
- KMLT 105 Applied Immunology 3
- KMLT 205 Clinical Practicum III 10
- SPD 120 Interpersonal Communication 3

TOTAL HOURS 19

*All graduates from Penn Valley must meet the Missouri Constitution requirement. See your JCCC counselor about courses.

MENTAL HEALTH TECHNOLOGY

The mental health technician is a skilled member of the health care team. He or she is concerned with the mental well being of people of all ages in such settings as psychiatric units, child abuse centers, substance abuse clinics, alcohol rehabilitation units, wife abuse clinics and halfway houses. Kansas regulations require that anyone giving therapy to patients in a state-approved mental institution be certified as a mental health technician.

JCCC's program is designed to meet the requirements for certification as specified by the Kansas State Board of Nursing. The nine-month program is a combination of 480 clock hours devoted to theory and 480 clock hours devoted to clinical or laboratory work. This is slightly in excess of the state-required minimum, but it is built as much as possible around courses JCCC currently offers. When you successfully complete the program, you will be awarded a certificate and you will be eligible to take the state licensure exam for mental health technicians.

First Semester
- PSYC 130 Introduction to Psychology 3
- BIOL 144 Human Anatomy/Physiology 5
- MHT 125 Mental Health Technology I 4
- Elective 3

TOTAL HOURS 15

Second Semester
- PSYC 215 Child Development 3
- SOC 125 Social Problems 3
- MHT 130 Mental Health Technology II 6
- Elective 3

TOTAL HOURS 15

Third Semester
- SOC 131 Marriage and the Family 3
- MHT 225 Mental Health Technology III 6
- Electives 6

TOTAL HOURS 15

Fourth Semester
- MHT 230 Mental Health Technology IV 7
- Electives 8

TOTAL HOURS 15
About 480 clock hours are devoted to theory and 460 clock hours to clinic or laboratory. This is slightly in excess of the state-required minimum, but is built as much as possible around courses JCCC currently offers.

**METAL FABRICATION**

A background in metal fabrication is the beginning of a career as a welder, welder's helper, layout person, machinist or a professional in another related area.

JCCC's Metal Fabrication Program offers you the opportunity to begin developing these skills. In three well-equipped laboratories, you may get practical experience in oxy-acetylene welding and cutting, stick-welding (SMAW), MIG arc (GTAW), metal fabrication, wire welding (GMAW-FCAW), machine shop, manufacturing processes and testing. This is a one-year certificate program. After completing this program, you may wish to pursue an associate of science degree through JCCC's Manufacturing Technology Program.

**Associate of Science Degree**

<table>
<thead>
<tr>
<th>First Semester — Fall</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFAG 121 Introduction to Welding</td>
<td>3</td>
</tr>
<tr>
<td>MFBG 130 MIG and TIG I</td>
<td>3</td>
</tr>
<tr>
<td>MFTG 126 Machine Tool Processes I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 133 Technical Math I</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td><strong>11</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester — Spring</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFAB 125 Advanced Gas and Arc Welding</td>
<td>3</td>
</tr>
<tr>
<td>MFAB 230 MIG and TIG II</td>
<td>3</td>
</tr>
<tr>
<td>MFBG 128 Machine Tool Processes II</td>
<td>3</td>
</tr>
<tr>
<td>MFTG 132 Metallurgy</td>
<td>1</td>
</tr>
<tr>
<td>ENGL 121 Composition I</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td><strong>13</strong></td>
</tr>
</tbody>
</table>

The following 8 credit hours must be completed in addition to the above course:

<table>
<thead>
<tr>
<th>Course</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFTG 121 Manufacturing Processes &amp; Testing</td>
<td>3</td>
</tr>
<tr>
<td>MFAB 140 Introduction to Metal Fabrication</td>
<td>3</td>
</tr>
<tr>
<td>DRAF 125 Interp. of Welding Drawings</td>
<td>2</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td><strong>8</strong></td>
</tr>
</tbody>
</table>

JCCC's two-year career program is accredited by the Kansas State Board of Nursing and the National League for Nursing. If you wish to enter the Nursing program, you must meet the academic standards as defined in the admissions criteria. If you have not completed high school, you must have an acceptable GED score. The program is difficult and requires long hours of class, laboratory and independent study. The ability to manage studies and the flexibility to meet the demands of the program are important considerations. When you complete the program you will be eligible to take the licensing exam to become a registered nurse. The deadline for application is Feb. 15.

**Associate of Science Degree**

<table>
<thead>
<tr>
<th>Summer Semester</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 122 Principles of Chemistry**</td>
<td><strong>5</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>First Semester</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 140 Anatomy</td>
<td>4</td>
</tr>
<tr>
<td>PSYC 130 Intro. to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>NURS 121 Concepts of Health (F)</td>
<td>8</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 225 Physiology</td>
<td>4</td>
</tr>
<tr>
<td>PSYC 215 Child Development</td>
<td>3</td>
</tr>
<tr>
<td>NURS 122 Adaptation to Change (S)</td>
<td>8</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Semester</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 221 Short-Term Health Problems (F)</td>
<td>9</td>
</tr>
<tr>
<td>Social Science Elective*</td>
<td>3</td>
</tr>
<tr>
<td>ENG 121 Composition I</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fourth Semester</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 222 Long-Term Health Problems (S)</td>
<td>9</td>
</tr>
<tr>
<td>Humanities Elective*</td>
<td>3</td>
</tr>
<tr>
<td>Communications Elective*</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

*You may select specific courses to meet these requirements from this list:
SOCIAL SCIENCES: Sociology, Social Problems
COMMUNICATIONS and HUMANITIES: Courses should be selected in consultation with the program coordinator or a counselor.

**It is recommended you take Principles of Chemistry in the summer prior to the program to satisfy prerequisites. Microbiology is optional but recommended for the program.

(F) Offered in fall semester only.
(S) Offered in spring semester only.

**ACT scores are required only if you are entering Dental Hygiene or Nursing.**

---

**NURSING**

Nurses are in demand throughout the country in a variety of health-care settings. Successful nurses are expected to be knowledgeable in the humanities as well as the biological, physical and behavioral sciences and are able to put these principles to practice.

---

If you wish to join a club — or form one of your own — contact the Student Activities Office.
OCCUPATIONAL THERAPY ASSISTANT

The occupational therapy assistant (OTA) assists the registered occupational therapist. The OTA helps persons with physical, emotional or developmental limitations achieve more functional lives. He or she also works in consultation with, or under the supervision of, an occupational therapist and may supervise assistants with less experience and activity personnel. According to the U.S. Bureau of Labor Statistics, occupational therapy is one of the top fastest growing health professions. Employment in the field is expected to grow faster than the average because public interest in the rehabilitation of disabled persons is high and established occupational therapy programs are highly successful.

JCCC's Occupational Therapy Program, a two-year program leading to the Associate of Science Degree, is offered in cooperation with Penn Valley Community College. Upon graduation, you will be qualified to sit for the certification examination and, after successfully completing the exam, you will be granted a certificate and identification number. While this is not designed to be a transfer program, you may choose to continue at a four-year college or university and become a registered occupational therapist. Check with a JCCC counselor about the transferability of courses.

**Associate of Science Degree**

**First Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>KOT 100</td>
<td>2</td>
</tr>
<tr>
<td>MRT 110</td>
<td>2</td>
</tr>
<tr>
<td>BOL 120</td>
<td>4</td>
</tr>
<tr>
<td>ENGL 121</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 130</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td>17</td>
</tr>
</tbody>
</table>

**Second Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>KOT 101</td>
<td>3</td>
</tr>
<tr>
<td>KOT 102</td>
<td>3</td>
</tr>
<tr>
<td>SPD 120</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 144</td>
<td>5</td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td>14</td>
</tr>
</tbody>
</table>

**Summer Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>KOT 103</td>
<td>3</td>
</tr>
<tr>
<td>KOT 104</td>
<td>2</td>
</tr>
<tr>
<td>Art Elective</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td>8</td>
</tr>
</tbody>
</table>

**Third Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>KOT 201</td>
<td>5</td>
</tr>
<tr>
<td>KOT 202</td>
<td>5</td>
</tr>
<tr>
<td>KOT 203</td>
<td>2</td>
</tr>
<tr>
<td>KOT 204</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td>15</td>
</tr>
</tbody>
</table>

**Fourth Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>KOT 200</td>
<td>2</td>
</tr>
<tr>
<td>KOT 205</td>
<td>3</td>
</tr>
<tr>
<td>KOT 206</td>
<td>3</td>
</tr>
<tr>
<td>KOT 207</td>
<td>2</td>
</tr>
<tr>
<td>SOCI 122</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td>13</td>
</tr>
</tbody>
</table>

*Course to be taken at PVCC.

PARALEGAL

A paralegal assists an attorney in all phases of the practice of law. Under the supervision of an attorney, the paralegal may prepare, summarize and interpret a variety of legal documents and pleadings; analyze, compile and utilize information from legal and technical sources including legal research; conduct client and witness interviews and investigations; and handle office administrative duties.

The Paralegal Program is approved by the American Bar Association. You may obtain an Associate of Technical Arts degree upon completion of 64 credits. A certificate is available upon completion of 24 credits of paralegal specialty courses (PL designation) if you’ve earned 30 credits of general education courses or you are otherwise qualified as determined by the coordinator of the Paralegal Program.

**Associate of Technical Arts Degree**

**First Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>PL 121</td>
<td>3</td>
</tr>
<tr>
<td>PL 123</td>
<td>1</td>
</tr>
<tr>
<td>PL 131</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 121</td>
<td>3</td>
</tr>
<tr>
<td>Required Social Science and/or Economics Course</td>
<td>3</td>
</tr>
<tr>
<td>Required Humanities and Arts Course</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td>16</td>
</tr>
</tbody>
</table>

**Second Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>PL 132</td>
<td>3</td>
</tr>
<tr>
<td>SPD 120</td>
<td>3</td>
</tr>
<tr>
<td>MATH 120</td>
<td>3</td>
</tr>
<tr>
<td>Paralegal Electives</td>
<td>4</td>
</tr>
<tr>
<td>General Electives</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td>16</td>
</tr>
</tbody>
</table>

**Third Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>PL 271</td>
<td>2</td>
</tr>
<tr>
<td>PL 275</td>
<td>1</td>
</tr>
<tr>
<td>Required Physical Development and/or Health Course</td>
<td>1</td>
</tr>
<tr>
<td>Paralegal Electives</td>
<td>3</td>
</tr>
<tr>
<td>General Electives</td>
<td>9</td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td>16</td>
</tr>
</tbody>
</table>

JCCC sponsors a variety of varsity sports for men and women.
Fourth Semester
PL  276 Paralegal Internship II  1
    Paralegal Electives  3
    General Electives  12
    TOTAL HOURS  16

Paralegal Electives
PL  152 Real Estate Law  3
PL  162 Family Law  3
PL  171 Law Office Systems  3
PL  205 Legal Writing  3
PL  212 Business Organizations  3
PL  221 Commercial Transactions  1
PL  232 Litigation II  3
PL  241 Wills, Trusts & Probate Adm.  3
PL  242 Estate Planning  3
PL  261 Retirement Plans, Qualifications and Administration  1
PL  264 Workers' Compensation  1
PL  268 Bankruptcy  1
ADMJ 141 Criminal Law  3

Certificate Program (for qualifying students)
Required Courses
PL  121 Introduction to Law  3
PL  123 Paralegal Professional Studies  1
PL  131 Legal Research  3
PL  132 Litigation I  3
PL  271 Seminar: Legal Interviewing and Investigation  2
PL  275 Paralegal Internship I  1
    Paralegal Electives  11
    TOTAL HOURS  24

BIOL  120 Life Science  4
KPT  151 Introduction to Physical Therapy  2
PSYC  130 Introduction to Psychology  3
Missouri Constitution*  3
SOC  122 Sociology  3
    TOTAL HOURS  17

Second Semester
BIOL  140 Human Anatomy  4
ENGL  121 Composition I  3
KPT  152 Fundamentals of Modalities I  3
SPD  120 Interpersonal Communication  3
    TOTAL HOURS  13

Summer Semester
KPT  155 Rehabilitation  4
KPT  161 Fundamentals of Modalities II  5
    TOTAL HOURS  9

Third Semester
KPT  153 Kinesiology  4
KPT  158 Therapeutic Exercise  5
KPT  159 Clinical Pathology  3
KPT  170 Clinical Experience I  3
KPT  171 Clinical Seminar I  1
BIOL  225 Human Physiology  4
    TOTAL HOURS  20

Fourth Semester
KPT  172 Clinical Experience II  11
KPT  173 Clinical Seminar II  2
    TOTAL HOURS  13

*Course to be taken at Penn Valley

The Learning Center will help you develop basic skills in reading, vocabulary and other areas through individualized instruction, small classes and the Tutor Exchange.

RADIOLOGIC TECHNOLOGY

The Radiologic Technology Program (X-ray technology) consists of a continuous 26-month period. You will study areas such as radiographic exposure, positioning and anatomy and the use of the imaging equipment. This is a cooperative program between JCCC and Penn Valley Community College. You must be formally accepted by both JCCC and Penn Valley to be admitted to this program. Excellent employment opportunities in this field will continue to exist in the Kansas City area. Current trends show more job openings than there are qualified technicians to fill them. Most graduates will be employed in hospitals. More job openings are becoming available in health maintenance organizations and private practices. Opportunities for specialization or four-year bachelor's degree program are open to the graduates.

Associate of Science Degree
First Semester
KRAD 169 Medical and Radiology Terms  3
KRAD 170 Radiological Technology I  3

PHYSICAL THERAPY ASSISTANT

The physical therapy assistant, under the supervision of a licensed physical therapist, performs direct patient care. As prescribed by a physician, he or she uses physical agents such as heat, light, sound, water, cold; massage; exercise; and rehabilitation techniques.

JCCC offers a cooperative program with Penn Valley Community College. The Physical Therapy Assistant program at PVCC is accredited by the American Physical Therapy Association. The support courses are held at JCCC and the core courses at Penn Valley and affiliated clinical agencies, but you register for all courses at JCCC. You must be accepted into the program by both JCCC and PVCC. Check with a JCCC counselor for additional information about the program.

Associate of Science Degree
First Semester
MRT  110 Medical Terminology I  2
RECREATIONAL LEADERSHIP

Recreational leaders and camp directors usually are people who enjoy organizing others in team sports, arts and crafts activities and other group endeavors. They also are willing to assume leadership responsibilities such as planning, conducting and evaluating an activity or program. In the United States in 1980 about 135,000 persons worked as group recreation workers and camp directors.

RESPIRATORY THERAPY

The respiratory therapist is an essential part of the critical care team who is skilled in the treatment, management and preventive care of patients with cardio-pulmonary problems. The therapist uses a wide range of sophisticated ventilatory and monitoring equipment and provides many vital services in the hospital working with people of all ages. The need for
respiratory therapists continues to grow in outpatient clinics and public health agencies as the national trend away from extended hospital stays continues.

Respiratory Therapy is a cooperative program between JCCC and Baptist Medical Center. You must complete all prerequisite courses at JCCC before entering a 12-month program of clinical training at Baptist Medical Center. You must apply for admission into the Respiratory Therapy program during the fall of the year preceding the program.

**Associate of Science Degree**

**Summer Session**

<table>
<thead>
<tr>
<th>Course</th>
<th>CR</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 122 Principles of Chemistry</td>
<td>122</td>
<td>5</td>
</tr>
<tr>
<td>ENGL 121 Composition I</td>
<td>121</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td></td>
<td>8</td>
</tr>
</tbody>
</table>

**First Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>CR</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 140 Human Anatomy</td>
<td>140</td>
<td>4</td>
</tr>
<tr>
<td>MATH 171 College Algebra</td>
<td>171</td>
<td>3</td>
</tr>
<tr>
<td>SPD 120 Interpersonal Communications</td>
<td>120</td>
<td>3</td>
</tr>
<tr>
<td>PSCI 120 Physical Science</td>
<td>120</td>
<td>4</td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td></td>
<td>14</td>
</tr>
</tbody>
</table>

**Second Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>CR</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 225 Human Physiology</td>
<td>225</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 230 Microbiology</td>
<td>230</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 231 Microbiology Lab</td>
<td>231</td>
<td>2</td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td></td>
<td>9</td>
</tr>
</tbody>
</table>

**Summer Session**

<table>
<thead>
<tr>
<th>Course</th>
<th>CR</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>RT 125 Beginning Principles of Respiratory Therapy</td>
<td>125</td>
<td>4</td>
</tr>
<tr>
<td>RT 130 Respiratory Therapy Equipment</td>
<td>130</td>
<td>4</td>
</tr>
<tr>
<td>RT 135 Cardiopulmonary Medicine I</td>
<td>135</td>
<td>1</td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td></td>
<td>9</td>
</tr>
</tbody>
</table>

**Third Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>CR</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>RT 220 Clinical Cardiopulmonary Physiology</td>
<td>220</td>
<td>4</td>
</tr>
<tr>
<td>RT 271 Clinical Practice I</td>
<td>271</td>
<td>4</td>
</tr>
<tr>
<td>RT 230 Clinical Topics and Procedures I</td>
<td>230</td>
<td>3</td>
</tr>
<tr>
<td>RT 235 Cardiopulmonary Medicine II</td>
<td>235</td>
<td>2</td>
</tr>
<tr>
<td>RT 245 Respiratory Pharmacology</td>
<td>245</td>
<td>2</td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td></td>
<td>16</td>
</tr>
</tbody>
</table>

**Fourth Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>CR</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>RT 272 Clinical Practice II</td>
<td>272</td>
<td>4</td>
</tr>
<tr>
<td>RT 231 Clinical Topics &amp; Procedures II</td>
<td>231</td>
<td>4</td>
</tr>
<tr>
<td>RT 233 Respiratory Care of Children</td>
<td>233</td>
<td>2</td>
</tr>
<tr>
<td>RT 236 Cardiopulmonary Medicine III</td>
<td>236</td>
<td>2</td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td></td>
<td>12</td>
</tr>
</tbody>
</table>

**Associate of Technical Arts Degree**

**Secretarial Science**

**First Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>CR</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 121 Introduction to Business</td>
<td>121</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 121 Composition I</td>
<td>121</td>
<td>3</td>
</tr>
<tr>
<td>SEC 122 Intermediate Typing</td>
<td>122</td>
<td>3</td>
</tr>
<tr>
<td>SEC 125 Shorthand I</td>
<td>125</td>
<td>3</td>
</tr>
<tr>
<td>SEC 130 Stenograph Speedwriting Shorthand</td>
<td>130</td>
<td>3</td>
</tr>
<tr>
<td>SEC 274 Human Relations Seminar</td>
<td>274</td>
<td>2-3</td>
</tr>
<tr>
<td>Electives</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td></td>
<td>16-17</td>
</tr>
</tbody>
</table>

**Second Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>CR</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DP 124 Business Data Processing</td>
<td>124</td>
<td>3</td>
</tr>
<tr>
<td>SEC 136 Records Management</td>
<td>136</td>
<td>3</td>
</tr>
<tr>
<td>SEC 126 Shorthand II</td>
<td>126</td>
<td>3</td>
</tr>
<tr>
<td>SEC 131 Stenograph Dictation Transcription</td>
<td>131</td>
<td>3</td>
</tr>
<tr>
<td>SEC 135 Electronic Calculators</td>
<td>135</td>
<td>1</td>
</tr>
<tr>
<td>SEC 271 Management Seminar</td>
<td>271</td>
<td>2-3</td>
</tr>
<tr>
<td>Electives</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td></td>
<td>17-18</td>
</tr>
</tbody>
</table>

**Third Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>CR</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEC 230 Secretarial Procedures I</td>
<td>230</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 121 Accounting I</td>
<td>121</td>
<td>3</td>
</tr>
<tr>
<td>or ACCT 111 Small Business Accounting</td>
<td>111</td>
<td>3</td>
</tr>
<tr>
<td>MATH 120 Business Math</td>
<td>120</td>
<td>3</td>
</tr>
<tr>
<td>Humanities or Fine Arts Elective</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>SEC 276 Administrative Office</td>
<td>276</td>
<td>2-3</td>
</tr>
<tr>
<td>Management Seminar</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td></td>
<td>16-17</td>
</tr>
</tbody>
</table>

**Fourth Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>CR</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEC 231 Secretarial Procedures I</td>
<td>231</td>
<td>3</td>
</tr>
<tr>
<td>SEC 223 Machine Transcription</td>
<td>223</td>
<td>3</td>
</tr>
<tr>
<td>ECON 230 Economics I</td>
<td>230</td>
<td>3</td>
</tr>
<tr>
<td>or ECON 130 Basic Economics</td>
<td>130</td>
<td>3</td>
</tr>
<tr>
<td>Physical Development or Health Elective</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>SEC 279 Business Law Seminar</td>
<td>279</td>
<td>2</td>
</tr>
<tr>
<td>Electives</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td></td>
<td>14-15</td>
</tr>
</tbody>
</table>

**SECRETARIAL CAREERS**

Good office skills are essential to becoming a good secretary. The ability to type well and to manage records, a background in accounting, a familiarity with data processing and word processing skills are just a few of the areas in which you need to be proficient. Job prospects for secretaries who are familiar with a wide range of automated office machines are likely to be better than for those without.

JCCC's two-year career program concentrates on developing these skills. You will be trained on the latest equipment and procedures in laboratories that contain four Memory and two Mag Card II automatic typewriters. Machine transcription is taught on the latest equipment using cassette transcribing techniques. Also offered are programs for those who wish to specialize in medical or legal secretarial careers.

You may withdraw from a course up to one week before the last day of the semester without hurting your grade point average.

You and your family may have your teeth checked, cleaned, X-rayed and treated with fluoride for a small fee at the Dental Hygiene Clinic.
Recommended Electives

BUS 150 Business Communications .................. 3
DP 124 Business Data Processing .................. 3
BUS 121 Introduction to Business .................. 3
SEC 225 Dictation/Transcription .................. 3
BUS 261 Business Law I .................. 3
BUS 263 Business Law II .................. 3
PL 171 Law Office Systems .................. 3
SPD 120 Interpersonal Communication .................. 3
SEC 221 Production Typing .................. 3
IWP 121 Word Processing Applications I .................. 3

Associate of Technical Arts Degree
Medical Secretary

First Semester
SEC 122 Intermediate Typing .................. 3
MRT 110 Medical Terminology I .................. 2
ENGL 121 Composition I .................. 3
SEC 125 Shorthand I .................. 3
IWP 121 Word Processing Applications I .................. 3
SEC 135 Electronic Calculators .................. 1
SEC 274 Human Relations Seminar .................. 2-3
TOTAL HOURS .................. 14-15

Second Semester
SEC 136 Records Management .................. 3
MRT 112 Medical Terminology II .................. 1
SEC 126 Shorthand II .................. 3
or
IWP 132 Word Processing Applications II .................. 3
ECON 230 Economics I .................. 3
SEC 271 Management Seminar .................. 2-3
Electives .................. 4
TOTAL HOURS .................. 17-18

Third Semester
SEC 230 Secretarial Procedures I .................. 3
MRT 114 Medical Terminology III .................. 1
MATH 120 Business Math .................. 3
SEC 223 Machine Transcription .................. 3
SEC 276 Administrative Office Management Seminar .................. 2-3
TOTAL HOURS .................. 15-16

Fourth Semester
SEC 231 Secretarial Procedures II .................. 3
MRT 137 Medical Transcription .................. 3
ACCT 121 Accounting I .................. 3
or
ACCT 111 Small Business Accounting .................. 3
SEC 279 Business Law Seminar .................. 2-3
Humanities and Fine Arts Elective .................. 3
TOTAL HOURS .................. 14-15

Recommended Electives
SEC 221 Production Typing .................. 3
DP 124 Business Data Processing .................. 3
BUS 150 Business Communications .................. 3
PSYC 130 Introduction to Psychology .................. 3
SEC 225 Dictation and Transcription .................. 3
BIOL 144 Human Anatomy/Physiology .................. 3
SPD 120 Interpersonal Communication .................. 3

Associate of Technical Arts Degree
Legal Secretarial Option

First Semester
ENGL 121 Composition I .................. 3
SEC 136 Records Management .................. 3
SEC 122 Intermediate Typing .................. 3
SEC 223 Machine Transcription .................. 3
PD Physical Development or Health Elective .................. 1
SEC 274 Human Relations Seminar .................. 2-3
TOTAL HOURS .................. 15-16

Second Semester
SEC 142 Legal Transcription .................. 3
SEC 140 Legal Secretary I .................. 2
ECON 230 Economics I .................. 3
or
ECON 130 Basic Economics .................. 3
Humanities or Fine Arts Elective .................. 3
SEC 135 Electronic Calculators .................. 1
SEC 271 Management Seminar .................. 2-3
Electives .................. 3
TOTAL HOURS .................. 17-18

Third Semester
SEC 125 Shorthand I .................. 3
or
IWP 121 Word Processing Applications I .................. 3
SEC 230 Secretarial Procedures I .................. 3
MATH 120 Business Math .................. 3
PL 131 Legal Research & Writing .................. 3
SEC 276 Administrative Office Management Seminar .................. 2-3
TOTAL HOURS .................. 17-18

Fourth Semester
SEC 126 Shorthand II .................. 3
or
IWP 132 Word Processing Applications II .................. 3
SEC 231 Secretarial Procedures II .................. 3
ACCT 121 Accounting I .................. 3
or
ACCT 111 Small Business Accounting .................. 3
SEC 279 Business Law Seminar .................. 2-3
Electives .................. 3
TOTAL HOURS .................. 14-15

Recommended Electives
BUS 150 Business Communications .................. 3
DP 124 Business Data Processing .................. 3
BUS 121 Introduction to Business .................. 3
SEC 225 Dictation and Transcription .................. 3
ENGL 121 Composition I .................. 3
SEC 136 Records Management .................. 3
SEC 135 Electronic Calculators .................. 1

Certificate Program

ACCT 122 Intermediate Typing .................. 3
ACCT 111 Small Business Accounting .................. 3
SEC 230 Secretarial Procedures I .................. 3
SEC 231 Secretarial Procedures II .................. 3
ENGL 121 Composition I .................. 3
SEC 136 Records Management .................. 3
SEC 135 Electronic Calculators .................. 1

There is no housing on the JCCC campus. If you need housing, check the bulletin board in the Student Activities area and the file in the Career Planning and Placement Center for apartments, houses and rooms for rent.
SMALL ANIMAL HEALTH

A person with a background in small animal health can expect to find employment opportunities in the areas of laboratory care and pharmaceutical animal colonies and in assisting a veterinarian in providing professional services and in performing office routines.

JCCC's Small Animal Health Program is offered in cooperation with the Animal Health Technology Program at Maple Woods Community College. You will study such areas as sanitation and animal care, preparing animals for surgery, anesthetic management, performing lab work and radiological techniques. The program also features a supervised intensive clinical study under the direction of a veterinarian. You must be accepted for admission by both JCCC and Maple Woods Community College.

Associate of Science Degree

Courses Offered at Maple Woods  CR
KA SA 100 Intro. to Small Animal Tech.  2
KA SA 111 Sanitation & Animal Care  2
KA SA 108 Clinical Mathematics  1
KA SA 101 Prin. of Animal Science I  3
KA SA 110 Prin. of Animal Science II  3
KA SA 120 Clinical Path. Techniques I  4
KA SA 214 Animal Health Internship  6
KA SA 200 Animal Hosp. Technology I  3
KA SA 202 Animal Tech. Anatomy  5
KA SA 203 Laboratory Animal Tech.  2
KA SA 210 Animal Hosp. Tech. II  3
KA SA 211 Clinical Path. Tech. II  5
KA SA 212 Large Animal Technology  4
KA SA 213 Radiology & Elec. Procedures  2
TOTAL HOURS  45

Courses Offered at JCCC  CR
BIOL 127 General Zoology  5
ENGL 121 Composition I  3
ACCT 111 Small Business Accounting  3
CHEM 124 General Chemistry I Lecture  4
and
CHEM 125 General Chemistry I Lab  1
or
CHEM 122 Principles of Chemistry  5
POLS 124 American National Government  
or
HIST American History Elective  3
SPD 120 Interpersonal Communication  3
BIOL 230 Microbiology  3

TOTAL HOURS  27

Note: If you plan to graduate from Maple Woods, check with the coordinator of the Small Animal Health program about the Missouri Constitution requirement.

All the buildings on campus face inward on open courtyards.

All parking at JCCC is free.
ACCOUNTING

ACCT 111
SMALL BUSINESS ACCOUNTING (3CR)
This course is designed for the small business operator who occasionally uses an outside accountant. Focus is on how to start and operate a small business with emphasis on basic accounting procedures used in a small firm. This class does not prepare the student for ACCOUNTING I. 3 hrs./wk. (BAC 2171)

ACCT 115
ACCOUNTING FOR NONPROFIT ORGANIZATIONS (3CR)
Topics in this introduction to nonprofit accounting include primary funds and accounting groups, the budget process and practice variances among the major not-for-profit users. 3 hrs./wk. (BAC 4218)

ACCT 121
ACCOUNTING I (3CR)
This introduction to accounting fundamentals emphasizes recording of business transactions, accounting systems, financial statements and summarizing at the close of the fiscal period. 3 hrs./wk. (BAC 4092)

ACCT 122
ACCOUNTING II (3CR)
Prerequisite: ACCT 121
Content includes accounts and records peculiar to corporations and manufacturing firms, along with the preparation and use if financial statements. 3 hrs./wk. (BAC 5096)

ADMJ 271
EMERGENCY DISPATCHER FIELD STUDY (3CR)
Prerequisite: Only students in appropriate programs will be accepted. Approval of division director required.
Students will gain on-the-job training under the supervision of a qualified dispatcher in law enforcement, fire protection or emergency medical services. The field study will be conducted at an approved dispatching station and arranged by the JCCC program coordinator. By arrangement. (SLE 5063)

ACCT 131
FEDERAL INCOME TAXES I (3CR)
Procedures for reporting federal income taxes will be explained with emphasis on income and deductions for individuals. Students will practice preparing returns in class. 3 hrs./wk. (BAC 2360)

ACCT 221
COST ACCOUNTING (3CR)
Prerequisite: ACCT 122
Two aspects of cost accounting will be emphasized: how to determine the unit cost of manufactured goods and how management can use such information. 3 hrs./wk. (BAC 2436)

ACCT 222
MANAGERIAL ACCOUNTING (3CR)
Prerequisite: ACCT 122
The managerial development and use of accounting information will be discussed. Topics include financial statement analysis, cost application and budgeting reports. 3 hrs./wk. (BAC 4063)

ACCT 231
INTERMEDIATE ACCOUNTING I (3CR)
Prerequisite: ACCT 122
Topics include the valuation of balance sheet accounts, fund flow analysis, cash and receivables, inventories, fixed assets and liabilities. 3 hrs./wk. (BAC 6299)

ACCT 232
INTERMEDIATE ACCOUNTING II (3CR)
Prerequisite: ACCT 122
How accounting concepts and technical procedures apply to capital structure, earnings and dividends will be discussed in this class. Topics include long-term investments and debts, leases and pensions, analysis of financial reports, and price-level, fair-value accounting and reporting. 3 hrs./wk. (BAC 6294)

ACCT 271
FIELD STUDY: HUMAN RELATIONS (2-3CR)
Human relations, communications and decision making will be important topics in this class. Weekly class discussions will help students relate human relations to work experience. 2 hrs./wk. (BAC 3370)

ACCT 272
FIELD STUDY: ACCOUNTING SEMINAR (2-3CR)
Prerequisite: ACCT 122
By completing several accounting cycles and practice sets, students will review accounting principles and practices. 2 hrs./wk. (BAC 3871)

ADMINISTRATION OF JUSTICE

ADMJ 121
INTRODUCTION TO ADMINISTRATION OF JUSTICE (3CR)
Emphasis will be on the historical and philosophical development of the criminal justice system. Includes participation in the field as well as classroom experience. 3 hrs./wk. (SLE 2080)

ADMJ 124
STUDY OF THE CRIMINAL JUSTICE SYSTEM (3CR)
Subsystems of the criminal justice system will be analyzed and identified. 3 hrs./wk. (SLE 7108)

ADMJ 127
CRIMINOLOGY (3CR)
This class explores theories of criminal behavior, treatment, correction, crime prevention and control. Contemporary trends will be highlighted. 3 hrs./wk. (SLE 1585)
ADMJ 130
CRIME PREVENTION (3CR)
Topics of special interest include the techniques used by public
service agencies to initiate crime prevention programs. The
specific interest being the community. 3 hrs./wk. (SLE 4263)

ADMJ 133
JUVENILE DELINQUENCY (3CR)
This course provides an analysis of juvenile offenders throughout
the United States and how they provide technically-accurate,
cost-effective security recommendations to the community. 3 hrs./wk. (SLE 3166)

ADMJ 136
POLICE AND THE PUBLIC (3CR)
This course will identify and analyze conflict that arises between police and the communities they
serve. 3 hrs./wk. (SLE 6432)

ADMJ 140
CONSTITUTIONAL CASE LAW (3CR)
Students will study Supreme Court decisions which have had significant impact on law enforcement tech-
niques and procedures. 3 hrs./wk. (SLE 4418)

ADMJ 141
CRIMINAL LAW (3CR)
Prerequisite: ADMJ 124
The Kansas Criminal Code will be the focus of this
class which emphasizes elements of crimes and crim-
nal procedure. 3 hrs./wk. (SLE 4588)

ADMJ 145
FUNDAMENTALS OF PRIVATE SECURITY (3CR)
This overview of the private security field includes a
look at how industry, business, government and insti-
tutions handle security. 3 hrs./wk. (SLE 5006)

ADMJ 146
RETAIL SECURITY (3CR)
This is a study of retail security supervision and man-
agement. Topics include employment practices, em-
ployee dishonesty, controlling shoplifters and building and perimeter protection. 3 hrs./wk. (SLE 4163)

ADMJ 150
MOTOR VEHICLE LAW (3CR)
Prerequisite: ADMJ 124
This is a study of standard traffic ordinances for
Kansas cities with emphasis on fundamentals of traffic
regulations and controls as they relate to law enforce-
ment, courts and governmental functions. 3 hrs./wk. (SLE 2461)

ADMJ 151
TRAFFIC SAFETY AND
ACCIDENT INVESTIGATION (3CR)
Topics include traffic safety, enforcement, identifying, analyzing and investigating the accident; and prepar-
ing scale diagrams of the accident. 3 hrs./wk. (SLE 6653)

ADMJ 154
FUNDAMENTALS OF CRIMINAL
INVESTIGATION (3CR)
Prerequisite: ADMJ 124
Topics include crime scene search techniques; collec-
tion and preservation of evidence; interviewing; and logical reconstruction of the crime. 3 hrs./wk. (SLE 5137)

ADMJ 157
PATROL PROCEDURES (3CR)
Prerequisite: ADMJ 121 or ADMJ 124
This course covers basic police patrol functions including
report writing, traffic law enforcement, arrest, search and seizure, patrol and peacekeeping. 3 hrs./wk. (SLE 4033)

ADMJ 164
SUPERVISORY TECHNIQUES
FOR POLICEMEN (3CR)
Prerequisite: ADMJ 124
Current theory and practice of the supervisor's role in
the police service will be discussed. 3 hrs./wk. (SLE 7161)

ADMJ 166
POLICE ORGANIZATION
AND MANAGEMENT (3CR)
The organization of a police department will be the
focus of this class. Emphasis will be on achieving
departmental objectives through the management of
people, money and materials. 3 hrs./wk. (SLE 7454)

ADMJ 221
INTRODUCTION TO CRIMINALISTICS (3CR)
Prerequisite: ADMJ 154
This course provides training in the techniques and
methods used to establish the identity and individual-
ization of persons and things in a criminalistic labora-
tory. 3 hrs./wk. (SLE 7292)

ADMJ 225
DEFENSIVE TACTICS FOR POLICE (3CR)
Prerequisite: 15 credit hours in ADMJ courses
Areas covered in this class include the use of the
baton and service revolver and constitutional limitations
on the use of force. Students are required to
furnish ammunition for the service revolver. 3 hrs./wk. (SLE 7288)
ADMJ 265
BASIC POLICE TRAINING COURSE (1-15CR)
Prerequisite: Student must be currently employed full time by a participating law enforcement agency.
Basic patrol procedures will be covered in this class. This class fulfills and exceeds requirements of the Kansas Minimum Standards Training Act. A minimum of 480 clock hrs., 8 hrs. a day, 5 days/wk. for 12 wks. (SLE 3045)

ADMJ 271
EMERGENCY DISPATCHER FIELD STUDY (3CR)
Prerequisite: Only students in appropriate programs will be accepted. Approval of division director required.
Students will gain on-the-job training under the supervision of a qualified dispatcher in law enforcement, fire protection or emergency medical services. The field study will be conducted at an approved dispatching station and arranged by the JCCC program coordinator. By arrangement (SLE 5063)

ADMJ 281
READINGS IN POLICE SCIENCE (3CR)
Prerequisite: 15 credit hours in ADMJ courses
The class consists of selected readings in police science on topics such as police administration, criminal investigation, criminology, corrections, juvenile problems and evidence. By arrangement.
(SLE 1174)

AGRICULTURE

AGRI 120
INTRODUCTION TO AGRIBUSINESS (2CR)
This survey of agribusiness and its role in the economy includes a look at career opportunities in the field. Students also will compare several business forms. 2 hrs./wk. (NAB 2853)

AGRI 122
AGRICULTURAL ECONOMICS (3CR)
Students will examine concepts of supply and demand, profit maximization, price determination and marginal analysis as each relates to agricultural firms. 3 hrs./wk. (NAB 2854)

AGRI 125
MICROCOMPUTERS IN AGRIBUSINESS (1CR)
Students will examine the role of microcomputers, specifically their role in agribusiness. Emphasis will be on the selection of hardware and software; machine operating principles; recordkeeping and business analysis programs and packages. 1 hr. lecture/wk. (NAB 1372)

AGRI 220
PRINCIPLES OF ANIMAL SCIENCE (4CR)
Prerequisite: BIOL 127 or BIOL 120 or BIOL 122 and BIOL 123
The production of beef, swine, sheep, horse and poultry species will be studied. Topics include a survey of the industry; types, purposes and products of livestock; breeding principles, selection, nutrition, lactation, reproduction; management and marketing. 3 hrs. lecture, 2 hrs. lab/wk. (NAB 2846)

AGRI 225
PESTICIDE USE AND SAFETY (4CR)
Students will examine the use of fertilizers, pesticides and other agricultural materials. Topics include applicator licensing, selection, application, calibration of equipment and safety. 3 hrs. lecture, 2 hrs. lab/wk. (NAB 2750)

AGRI 230
FUNDAMENTALS OF ANIMAL NUTRITION (3CR)
Prerequisite: AGRI 220 and CHEM 122
This course will examine the composition of various feedstuffs, nutrient requirements of livestock, ration formulation and balancing and feed processing methods. 3 hrs. lecture/wk. (NAB 2873)

AGRI 235
SOIL SCIENCE (4CR)
Prerequisites: CHEM 122 or CHEM 124 and CHEM 125, CHEM 131 and CHEM 132
This is a course designed to acquaint students with the biological, physical and chemical properties of soils. 3 hrs. lecture, 2 hrs. lab/wk. (NAB 5207)

AGRI 240
CROP SCIENCE (4CR)
Prerequisite: BIOL 125 or BIOL 120 or BIOL 122 and BIOL 123
This is a review of the production of crop and forage plants. Topics include growth, development, culture, harvesting and storage of grains and forages produced in Kansas. 3 hrs. lecture, 2 hrs. lab/wk.
(NAB 2852)

AGRI 271
SUPERVISED OCCUPATIONAL EXPERIENCE (5CR)
Prerequisite: Completion of first-year of agribusiness program
Students will work under supervision for a minimum of 240 clock hours in an approved area of agribusiness. By arrangement. (NAB 3727)

ANTHROPOLOGY

ANTH 125
CULTURAL ANTHROPOLOGY (3CR)
The political, economic, religious, family and social aspects of major groups of people around the world will be examined. Hunters, tribesmen, peasants and industrial populations also will be studied. 3 hrs./wk. (SS 1029)
ANTH 126
PHYSICAL ANTHROPOLOGY (3CR)
This study of physical anthropology includes archaeology, human variation, physical evolution, primate societies and the emergence of human society. Cross-disciplinary topics of interest will be included. 3 hrs./wk. (SS 3721)

ART

ART 121
ART FUNDAMENTALS (3CR)
This intensive exploration of the visual arts is designed to acquaint students with art forms and art application. 6 hrs. lecture/wk. (HAR 1608)

ART 123
ELEMENTARY ART METHODS (3CR)
This is an exploration of art activities for children from preschool through sixth grade. 3 hrs. lecture, 3 hrs. lab/wk. (HAR 4099)

ART 124
DESIGN, 2D (3CR)
This is an introductory study of the principles of visual perception, two-dimensional space organization and the visual elements of line, shape and texture. 6 hrs./wk. (HAR 2880)

ART 127
DESIGN, 3D (4CR)
This is an introductory study of three-dimensional space organization. Students will explore concepts, materials and processes necessary for an understanding of both visual and structural properties such as balance, proportion, line, mass, volume and plane. 8 hrs./wk. (HAR 6021)

ART 129
DESIGN, COLOR (3CR)
This is a study of the nature of color, its physical properties and visual qualities. Problems relating to color as light and pigment will be explored. 6 hrs./wk. (HAR 7209)

ART 130
DRAWING I (3CR)
This introductory drawing course emphasizes the development of fundamental drawing skills. 6 hrs./wk. (HAR 7576)

ART 131
DRAWING II (3CR)
Prerequisite: ART 130
Students will concentrate on figure drawing and free-hand drawing with a conceptual approach. 6 hrs./wk. (HAR 3033)

ART 135
PAINTING I (3CR)
Emphasis will be on developing visual perception in this study of still life, landscape and human form. 6 hrs./wk. (HAR 5004)

ART 136
PAINTING II (3CR)
Prerequisite: ART 135
In this advanced painting class, emphasis is on personal direction and developing a consistent body of work. 6 hrs./wk. (HAR 6011)

ART 142
CERAMICS I (3CR)
In this basic course in wheel-throwing techniques, studio experiences will acquaint students with firing and glazing techniques. Optional techniques include hand-building and slab construction. 6 hrs./wk. (HAR 6193)

ART 143
CERAMICS II (3CR)
Prerequisite: ART 142
This course deals with more advanced methods of research with studio experiences in ceramic wheel techniques and glaze research. 6 hrs./wk. (HAR 2211)

ART 145
SCULPTURE I (3CR)
Students will explore and study natural and synthetic sculptural forms as they create work using traditional or contemporary media and techniques. 6 hrs./wk. (HAR 2089)

ART 146
SCULPTURE II (3CR)
Prerequisite: ART 145
This continuation of ART 145 focuses on advanced methods and techniques with emphasis on materials and forms. 6 hrs./wk. (HAR 3094)
ART 148
METAL AND SILVERSMITHING I (3CR)
The metalsmithing techniques of casting and constructing brass, copper and silver will be studied along with buffing, sawing, filing and soldering processes. 6 hrs./wk. (HAR 3495)

ART 149
METAL AND SILVERSMITHING II (3CR)
Prerequisite: ART 148
Students will study advanced metalsmithing techniques of casting, constructing and etching, using copper, brass, bronze, silver and other materials. 6 hrs./wk. (HAR 3496)

ART 151
FIBER DESIGN I (3CR)
In this introductory fiber course, projects range from two-harness weaver-controlled techniques to more complex procedures involving the use of four-harness floor looms. 6 hrs./wk. (HAR 7234)

ART 152
FIBER DESIGN II (3CR)
Prerequisite: ART 151
Advanced problems in structural weaving will be explored using multi-harness looms. Notebook required. 6 hrs./wk. (HAR 7235)

ART 155
SMALL LOOM TECHNIQUES (3CR)
This is a study of the art of textile construction methods. Topics include single and double element construction, fiber properties, spinning and dyeing. 6 hrs./wk. (HAR 1866)

ART 166
RAKU CERAMICS (3CR)
RAKU CERAMICS deals with the oriental process of making and firing Raku pottery—a spontaneous low-fire approach to a finished product involving the rapid firing and cooling of the pottery. Hand-formed (pinched and slab) as well as wheel-thrown forms will be researched. Emphasis is on non-wheel manipulations of form. 6 hrs./wk. (HAR 7666)

ART 172
WATERCOLOR PAINTING (3CR)
Prerequisite: ART 130 or ART 135
Students will work from a variety of representational and non-objective situations using watercolor as a means to study color, value and composition in transparent media. 6 hrs./wk. (HAR 5405)

ART 222
INTRODUCTION TO PRINTMAKING (3CR)
Prerequisite: ART 124 and either ART 130 or CA 130.
This is an introduction to a variety of traditional and contemporary printmaking processes including relief, intaglio, lithography and mixed media. 6 hrs./wk. (HAR 3564)

ART 223
SILKSCREEN (3CR)
Prerequisite: ART 124 and either ART 130 or CA 130
An exploration of silkscreen techniques, this class covers paper stencil, hand-cut film and photo stencil processes. 6 hrs./wk. (HAR 4028)

ART 231
LIFE DRAWING I (3CR)
Prerequisite: ART 130
Students will work from live models in this study of the fundamentals of figure drawing. 6 hrs./wk. (HAR 2021)

ART 232
LIFE DRAWING II (3CR)
Prerequisite: ART 231
This is an advanced figure drawing course in which students will work from live models. 6 hrs./wk. (HAR 6662)

ART 235
STUDIO WORKSHOP I (3CR)
Prerequisite: ART 131 or ART 136
Emphasis will be on individual studio activity in painting or drawing with the course content being decided upon by the student under a faculty member's supervision. 6 hrs./wk. (HAR 6879)

ART 236
STUDIO WORKSHOP II (3CR)
Prerequisite: ART 235
Emphasis will be on individual studio activity with course content decided upon by the student under the supervision of a faculty member. 6 hrs./wk. (HAR 6880)

ART 244
CERAMICS WORKSHOP I (3CR)
Prerequisite: ART 143 and permission of division director.
Students will have the opportunity to pursue advanced individual projects under the direction of an instructor. Emphasis is on building skills in areas not covered in regular ceramic classes. 6 hrs. class-lab./wk. (HAR 5177)

ART 281
DIRECTED READINGS IN CONTEMPORARY AMERICAN ART (1CR)
Prerequisite: Approval of division director
The technical and philosophical points of view of contemporary American artists are examined in this course. By arrangement. 1 hr./wk. (HAR 3333)
ART 298
AMERICAN ART SINCE 1945 (1CR)
A study of American painting and drawing, this class traces developments from 1945 though today. Students will study work in major museums and important commercial galleries through travel to major art centers. 1 hr. lecture, 2 hrs. lab/wk. (HAR 3008)

AUTOMOTIVE TECHNOLOGY

AUTO 125
INTRODUCTION TO AUTOMOTIVE SHOP PRACTICES (3CR)
Corequisite: MATH 111 or satisfactory score on Math Assessment Exam
Basic skills will be covered including: selection, use of fasteners, service manuals, wiring diagrams and diagnosis charts. 2 hrs. lecture, 3 hrs. lab/wk.

AUTO 150
AUTOMOTIVE TRANSMISSIONS AND DRIVELINES (4CR)
Corequisites: MATH 133, AUTO 125
In this course the focus is on the theory of the transfer of power from the engine flywheel to the drivewheels, with emphasis on trouble-shooting for transmission, driveline and differential components. 3 hrs. lecture, 3 hrs. lab/wk. Fall. (TAU 5606)

AUTO 160
AUTOMOTIVE ENGINES I (3CR)
Prerequisites: MATH 133, AUTO 125
Focus will be on the 4-stroke cycle internal combustion engine, computing compression ratio, piston displacement, horsepower and torque and analyzing and correcting internal engine malfunctions. 2 hrs. lecture, 3 hrs. lab/wk. (TAU 5607)

AUTO 222
AUTOMOTIVE STARTING, CHARGING AND IGNITION (3CR)
Prerequisite: AUTO 160
Corequisite: PHYS 125
The function, construction and operation of the starting, ignition and charging systems will be covered in this course. 2 hrs. lecture, 3 hrs. lab/wk. (TAU 5608)

AUTO 230
AUTOMOTIVE A/C, LIGHTING AND POWER ACCESSORIES (4CR)
Prerequisites: PHYS 125, AUTO 160
Topics include the function, construction and operation of automotive heating, air conditioning, lighting and power systems. 6 hrs. class-lab/wk. (TAU 5611)

AUTO 235
AUTOMOTIVE DIAGNOSIS AND EVALUATION (4CR)
Prerequisites: AUTO 125, AUTO 150, AUTO 163, AUTO 222, AUTO 225, AUTO 230
Skills necessary for entry-level employment are emphasized in this class as students are asked to perform skills learned in earlier semesters. Evaluation will be based on industry standards. 8 hrs. class-lab/wk. (TAU 5612)

AUTO 240
AUTOMOTIVE DEALERSHIP OPERATION (3CR)
Prerequisite: MATH 133
In this course students study the operation of an auto dealership and building design and physical requirements for covered and uncovered areas. 3 hrs. lecture/wk. (TAU 5614)

AUTO 255
AUTO CARBURETION, DIESEL AND FUEL INJECTION (3CR)
Prerequisites: AUTO 160
Topics include the function, operation and construction of carburetors, fuel pumps, injection pumps and injectors in diesel and gasoline engines. 5 hrs. class-lab/wk. (TAU 5609)

AUTO 271
AUTOMOTIVE TECHNOLOGY COOPERATIVE EDUCATION (2-9CR)
Prerequisite: Approval of division director
This cooperative education course provides advanced students with on-the-job training under the supervision of professionals in the industry. The work experience will be developed cooperatively with area employers, college staff and each student to provide a variety of job experiences directly related to the student's career goals. 1 hr. lecture, 6-27 hrs. lab/wk. (TAU 5617)

AUTO 272
AUTOMOTIVE COOPERATIVE EDUCATION II (2-9CR)
Prerequisite: AUTO 271 and approval of division director

AUTO 273
AUTOMOTIVE COOPERATIVE EDUCATION III (2-9CR)
Prerequisite: AUTO 272 and approval of division director

JCCC is the only college in Kansas to offer CAD/CAM (computer aided design and manufacturing) training.

Orientation programs for new students are held at the beginning of each semester through the Counseling Center.


AVIATION

KAV 100
INTRODUCTION TO AVIATION MAINTENANCE (18CR)
General aviation practices will be introduced. Also addressed will be theory and practical application in the areas of basic electricity, drafting, fluid lines and fittings, materials and processes, ground operation and servicing, publications, and mechanics privileges and limitations. 11 hrs. lecture, 15 hrs. lab/wk. (KAV 8451)

KAV 101
CARBURATION AND LUBRICATION (6CR)
Prerequisite: KAV 100
This class presents the theory and practical application of engine lubricating systems, engine fuel systems, fuel metering systems and induction systems. 5 hrs. lecture, 5 hrs. lab/wk. (KAV 8461)

KAV 102
WOOD AND FABRIC (3CR)
Prerequisite: KAV 100
The fundamentals of wood structures, aircraft covering and aircraft finishes will be introduced. 2 hrs. lecture, 3 hrs. lab/wk. (KAV 8452)

KAV 103
AIRCRAFT RECIPROCATING POWER PLANT (6CR)
Prerequisite: KAV 100
Aircraft reciprocating power plants will be introduced along with the theory and practical application of reciprocating engines and engine exhaust systems. 4 hrs. lecture, 5 hrs. lab/wk. (KAV 8462)

KAV 104
ASSEMBLY AND RIGGING (6CR)
Prerequisite: KAV 100
Students will focus on the practical application of assembly and rigging and airframe inspection. 4 hrs. lecture, 5 hrs. lab/wk. (KAV 8453)

KAV 105
PROPPELLERS (5CR)
Prerequisite: KAV 100
The theory and practical application of a wide range of propeller types will be introduced as well as engine cooling systems. 3 hrs. lecture, 4 hrs. lab/wk. (KAV 8463)

KAV 106
HYDRAULIC AND PNEUMATIC SYSTEMS (6CR)
Prerequisite: KAV 100
Areas covered include inspection, checking, servicing and trouble-shooting hydraulic and pneumatic power systems and air conditioning, pressurization and oxygen systems. 10 hrs. lecture, 11 hrs. lab/wk. (KAV 8454)

KAV 107
JET PROPULSION POWER PLANT (5CR)
Prerequisite: KAV 100
Topics include gas turbine engines; principles of operation of gas turbine engines and their application to aircraft today; and inspecting, servicing and trouble-shooting. 4 hrs. lecture, 3 hrs. lab/wk. (KAV 8464)

KAV 108
AIRCRAFT ELECTRICAL AND RELATED SYSTEMS (6CR)
Prerequisite: KAV 100
This course presents the theory and application of position and warning systems and ice and rain control systems and related areas. 4 hrs. lecture, 4 hrs. lab/wk. (KAV 8455)

KAV 109
AIRCRAFT IGNITION AND STARTING SYSTEMS (4CR)
Prerequisite: KAV 100
The principles of aircraft ignition and starting systems will be introduced with emphasis on the practical application of ignition timing and magneto disassembly and repair. Summer. 5 hrs. lecture, 6 hrs. lab/wk. (KAV 8465)

KAV 200
SHEET METAL AND WELDING (7CR)
Prerequisite: KAV 100
Gas welding, sheet metal fabrication and methods for the application of aircraft structural repair. 3 hrs. lecture, 8 hrs. lab/wk. (KAV 8456)

KAV 201
POWER PLANT TESTING (5CR)
Prerequisite: KAV 100
This course will address engine and engine system inspection. Also discussed will be the removal, installation, run-up and trouble-shooting of aircraft reciprocating engines. 3 hrs. lecture, 5 hrs. lab/wk. (KAV 8466)

KAV 202
AIRCRAFT FUEL SYSTEMS AND FIRE PROTECTION, NAVIGATION AND INSTRUMENT SYSTEMS (2CR)
Prerequisite: KAV 100
Aircraft fuel systems and fire protection systems will be addressed. Topics include inspection, checking, servicing and trouble-shooting. 3 hrs. lecture, 3 hrs. lab/wk. for 8 wks. (KAV 8457)

KAV 203
ELECTRICITY, GENERATOR-ALTERNATOR (6CR)
Prerequisite: KAV 100
Theory and research related to aircraft engine electrical systems will be presented. 8 hrs. lecture, 8 hrs. lab/wk. for 8 wks. (KAV 8467)
KAV 204
AIRCRAFT COMMUNICATIONS, NAVIGATION AND INSTRUMENT SYSTEMS (6CR)
Prerequisite: KAV 100
This course focuses on the theory and practical application of auto pilot and approach systems and inspection and repair of antenna and equipment installations. 4 hrs. lecture, 4 hrs. lab/wk. (KAV 8458)

KAV 205
ENGINE INSTRUMENTS (6CR)
Prerequisite: KAV 100
This course provides a review of engine systems through the analysis of related instruments and control systems. Engine fire protections also will be covered. 4 hrs. lecture, 4 hrs. lab/wk. (KAV 8468)

KAV 206
AIRFRAME THEORY SURVEY (6CR)
Prerequisite: KAV 100
In this review of airframe theory courses, emphasis is on areas of difficulty. 4 hrs. lecture, 4 hrs. lab/wk. (KAV 8459)

KAV 209
SEMINAR IN POWER PLANT MAINTENANCE (4CR)
Prerequisites: KAV 100, KAV 101, KAV 103, KAV 105, KAV 107, KAV 109, KAV 201, KAV 205
This is a review of theory and laboratory experiences in previous power plant courses. 3 hrs. lecture, 3 hrs. lab/wk. (KAV 8469)

KAV 210
SEMINAR IN AIRFRAME MAINTENANCE (4CR)
Prerequisites: KAV 100, KAV 102, KAV 104, KAV 106, KAV 108, KAV 200, KAV 204, KAV 206
This is a review of theory and laboratory experiences presented in previous airframe courses. 3 hrs. lecture, 3 hrs. lab/wk. (KAV 8460)

KAV 240
SHOP AND PERSONNEL MANAGEMENT (8CR)
Prerequisite: A & P license and approval of instructor Management and leadership techniques in aviation maintenance will be addressed.

KAV 242
POWER PLANT PRACTICAL REVIEW (1CR)
Prerequisite: FAA approval for taking the power plant exam
This is a review of instruction in the common projects required of the aviation maintenance technician. 2½ hrs. lab/wk. for 8 wks.

KAV 243
AIRFRAME PRACTICAL REVIEW (1CR)
Prerequisite: FAA approval for taking the airframe exam
This review will help students prepare to take the FAA oral and practical examinations. It covers most common airframe shop practices and procedures. 2½ hrs. lab/wk. for 8 wks.

BIOLOGY

Biol. 120
LIFE SCIENCE (4CR)
Audio-visual materials, laboratory experiments and lecture sessions will be used in this class to study the principles of living organisms including plants and animals. 6 hrs. class/lab/wk. (NLS 6540)

Biol. 122
PRINCIPLES OF BIOLOGY (3CR)
Students will explore selected concepts and principles important to an understanding of how biological systems operate. They also will examine the world of both plants and animals. 3 hrs./wk. (NLS 5020)

Biol. 123
PRINCIPLES OF BIOLOGY LAB (1CR)
Corequisite: BIOL 122 or equivalent
This introductory lab focuses on the structures and functions of plants and animals. 3 hrs./wk., once a wk. (NLS 5091)

Biol. 125
GENERAL BOTANY (5CR)
In this introduction to plant structure and function, students will explore the life cycles and evolution of plants. 3 hrs. lecture, 4 hrs. lab/wk. (NLS 5402)

Biol. 127
GENERAL ZOOLOGY (5CR)
This is a survey of the life, structure and growth of animals. Students will concentrate on identifying animals by their structural characteristics and will look at the role adaptation plays in anatomical and physiological features. 3 hrs. lecture, 4 hrs. lab/wk. (NLS 4241)

Biol. 130
ENVIRONMENTAL SCIENCE (3CR)
Students will study the human population's impact on the environment. Topics will include population, air and water pollution, land use and energy. 3 hrs./wk. (NLS 6719)

Biol. 131
ENVIRONMENTAL SCIENCE LAB (1CR)
Corequisite: BIOL 130
In this lab, students will sample the local environment for air, water and noise pollution. Field trips will include visits to local industries, a water treatment plant and a sewage treatment plant to observe pollution control. 2 hrs. class/wk. plus up to 5 field trips. (NLS 4720)

Biol. 140
HUMAN ANATOMY (4CR)
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 region. 6 hrs. lecture-lab/wk. (NLS 1128)

If you are entering the Nursing or Dental Hygiene programs, you must submit your ACT scores.
BIOL 144
HUMAN ANATOMY AND PHYSIOLOGY (5CR)
Students will study the relationship of structure to function in the organ systems of the human body. Emphasis will be on the location of anatomical features and their functions. 3 hrs. lecture, 4 hrs. lab/wk. (NLS 6186)

BIOL 146
GENERAL/HEAD AND NECK ANATOMY (4CR)
Corequisites: DHYG 121 and DHYG 125
The cells, tissues and organ systems of the body will be examined with emphasis on the head and neck. Students will discuss and analyze each region of the body and the embryology of the head and neck. 3 hrs. lecture, 3 hrs. lab/wk. (NLS 5057)

BIOL 150
BIOLOGY OF ORGANISMS (5CR)
Prerequisite: BIOL 120 or BIOL 122 and BIOL 123
Phyla of 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. (NLS 6641)

BIOL 205
GENERAL GENETICS (3CR)
Hereditity and variation of plants and animals will be studied including classical and molecular genetics. 3 hrs./wk. (NLS 4248)

BIOL 210
PATHOPHYSIOLOGY (4CR)
This introduction to the physiology of disease covers common disorders of the body from the cellular level to the systemic level. Topics include causes, symptoms, diagnostic tests and treatments of disease. 4 hrs./wk. (NLS 1037)

BIOL 225
HUMAN PHYSIOLOGY (4CR)
Prerequisite: CHEM 122
The physical and chemical processes of human cells, tissues, organs and systems will be studied. Living organisms and physiological tools will be used to demonstrate the principles of general physiology. 6 hrs. lecture/lab/wk. (NLS 1144)

BIOL 230
MICROBIOLOGY (3CR)
Prerequisite: CHEM 122 or one year of high school chemistry
Microorganisms — their cell structure, physiology, antimicrobial agents, immunology and host-parasite relationships — will be studied. 3 hrs./wk. (NLS 5593)

BIOL 231
MICROBIOLOGY LABORATORY (2CR)
Corequisite: BIOL 230
Students will concentrate on growing and identifying microorganisms. They will perform experiments to test the organisms' response to various environmental conditions. 4 hrs./wk. (NLS 6057)

BIOL 235
GENERAL NUTRITION (3CR)
Corequisite: BIOL 225
Students will study the source and purpose of essential nutrients, evaluate various diets and explore the role diet plays in preventing disease. 3 hrs./wk. (NLS 6152)

BIOL 240
GENERAL PHARMACOLOGY (3CR)
Prerequisite: BIOL 225
This is a study of drugs — how they work, what they do, what effects they cause. 3 hrs./wk. (NLS 1264)

BIOL 298
SPECIAL TOPICS IN BIOLOGY:
SOUTHWESTERN FIELD COURSE (4CR)
Students will travel through varied environments of the southwestern United States to observe and study the field biology of each area. Course includes pre-trip lectures in addition to the three-week field trip. (NLS 4914)

BIOL 299
YUCATAN FIELD COURSE:
NATURAL HISTORY (3CR)
This travel-for-credit course consists of on-campus pre-departure seminars as well as two weeks spent in Mexico. The class is an introduction to natural history, flora and fauna of selected geographical locations of the Yucatan Peninsula. Course includes pre-trip lectures in addition to the two-week trip. (NLS 3593)

BIOMEDICAL EQUIPMENT TECHNOLOGY

BMT 210
BIOMEDICAL EQUIPMENT TECHNOLOGY I (4CR)
Prerequisites or corequisites: ANAT 144, ELEC 225, ELEC 230
Topics include special electrical circuits used in biomedical equipment, use of electronics in the health care field, microshock and electrical safety testing. 3 hrs. lecture, 3 hrs. lab/wk. Fall. (EMT 7975)

BMT 211
BIOMEDICAL EQUIPMENT TECHNOLOGY II (3CR)
Prerequisite: BMT 210
Students will have access to actual biomedical equipment as they study specific repair and maintenance problems. 2 hrs. lecture, 3 hrs. lab/wk. Spring. (EMT 9824)
BUSINESS ADMINISTRATION

BUS 120
MANAGEMENT ATTITUDES AND MOTIVATION (3CR)
Emphasis is on self-improvement techniques, conflict resolution and respect for individual differences. Students will take part in discussions, group projects and role-playing. Class meets for 48 hours. (BUS 4029)

BUS 121
INTRODUCTION TO BUSINESS (3CR)
This introductory course covers among other topics business organization and management; multinational character of business; and the responsibility of business, government and consumers for improving the environment. 3 hrs./wk. (BUS 4282)

BUS 123
PERSONAL FINANCE (3CR)
Topics include money management; consumer credit; savings instruments; compound interest; buying and selling real estate; and insurance among a variety of others. 3 hrs./wk. (BUS 2259)

BUS 124
GENERAL INSURANCE (3CR)
In this course, students will review all lines of insurance. The course has been coordinated with the Insurance Institute of America. 3 hrs./wk. (BUS 1390)

BUS 125
SAVINGS AND INVESTMENTS (3CR)
This course explains investment techniques and procedures, savings and investment media and tools for financial planning. 3 hrs./wk. (BUS 6038)

BUS 128
TRANSPORTATION RATES I (3CR)
Motor carrier tariffs and rates will be looked at in detail in this introduction to motor carrier transportation. 3 hrs./wk. (BUS 4127)

BUS 129
TRANSPORTATION RATES II (3CR)
The student will be introduced to Midwest Motor Freight Bureau Tariff 125 and MWB 226 (commodities). 3 hrs./wk. (BUS 4128)

BUS 130
INTRODUCTION TO INTERNATIONAL BUSINESS (3CR)
Accounting, finance, management and marketing in the international scene will be discussed. 3 hrs./wk. (BUS 4243)

BUS 140
PRINCIPLES OF SUPERVISION (3CR)
This class will cover supervision of employees including the planning, organizing and directing of non-management personnel. 3 hrs./wk. (BUS 5360)

BUS 141
PRINCIPLES OF MANAGEMENT (3CR)
Emphasis will be on the behavioral aspects of modern management, MBO/MBR and planning, organizing, directing and control. 3 hrs./wk. (BUS 7822)

BUS 150
BUSINESS COMMUNICATIONS (3CR)
Prerequisite: ENGL 121
Emphasis will be on writing clear and concise business letters, memos and reports. 3 hrs./wk. (BUS 1007)

BUS 221
PRINCIPLES OF INSURANCE (3CR)
Prerequisite: BUS 121 and BUS 123
This course will explain insurance terminology and review the major categories such as life, health, property and liability. The course has been coordinated with the Insurance Institute of America. 3 hrs./wk. (BUS 1446)

BUS 230
MARKETING (3CR)
In this study of marketing, emphasis is on the problems and policies of manufacturers, wholesalers and retailers in the distribution of goods and services. 3 hrs./wk. (BUS 7007)

BUS 243
PERSONNEL MANAGEMENT (3CR)
This is a study of the personnel function as an integral part of management. Topics include personnel planning, recruitment, selection, training, and development, compensation, benefits, personnel evaluation and equal opportunity. 3 hrs./wk. (BUS 2341)

THE WOMEN'S RESOURCE DIREC-
TORY, a list of area resources for women, is available through the Adults Unlimited program.
BUS 251
BUSINESS LAW I (3CR)
This is an introduction to the American legal system, business tort, crimes, contracts and uniform commercial code as applied to sales and negotiable instruments. A case study method will be used. 3 hrs./wk. (BUS 1121)

BUS 263
BUSINESS LAW II (3CR)
Prerequisite: BUS 261
Topics include agency, partnership, property, insurance, corporations and secured transactions. A case study method will be used. 3 hrs./wk. (BUS 5134)

BUS 271
MANAGEMENT SEMINAR I (3CR)
Prerequisite: BUS 141
In this course on advanced management, emphasis is on management decision making using both computerized and non-computerized management simulations. 3 hrs./wk. (BUS 5461)

BUS 298
BUSINESS IN JAPAN (3CR)
In this travel-for-credit course, students will take part in seminars on campus before traveling to Japan where they will visit factories and other business-related agencies. 52 lecture hours. (BUS 5361)

BUSINESS DATA PROCESSING

DP 110
INTRODUCTION TO COMPUTERS (2CR)
This television course features a survey of electronic data processing, computer hardware and software systems and developments that will provide the student with a background in information processing. 2 hrs. lecture/wk. (BDP 6175)

DP 124
BUSINESS DATA PROCESSING (3CR)
In this non-technical course, students study computer concepts, terminology and applications. Students will use a microcomputer as they practice writing and running computer programs. 3 hrs./wk. (BDP 7135)

DP 126
PROGRAMMING LOGIC (2CR)
The fundamental concepts of problem solving and developing programming logic will be introduced. The class will present the fundamental tools and techniques of programming. 2 hrs. lecture/wk.

DP 128
FUNDAMENTALS OF BASIC (3CR)
This technical course concentrates on the BASIC programming language with emphasis on the microcomputer. This course is not a substitute for PROGRAMMING FUNDAMENTALS. 3 hrs./wk. (BDP 4049)

DP 132
BASIC FOR ENGINEERING TECHNOLOGY (3CR)
Prerequisite: MATH 133
Students will become acquainted with computer capabilities. The class presents BASIC language using the computer to solve academic and non-academic problems in science and engineering. 3 hrs. lecture/wk.

DP 134
PROGRAMMING FUNDAMENTALS (4CR)
This technical course focuses on the skills students need to enroll in any programming language course. Topics include computer concepts and application, flowcharting, numbering systems and writing and running BASIC programs on a microcomputer. 3 hrs./wk. Lab by arrangement. (BDP 6699)

DP 137
ADVANCED BASIC (4CR)
Prerequisite: DP 132 or DP 134
Students will review introductory techniques and explore menus, multi-dimensional arrays, subroutine, advanced branching techniques, graphics and file accessing techniques including sequential, random and indexed access methods. Emphasis will be on systematic approach to solving problems using BASIC. 3 hrs. lecture, 2 hrs. lab/wk.

DP 140
EDITOR (1CR)
Prerequisite: DP 134
In this introductory course, students will focus on using an EDITOR to create and manipulate files on a computer. They also will submit a computer program for execution. 3 hrs./wk. for three weeks. (BDP 5105)

DP 145
ASSEMBLER LANGUAGE FOR MICROCOMPUTERS (4CR)
Prerequisite: DP 134
Students will study the use of assembler language for a microcomputer in solving typical problems. Emphasis will be on assembler statements, hardware architecture and system services and the use of microcomputers in assembling, linking and executing programs. 3 hrs. lecture/wk. Lab by arrangement.

DP 148
COBOL I (4CR)
Prerequisite: DP 134 and DP 140. DP 140 may also be taken as a corequisite
Students will study the use of COBOL programming language. Emphasis will be on function and use of statements in the four divisions of ANSI COBOL. 3 hrs./wk. Lab by arrangement. (BDP 4700)

For word processing courses, see information on Word Processing.
ASSEMBLER LANGUAGE I (4CR)
Prerequisite: DP 134 and DP 140. DP 140 may be taken as a corequisite. It is recommended this class be taken after COBOL I.
Students will use Assembler language to solve typical problems. 3 hrs./wk. Lab by arrangement. (BDP 1698)

PASCAL FOR MICROS (4CR)
Prerequisite: DP 134
Students will study the PASCAL language, its use in solving typical business problems and principles of programming style. Emphasis will be on the control structures and data typing facilities available in PASCAL. Additional time will be spent on the EDITOR. 2 hrs. lecture, 1 hr. lab/wk. (BDP 4723)

RPG II BEGINNING (4CR)
Prerequisite: DP 134 and DP 140. DP 140 may be taken as a corequisite
Students will look at the use of various approaches to RPG II problem solving. Topics include defining, coding, testing, debugging and documenting RPG II programs. Control levels and subroutines are covered. 3 hrs./wk. Lab by arrangement. (BDP 7683)

FORTRAN (4CR)
Prerequisite: MATH 116 and DP 140. DP 140 may be taken as a corequisite
The course focuses on the use of FORTRAN programming language to solve typical problems. Emphasis is on the vocabulary and grammar of ANSI FORTRAN. 3 hrs./wk. Lab by arrangement. (BDP 6703)

TELEPROCESSING (3CR)
Prerequisite: DP 134
Teleprocessing is a form of information handling in which a data processing system utilizes communication equipment. This class will be concerned with that part of the system external to the central computer. 3 hrs./wk. Fall. (BDP 7224)

PASCAL (4CR)
Prerequisite: DP 148 or DP 150.
This course will cover the use of PASCAL programming language in solving typical problems. Emphasis will be on the function and use of statements in writing structured code. 3 hrs./wk. Lab by arrangement. (BDP 4023)

OS/VS JOB CONTROL LANGUAGE (3CR)
Prerequisite: DP 148 or DP 150
Students will study the use of OS/VS JCL and typical applications. Emphasis will be on Rules of Coding JCL, preparing programs, passing parameters and overriding statements. 3 hrs./wk. (BDP 6006)

DATA FILE MANAGEMENT (3CR)
Prerequisite: Two of the following: DP 148, DP 150, DP 156, DP 158
Students will gain work experience in the comprehensive coverage of data management techniques. Discussion will cover data items in relation to records, files and data bases; query languages; techniques and potential users of data base systems in industry and business. In addition, concepts will be integrated into the development of an inquiry data base. 3 hrs./wk. (BDP 1036)

INTRODUCTION TO SYSTEM DESIGN AND ANALYSIS (3CR)
Prerequisites: One of the following: DP 148, DP 158, DP 150, DP 156
Students will study basic philosophy and techniques in developing and using business information systems. Emphasis will be on the human element and the people involvement necessary in systems design and implementation. The course addresses the use of specific technical approaches available in relation to information processing. 3 hrs./wk. (BDP 4551)

COBOL II (4CR)
Prerequisite: DP 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 will also study sort and report Writer features. 3 hrs./wk. Lab by arrangement. (BDP 1702)

ASSEMBLER LANGUAGE II (4CR)
Prerequisite: DP 150
Advanced features of Assembler language for IBM 370 will be covered. Topics include Macros, subprograms, table handling, file access and complete set of ALC instructions. 3 hrs./wk. Lab by arrangement. (BDP 1684)

CUSTOMER INFORMATION CONTROL SYSTEM COMMAND LEVEL COBOL (4CR)
Prerequisite: DP 248
This is an introduction of command level CICS using COBOL languages. The class will cover the 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, temporary storage and transient data. Debugging on the transaction level will be discussed. 3 hrs. lecture, 2 hrs. lab/wk.

The JCCC Center for Local History promotes interest in history and cooperation among local historical societies and agencies.
JCCC reserves the right to cancel, combine or divide classes; to change the time, date or place of meeting; to change instructor assignments, and to make other revisions without incurring obligation.

DP 256
RPG II ADVANCED (4CR)
Prerequisite: BDP 156
The advanced features of the RPG II language will be explored. Topics include disk file techniques, disk utilities, tables and array methodology and sequential, indexed and direct access methods. 3 hrs./wk. Lab by arrangement. (BDP 5832)

DP 258
OPERATING SYSTEMS (3CR)
Prerequisite: DP 150 or DP 148
The basic concepts and principles of a digital computer operating system are explained. Also explored through a study of a typical digital computer operating system are the relationships between hardware and software. 3 hrs./wk. (BDP 6451)

DP 260
DATA BASE MANAGEMENT (4CR)
Prerequisites: Two of the following: DP 148, DP 150, DP 248, DP 248, DP 250
Corequisite: DP 258
Students will focus on the academic and commercial applications of three data base models. Discussion will cover underlying theories and commercially-available examples of each model and its query/data manipulation language. 3 hrs. lecture, 2 hrs. lab/wk.

DP 262
APPLICATION PROGRAMMING: APPLICATIONS (2-3CR)
Prerequisite: Permission of division director;
Corequisite: One of the following: DP 148, DP 150, DP 156, DP or DP 158
This class consists of computer operations or directly related work experience. A minimum of 15 hours of supervised on-the-job training a week or recognition and formalization of experience for those already employed is required. Hours by arrangement. Fall. (BDP 3868)

DP 264
APPLICATION PROGRAMMING: DATA PROCESSING TOPICS (2-3CR)
Prerequisite: Permission of division director;
Corequisite: One of the following: DP 148, DP 150, DP 156 or DP 158
This class consists of programming or directly related work experience. A minimum of 15 hours supervised on-the-job training a week or recognition and formalization of experience for those already employed is required. Hours by arrangement. Spring. (BDP 3869)

CHEM 124
GENERAL CHEMISTRY I LECTURE (4CR)
Corequisite: MATH 160 and 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. (NPS 4515)

CHEM 125
GENERAL CHEMISTRY I LAB (1CR)
Corequisite: CHEM 124
Students will concentrate on bonding concepts, solutions, gas laws and stoichiometry in laboratory experiments. 3 hrs./wk. (NPS 4516)

CHEM 127
INTRODUCTION TO QUANTITATIVE ANALYSIS (5CR)
Prerequisite: CHEM 131 and CHEM 132
This is an introduction to the concepts of acid-base, chromatography, coulometry, equilibrium, oxidation-reduction and spectro-photometry as they apply to quantitative chemical analysis. The lab will introduce modern quantitative experimental techniques. 3 hrs. lecture, 6 hrs. lab/wk. (NPS 5537)

CHEM 131
GENERAL CHEMISTRY II LECTURE (4CR)
Prerequisites: CHEM 124 and CHEM 125
Corequisite: CHEM 132
In this continuation of CHEM 124, topics include kinetics, acid-base chemistry, equilibrium, chemical thermodynamics and electro-chemistry. 4 hrs./wk. (NPS 4455)

CHEM 132
GENERAL CHEMISTRY II LAB (1CR)
Prerequisite: CHEM 125
Corequisite: CHEM 131
The laboratory consists of experiments supportive to GENERAL CHEMISTRY II LECTURE with emphasis on quantitative techniques. 3 hrs./wk. (NPS 4456)

CHEM 140
PRINCIPLES OF ORGANIC CHEMISTRY (5CR)
Prerequisite: CHEM 122 or CHEM 131
Nomenclature, theory and applications of basic organic chemistry will be covered. Functional group reactions will lead into a study of carbohydrates, proteins, lipids and other biochemical topics. 4 hrs. lecture, 3 hrs. lab/wk. (NPS 2650)

CHEM 220
ORGANIC CHEMISTRY I (5CR)
Prerequisites: CHEM 131 and CHEM 132
Electronic theories and reaction mechanisms will be the focus of this course. Students will work on techniques in the lab and will prepare representative compounds. 9 hrs./wk. Fall. (NPS 2637)
COMMERCIAL ART

CA 130
BASIC REPRESENTATION I (3CR)
Prerequisite: CA 130
In this introduction to representational drawing, emphasis is on techniques of visual analysis and the accurate rendering of structure in terms of both line and value. 6 hrs./wk. (HCA 6862)

CA 131
BASIC REPRESENTATION II (3CR)
Prerequisite: CA 130
In this continuation of BASIC REPRESENTATION I, students will explore the tools, materials, techniques and processes used by the professional illustrator. 6 hrs./wk. (HCA 5863)

CA 133
LETTERING (3CR)
This is a study of the development and evolution of letter forms, hand-lettering techniques and the principles and practices of typographic design. 6 hrs./wk. (HCA 7205)

CA 221
LAYOUT (3CR)
Prerequisite: ART 124 and CA 133
In this introduction to advertising layout, information and techniques necessary for the effective composition of verbal and visual messages designed for publication will be the focus. 6 hrs./wk. (HCA 1861)

CA 224
VISUAL COMMUNICATIONS I (4CR)
Prerequisite: Approval of division director
This is an exploration of the scope and potential of graphic design as a vehicle for communication. Major areas of work include identity systems and corporate image-building through photographs, hand graphics and typography. 8 hrs./wk. (HCA 1689)

CA 225
VISUAL COMMUNICATIONS II (4CR)
Prerequisite: CA 224
In this continuation of VISUAL COMMUNICATIONS I, focus is on the utilization of the student's total design capability and technical knowledge in solving problems of professional scope and complexity. 8 hrs./wk. (HCA 9689)

CA 233
VISUAL TECHNOLOGY I (4CR)
Prerequisite: CA 221
Production methods, techniques and skills necessary for the preparation of camera-ready art required for graphic reproduction will be introduced. 8 hrs./wk. (HCA 4679)

CA 234
VISUAL TECHNOLOGY II (4CR)
Prerequisite: CA 233
In this continuation of VISUAL TECHNOLOGY I, students will apply production skills to problems of professional scope and complexity. 8 hrs./wk. (HCA 6688)

CA 241
AIRBRUSH TECHNIQUES (3CR)
Prerequisite: CA 131
This is an introduction to airbrush techniques and materials as used in both fine and commercial art. 6 hrs./wk. (HCA 8853)

CA 250
PREPARATION OF PORTFOLIO (2CR)
Prerequisite: Approval of division director
The selection, sequencing and presentation of student work for inclusion in a portfolio will be covered along with resume writing and design. 4 hrs./wk. (HCA 7690)

CA 271
COMMERCIAL ART FIELD STUDY (3CR)
Prerequisite: Approval of division director
Students will work about 15 hours a week in an approved professional studio under instructional staff supervision. 2 hrs.class/wk. (HCA 5691)

COMPUTERS: PERSONAL COMPUTER APPLICATIONS

CPCA 120
INTRODUCTION TO MICROCOMPUTERS: BASIC PROGRAMMING (3CR)
This elementary programming course in BASIC utilizes Apple II and IBM PC microcomputers. Programming topics include subscripted variables, two-dimensional arrays and the use of a printer. 2 hrs. class, 2 hrs. lab/wk. (CLC 3658)

CPCA 130
MICROCOMPUTING: BASIC PROGRAMMING AND DATA FILES (4CR)
This beginning course in BASIC concentrates on programming fundamentals and the use of data files. Programming commands up through data files and graphics are stressed along with the use of these skills in writing programs for small businesses, education, data management, research projects or the home. 3 hrs. lecture, 2 hrs. lab/wk. (NS 3082)
CPCA 200
INTRODUCTION TO MICROCOMPUTERS:
ADVANCED PROGRAMMING (3CR)
Prerequisite: CPCA 120 or CPCA 130 or equivalent
Data files and menu programming will be emphasized in the first part of the course. Then several project programs will be assigned on an individual basis. 2 hrs. class, 2 hrs. lab/wk. (CLC 1367)

KADJ 185
PRINCIPLES OF CORRECTIONS (3CR)
Prerequisite: Approval of division director
Topics include the development and philosophy of corrections; ancient codes; medieval justice; development of parole, probation and community treatment. 3 hrs./wk. (SLE 7581)

KADJ 186
CORRECTIONAL PSYCHOLOGY (3CR)
Prerequisite: Approval of division director
In this class, students will study psychological theories of crime and delinquency, diagnostic approaches used in correctional settings, psychopathology, classification procedures and individual and group counseling. 3 hrs./wk. (SLE 7582)

KADJ 188
THEORY OF CHILD CARE WORK IN
RESIDENTIAL TREATMENT (3CR)
Prerequisite: Approval of division director
The role of the child care worker will be explored in this course along with basic theory of treatment, organizational structure and problem-solving skills. 3 hrs./wk. (SLE 7583)

KADJ 191
CORRECTIONS IN THE COMMUNITY (3CR)
Prerequisite: KADJ 185 and approval of division director
This course will cover community correctional programs, diversion, half-way programs, pre-release centers, group homes, probation and parole. The community support needed for these programs also will be discussed. 3 hrs./wk. (SLE 7580)

KADJ 192
CORRECTIONAL ADMINISTRATION (3CR)
Prerequisite: KADJ 185 and approval of division director
This survey of management patterns in correctional agencies covers management by objectives and accountability; public relations; training; budgeting; record keeping; and custody and treatment classifications. 3 hrs./wk. (SLE 7587)

KADJ 193
METHODS OF INTERACTING WITH
EMOTIONALLY-SENSITIVE CHILDREN (3CR)
Prerequisite: KADJ 188
Students will discuss the goals and needs of children, especially emotionally-sensitive children. Topics include selecting, implementing and evaluating procedures for dealing with these children. 3 hrs./wk. (SLE 7584)

KADJ 194
INTERNSHIP IN CORRECTIONS I (3CR)
Prerequisite: KADJ 185 and approval of division director
This internship provides on-the-job training in corrections. 15 hrs./wk. (SLE 7585)

KADJ 281
INTERNSHIP IN CORRECTIONS II (3CR)
Prerequisite: KADJ 185, KADJ 194 and approval of division director
This internship provides on-the-job training in corrections. 15 hrs./wk. (SLE 7586)

DENTAL ASSISTING

KDA 151
FUNDAMENTALS OF DENTISTRY I (5CR)
Prerequisite: Admission to Dental Assisting Program
This class introduces the student to the functions of the dental health team and the scope of service of the dental assistant. Others areas covered include histology, embryology, dental materials and the manipulation of dental materials in a laboratory procedure. 7 hrs./wk. (NDA 2041)

KDA 152
FUNDAMENTALS OF DENTISTRY II (4CR)
Prerequisite: KDA 151
In this introduction to patient psychology, emphasis will be on maturation, emotion and personality, fundamentals of dental radiography, techniques of dental radiographs and the use of dental materials. 6 hrs./wk. (NDA 1044)

KDA 153
FUNDAMENTALS OF DENTISTRY III (4CR)
Prerequisites: KDA 152 and KDA 160
The student will record and maintain accurate dental records, identify and describe dental diseases and study concepts and perform techniques related to chairside assisting. 6 hrs./wk. (NDA 2855)

KDA 154
FUNDAMENTALS OF DENTISTRY IV (3CR)
Prerequisite: KDA 153
The student will identify drugs associated with dental treatment, demonstrate usage, care and dosage of medicine. Emphasis will be on the Dental Code of Ethics and the application of business administration principles to the dental office. 3 hrs./wk. (NDA 5048)
KDA 160
PRECLINICAL PRACTICE (4CR)
Prerequisite: KDA 152
Students will participate in the orientation and identification of the various operative procedures including chairside assisting, instrumentation and maintenance of equipment. The course includes a special study of the expanded functions governed by the Missouri Dental Practice Act. 5 hrs./wk. (NDA 1052)

KDA 161
CLINICAL PRACTICE I (3CR)
Prerequisite: KDA 152 and KDA 160
Students will have the opportunity to adapt and apply techniques and knowledge covered in the classroom to the clinical environment. All operative and specialty procedures will be evaluated. 10 hrs./wk. By arrangement (NDA 1047)

KDA 162
CLINICAL PRACTICE II (5CR)
Prerequisite: KDA 161
The student will receive advanced training in dental operative and specialty procedures including performance evaluations. 15 hrs./wk. By arrangement (NDA 6050)

DENTAL HYGIENE

DHYG 121
CLINICAL DENTAL HYGIENE I (6CR)
Prerequisite: Admission to Dental Hygiene Program
Corequisites: BIOL 146, CHEM 122, DHYG 125
This course includes an introduction to the dental hygiene profession, dental hygiene techniques, the principles of instrumentation, patient evaluation, patient education and primary preventive treatment, auxiliary procedures and aseptic techniques. 2 hrs. lecture, 11 hrs. lab/wk. (NDH 7252)

DHYG 125
DEVELOPMENTAL DENTISTRY (3CR)
Corequisites: BIOL 146, CHEM 122, DHYG 121
This course includes a study of embryology; oral histology; developmental disturbances of the face, oral cavity and related structures; and the study of dental morphology and occlusion. 3 hrs. lecture, 1 hr. lab/wk. (NDH 7253)

DHYG 140
CLINICAL DENTAL HYGIENE II (5CR)
Prerequisites: DHYG 121, DHYG 125, BIOL 146, CHEM 122 and no grade below a “C”
Corequisites: DHYG 142, BIOL 235, BIOL 120, DHYG 146, DHYG 148
Focus will be on the clinical application of dental hygiene techniques, instrumentation skills, oral physiotherapy, patient motivation and education techniques, dietary analysis and nutritional counseling. Procedures for medical and dental emergencies in the dental office also will be covered. 2 hrs. lecture, 8 hrs. clinic/wk. (NDH 7254)

DHYG 142
DENTAL RADIOLOGY (2CR)
Prerequisites: DHYG 121, DHYG 125, BIOL 146, CHEM 122 and no grade below a “C”
Corequisites: DHYG 140, BIOL 235, BIOL 120, DHYG 146, DHYG 148
This class concentrates on the theory and clinical practice of exposing, processing, mounting and evaluating oral radiographs with emphasis on radiation protection for patient and operator. 1 hr. lecture, 3 hrs. lab/wk. (NDH 6266)

DHYG 146
PERIODONTICS (1CR)
Prerequisites: DHYG 121, DHYG 125, BIOL 146, CHEM 122 and no grade below a “C”
Corequisites: DHYG 142, BIOL 235, BIOL 120, DHYG 140, DHYG 148
This is a study of the inflammation process, its relationship to periodontal disease, recognition of the etiology, signs and symptoms of periodontal disease. 1 hr. lecture/wk. (NDH 7255)

DHYG 148
DENTAL HEALTH EDUCATION (1CR)
Prerequisites: DHYG 121, DHYG 125, BIOL 146, CHEM 122 and no grade below a “C”
Corequisites: BIOL 225, BIOL 235, DHYG 146, DHYG 140, DHYG 142
Students will study health education methods for individuals and groups, with special emphasis on psychological, social and economic factors. 2 hrs. lab/wk. (NDH 7256)

DHYG 221
CLINICAL DENTAL HYGIENE III (7CR)
Prerequisites: DHYG 148, DHYG 121, DHYG 140, BIOL 146, DHYG 125, DHYG 146, BIOL 225, CHEM 122 and no grade below a “C”
Corequisites: DHYG 225, DHYG 230, DHYG 240, DHYG 235
Students will continue to work on techniques including preparation and application of dental hygiene treatment plans. 2 hrs. lecture, 16 hrs. clinic/wk. (NDH 7257)

DHYG 225
PATHOLOGY AND PERIODONTOLOGY (3CR)
Prerequisites: DHYG 121, DHYG 140, BIOL 146, DHYG 142, DHYG 125, DHYG 146, DHYG 148, BIOL 225, BIOL 235, and no grade below a “C”
Corequisites: DHYG 221, DHYG 230, DHYG 240, DHYG 235
Included in this course is a description of periodontal treatment and therapy with emphasis on root planing and soft tissue curettage. Also covered will be basic pathological processes and identification of common oral conditions, their etiology and treatment. 3 hrs. lecture/wk. (NDH 7258)
DHYG 230
DENTAL THERAPEUTICS (3CR)
Prerequisites: DHYG 148, DHYG 121, DHYG 140, BIOL 146, DHYG 142, DHYG 125, DHYG 146, BIOL 225, BIOL 235, CHEM 122 and no grade below a "C".
Corequisites: DHYG 225, DHYG 221, DHYG 230, DHYG 235.
This course will introduce the basic principles of drug actions emphasizing dental-related therapeutics and drugs associated with common system disorders; information on the selection of professional products; and principles necessary in administering local anesthesia. 3 hrs. lecture wk.; 1 hr. lab/wk. for 8 wks. (NDH 7259)

DHYG 235
DENTAL MATERIALS (2CR)
Prerequisite: DHYG 121, DHYG 140, BIOL 146, DHYG 142, DHYG 125, DHYG 148, DHYG 146, BIOL 225, BIOL 235, CHEM 122 and no grade below a "C".
Corequisites: DHYG 221, DHYG 225, DHYG 230, DHYG 240.
Students will study restorative, prosthetic and preventive materials and their use. 1 hr. lecture, 3 hrs. lab/wk. (NDH 5250)

DHYG 240
COMMUNITY DENTAL HEALTH (2CR)
Prerequisites: DHYG 121, DHYG 140, BIOL 146, DHYG 142, DHYG 125, DHYG 148, DHYG 146, BIOL 225, BIOL 235, CHEM 122 and no grade below a "C".
Corequisites: DHYG 221, DHYG 225, DHYG 230, DHYG 235.
Topics include public health agencies; statistical procedures in critiquing scientific literature; identifying dental needs of different groups; and planning dental health education programs in schools. Field experience included. 1 hr. lecture, 3 hrs. lab/wk. (NDH 7260)

DHYG 250
CLINICAL DENTAL HYGIENE IV (7CR)
Prerequisites: DHYG 121, DHYG 140, DHYG 221, BIOL 146, DHYG 125, DHYG 148, DHYG 240, DHYG 146, DHYG 226, DHYG 230, DHYG 142, DHYG 235, BIOL 225, BIOL 235, CHEM 122 and no grade below a "C".
This course offers continued development of proficiency in clinical techniques and current procedural practices of the dental hygienist with emphasis on self evaluation. Topics include ethics, office management and current dental hygiene issues. 2 hrs. lecture 16 hrs. clinic/wk. (NDH 7261)

DRAFTING TECHNOLOGY

DRAFTING TECHNOLOGY

DRAFT 121
TECHNICAL ILLUSTRATION (3CR)
Students will work on techniques used by technical illustrators. Topics include conversion of engineering drawings to three-dimensional isometric, dimetric, trimetric and perspective views. 6 hrs. class-lab/wk. Biannually. Fall. (EDT 2297)

DRAFT 123
INTERPRETING MACHINE DRAWINGS (2CR)
Students will work on reading machine drawings from actual production drawings. Topics include orthographic projection, dimensioning, geometric form and tolerancing. 2 hrs./wk. Biannually. Spring. (EDT 4012)

DRAFT 125
INTERPRETATION OF WELDING DRAWINGS (2CR)
This introduction to the interpretation of welding drawings (blueprints) emphasizes view visualization, sectioning, dimensioning, abbreviations and symbols. ANSI and AWS standards will be followed. 2 hrs./wk. Biannually. Fall. (EDT 6016)

DRAFT 127
BUILDING CONSTRUCTION ESTIMATING (3CR)
This is an introduction to the principles of taking-off quantities and cost accounting of building materials as required by construction contractors using working drawings, reference books, tables and C.S.I. Format to perform estimates. 3 hrs./wk. Spring. (EDT 1229)

DRAFT 129
INTERPRETING ARCHITECTURAL DRAWINGS (2CR)
This beginning course explains the fundamentals of interpreting architectural type drawings (blueprints). 2 hrs./wk. Fall. (EDT 4011)

DRAFT 132
TECHNICAL DRAFTING I (5CR)
In this course geared toward preparing students for industry, topics include drafting components and standards, both ANSI and ISO; geometric construction; visualization; first and third orthographic projection; and U.S. and metric measure. 10 hrs. class-lab/wk. Fall. (EDT 5810)

DRAFT 133
TECHNICAL DRAFTING II (5CR)
Prerequisite: DRAFT 132 or permission of program coordinator
Emphasis is on developments, fasteners, geometric form and true position tolerancing. Numerical control (NC), computer-aided drafting (CAD) and computer-aided manufacturing are included. 10 hrs. class-lab/wk. Spring. (EDT 2811)

DRAFT 135
REPROGRAPHICS I (2CR)
Corequisite: DRAFT 132
Topics include reproduction processes and techniques used by industry; diazo-white printing; sepa intermediates; wash-off film; photodrafting; and metal plate making. 4 hrs. class-lab/wk. Fall. (EDT 1813)
DRAF 136
REPROGRAPHICS II (2CR)
Prerequisite: DRAF 135
Students will work on advanced applications of photo reproduction used for documentation; halftones, screening and product photography; use of 35mm, view industrial and process cameras. 4 hrs. class-lab/wk. Biannually. Spring. (EDT 4010).

DRAF 140
PICTORIAL DRAFTING (2CR)
Prerequisite: DRAF 132 or permission of program coordinator
Students will study three-dimensional pictorial views and axonometric, obliques and perspectives. Time-saving devices such as templates, proportional dividers, shading film and photo drafting also will be examined. 4 hrs. class-lab/wk. Spring. (EDT 7812)

DRAF 145
TOOL DESIGN (3CR)
Prerequisite: DRAF 133
Focus will be on problems in the design, construction and operation of dies, jigs and fixtures. 6 hrs. lab/wk. (EDT 7407)

DRAF 150
ELECTRICAL DRAFTING (3CR)
Prerequisites: DRAF 132 or DRAF 261 or permission of program coordinator
Drafting techniques will be applied to lighting, motor controls, power distribution and generation. Emphasis will be on use of tables, catalogs and computer applications as aids, as well as decision making required on electrical drawings. 6 hrs. class-lab/wk. Spring. (EDT 5924)

DRAF 160
PROCESS PIPING (3CR)
Prerequisites: DRAF 132 and DRAF 140 or permission of program coordinator
Students will become familiar with symbols, terminology, specifications, piping fittings and valving relating to process pipe drawings. 6 hrs. class-lab/wk. Fall. (EDT 4014)

DRAF 175
ELECTRONICS DRAFTING (3CR)
Prerequisite: DRAF 132
This course emphasizes the design and drafting techniques involved in the production of electronics industry equipment for consumer and commercial use. Topics include: block diagrams, schematic diagrams, component identification, logic diagrams and printed wiring board drawings. (EDT 1682)

DRAF 180
ARCHITECTURAL/STRUCTURAL DRAFTING (4CR)
Prerequisite: DRAF 132 or DRAF 261 or permission of program coordinator
In this study of commercial architectural structures, students will become familiar with residential construction, structural components, terminology, fabrication and erection drawings. 8 hrs. class-lab/wk. Fall. (EDT 4072)

DRAF 225
CARTOGRAPHY AND LAND SURVEYING (3CR)
Prerequisites: MATH 172 or MATH 133 and DRAF 132
This is an introduction to map drafting and methods of land surveying used by engineering firms. Topics include profiles, map plotting and layout from notes, equipment, record keeping, field problems and computer applications. 6 hrs. class/wk. Spring. (EDT 4015)

DRAF 230
INTRODUCTION TO COMPUTER-AIDED DRAFTING 2-D (3CR)
Prerequisite: One semester of mechanical drafting or permission of program coordinator
Students will focus on computer-aided drafting equipment including graphics terminal digitizer, plotter, microcomputer and drafting tools. 2 hrs. class, 3 hrs. lab/wk. (EDT 1846)

DRAF 231
COMPUTER-AIDED DRAFTING - 3D (3CR)
Prerequisite: DRAF 230
In this continuation of COMPUTER-AIDED DRAFTING 2-D, students will work on expanding their understanding of two-dimensional drafting into three-dimensional drafting and modeling. 2 hrs. class, 3 hrs. lab/wk. (EDT 1847)

DRAF 232
COMPUTER-AIDED DRAFTING APPLICATIONS (3CR)
Prerequisite: DRAF 231

DRAF 261
GRAPHIC COMMUNICATIONS I (2-7CR)
Students may use this course to explore the field of drafting and to determine their abilities. Activities to suit students' interests will be offered. 2 hrs. class-lab/wk. for each credit hour. (EDT 7674)

DRAF 262
GRAPHIC COMMUNICATIONS II (1-7 CR)
Prerequisite: DRAF 261

DRAF 263
GRAPHIC COMMUNICATIONS III (1-7 CR)
Prerequisite: DRAF 262

Enroll early by telephone. For details call the Admissions Office.

Information about scholarships, grants, loans and jobs is available in the Financial Aid Office, first floor, GEB.
DRAF 271
DRAFTING COOPERATIVE
EDUCATION I (2-9CR)
This class may be repeated for a total of nine credit
hours.
Prerequisites: 14 credit hours in drafting and approval
of division director
Students will have the opportunity to gain on-the-job
work experience under the supervision of profes-
sionals in the industry. Students and area employers
and staff will work together to create meaningful job
experiences. 1 hr. lecture, 6-27 hrs. on-the-job
training/wk. (EDT 6460)

DRAF 272
DRAFTING COOPERATIVE
EDUCATION II (2-9CR)
Prerequisite: DRAF 271 and approval of division
director

DRAF 273
DRAFTING COOPERATIVE
EDUCATION III (2-9 CR)
Prerequisite: DRAF 272 and approval of division
director

EDUC 133
INTRODUCTION TO ART THERAPY (3CR)
Prerequisite: PSYC 130
Students will examine the theories and principles of
art therapy through its historical foundation in
psychology and education and the literature of lead-
ing art therapists. Field trips to local art therapy
facilities included. 3 hrs. lecture/wk. (SS 4283)

EDUC 220
SURVEY OF THE EXCEPTIONAL CHILD (3CR)
This is a survey of the exceptionalities now being
served in public schools and the characteristics of
each. Included will be mental retardation; learning
disabilities; behavior and communication disorders;
hearing, visual, physical and health impairments; and
giftedness. 3 hrs./wk. (APP 4451)

EDUC 222
BASIC STRATEGIES FOR SPECIAL
EDUCATION PARAPROFESSIONALS I (1CR)
The education of disabled people — from
kindergarten through adulthood — will be surveyed.
The role of the paraprofessional in various helping
situations will be emphasized. 1 6-hr. session. Outside
readings and a 12-hour practicum are required.
(APP 6184)

EDUC 223
BASIC STRATEGIES FOR SPECIAL
EDUCATION PARAPROFESSIONALS II (1CR)
Prerequisite: EDUC 222
Emphasis is on defining the responsibilities and role of
the paraprofessional in special education programs. 1
6-hr. session. Outside readings and a 12-hour
practicum are required.

ECON 130
BASIC ECONOMICS (3CR)
This course is designed for students planning to take
only one economics course and for those who want a
non-technical introduction to the subject. Topics will
be selected according to the interests of the class.
3 hrs./wk. (BUS 4512)

ECON 230
ECONOMICS I (3CR)
This class will cover supply and demand; national
income determinations; money and banking; mone-
tary and fiscal policy. 3 hrs./wk. (BUS 2253)

ECON 231
ECONOMICS II (3CR)
Prerequisite: ECON 230
Emphasis in this continuation of ECONOMICS I is on
supply and demand, theory of the firm and market
structures. 3 hrs./wk. (BUS 3093)

EDUC 121
INTRODUCTION TO TEACHING (2CR)
Teaching concepts and practices as they apply to
today's elementary and secondary schools will be
introduced. Topics include the roles and responsibil-
ities of the teacher, various modes of instruction,
specialized areas in teaching and professional
requirements and concerns. 20 hrs. observation in a
school setting required. 2 hrs. lecture/wk. (SS 2035)

EDUC 122
CIRCUIT ANALYSIS I (3CR)
Prerequisites: ELEC 120 and MATH 143 or concur-
rent enrollment
Topics include fundamental AC and DC circuit con-
cepts such as Kirchoff's Laws, Ohm's Law, Thvenin's
Theorem, Norton's Theorem, Superposition Theorem
and nodal analysis. 3 hrs./wk. (EET 3409)

EDUC 125
DIGITAL ELECTRONICS I (4CR)
Prerequisite: ELEC 120
This is the first in a three-semester series in digital
electronics. It includes study of binary numbers and
codes, binary arithmetic, logic circuits, arithmetic
circuits, flip-flops and counters. 3 hrs. class, 2 hrs.
lab/wk. (EET 9086)
ELEC 130
ELECTRONIC PRINCIPLES I (3CR)
Prerequisite: ELEC 122 and MATH 144
This is the first in a three-course series in analog electronics. It includes a study of semiconductor theory, diodes, diode circuits, transistors and transistor biasing circuits. 2 hrs. class, 3 hrs. lab/wk. (EET 5586)

ELEC 140
CIRCUIT ANALYSIS II (3CR)
Prerequisites: MATH 144 or concurrent enrollment and ELEC 122
This class focuses on fundamental concepts of AC circuit analysis and transient circuit analysis as applied to circuits containing resistors, capacitors and inductors. 3 hrs./wk. (EET 6029)

ELEC 225
DIGITAL ELECTRONICS II (4CR)
Prerequisite: ELEC 125
This is the second in a three-course series in digital electronics. It includes a study of registers, counters, memories, computer architecture and computer instructions. 3 hrs. class, 2 hrs. lab/wk. (EET 6036)

ELEC 230
ELECTRONIC PRINCIPLES II (3CR)
Prerequisite: ELEC 140 and ELEC 130
This is the second in a three-course series in analog electronics. It includes a study of small signal transistor amplifiers; class A, B and C power amplifiers; field effect transistors; and FET circuitry. 2 hrs. class, 3 hrs. lab/wk. (EET 9826)

ELEC 235
ELECTRONIC PRINCIPLES III (3CR)
Prerequisite: ELEC 230
This is the third course in a three-course series in analog electronics. Topics include integrated circuits, frequency effects in amplifiers, negative and positive feedback, and oscillators. 2 hrs. class, 3 hrs. lab/wk. (EET 4464)

ELEC 240
ELECTRONIC COMMUNICATION SYSTEMS (3CR)
Prerequisite: ELEC 230
This class concentrates on electronic communication systems including AM and FM radio receivers and transmitters, antennas, broadcast stations, television and microwave. 3 hrs./wk. Spring. (EET 2468)

ELEC 245
MICROPROCESSORS (3CR)
Prerequisite: ELEC 230
This is an introduction to the microprocessor and to microprocessor architecture, with emphasis on use of the microprocessor in the lab. 2 hrs. class, 3 hrs. lab/wk. (EET 4503)

EMERGENCY MEDICAL TECHNOLOGY

EMT 121
CPR I - BASIC RESCUER (1CR)
This class offers an overview of cardiovascular and respiratory systems and CPR techniques. Upon successful completion of the course, students will be certified by the American Heart Association as basic rescuers. By arrangement. 20 total classroom hours. (NET 2140)

EMT 125
CPR II - BASIC CPR INSTRUCTOR (1CR)
Prerequisite: Basic Rescuer certification by the American Heart Association and permission of division director or instructor.
Class includes review of CPR I techniques; methodology of teaching; designing and implementing CPR courses; demonstration of mastery performances; mini-lectures. Upon successful completion of the class, students will be certified by the American Heart Association as basic rescuers. 2 hrs./wk. for 8 wks. (NET 2141)

EMT 130
EMERGENCY MEDICAL TECHNICIAN (6CR)
Classroom instruction covers anatomy, physiology, patient assessment and treatment of medical and trauma-related conditions. CPR also will be taught. Students will spend 10 hours observing in the hospital. Upon successfully completing this course, they will meet the prerequisite for taking the EMT State Certificate Examination. 3½ hrs. lecture, 3½ hrs. lab/wk. In addition students will be required to attend approximately 6 Saturday sessions lasting 4 hours each. (These sessions will be announced at the first session.) (NET 4201)

EMT 140
BASIC CARDIOLOGY AND EKG RECOGNITION (2CR)
Prerequisite: Permission of division director or instructor
Topics include basic anatomy, physiology, electrophysiology of the cardiac system, recognition of EKG tracings and an overview of coronary artery disease. 2 hrs./wk. Class limited to 30. (NET 2142)
EMERGENCY MEDICAL
INTENSIVE CARE TRAINING

EMIC 220
EMICT I (10CR)
Prerequisite: Admission to the EMICT program
This fundamental EMICT course covers responsibilities, medical terminology, anatomy and physiology as they apply to the EMICT. Other topics include diagnostic signs and assessment of patients; biomedical communication; venipuncture; medication administration techniques; advanced airway management; managing the cardiac patient; and ECG interpretation. Three 8 hr. days of class/wk., two 24 hr. shifts field experience/mo. for 8 wks. (NET 4204)

EMIC 225
EMICT II (10CR)
Prerequisite: EMIC 220 with a minimum grade of “C”
This fundamental course covers diagnosis, etiology and field treatment of victims of respiratory emergencies and of hypertensive, vascular, diabetic, OB, endocrine or environmental emergencies. Also covered will be the treatment of victims experiencing overdoses or poisoning; or chest, neurological and abdominal trauma, fracture or shock. Three 8 hr. days of class/wk., Two 24 hr. shifts field experience/mo. for 8 wks. (NET 4205)

EMIC 230
EMICT III CLINICALS (12CR)
Prerequisite: EMIC 225 with the minimum grade of “C”
The student will practice diagnostic and treatment skills under supervision in an emergency department, critical care unit, surgery/recovery room, labor/delivery room and a pediatrics unit. Four 8 hr. day or evening shifts/wk. in hospital, two 24 hr. shifts field experience/mo. Some classroom meetings. (NET 4206)

EMIC 271
EMICT IV FIELD INTERNSHIP (10CR)
Prerequisite: EMIC 230 with a minimum grade of “C”
The student will act as an EMICT under supervision with an existing, advanced life-support ambulance service. The student also will present case histories, analyze systematic medical care and evaluate medical care using pre-hospital protocols. First month same as summer. Then 24 hr. shifts internship with Type I unit. Some classroom meetings. (NET 4207)

ENERGY TECHNOLOGY

ENER 121
BASIC PRINCIPLES OF HVAC (4CR)
This class explains function, design, construction features, operation, adjustment, inspection and repair of small-scale residential heating and cooling systems and various commercial refrigeration and air movement systems. 3 hrs. lecture, 3 hrs. lab/wk. (TEN 6541)

ENER 123
ELECTROMECHANICAL SYSTEMS (3CR)
Prerequisite: ENER 121 or permission of instructor
In this introductory electrical course, students will study components and repair and trouble-shooting techniques. Topics range from basic electrical theory to trouble shooting complex dual-compressor split systems. Students will practice applying theory in a lab. This class will be useful to service technicians with a limited background in electricity. 2 hrs. lecture, 3 hrs. lab/wk. (TEN 6539)

ENER 124
RESIDENTIAL HVAC ESTIMATING (2CR)
Prerequisites: ENER 121, ENER 123
Students will concentrate on making interpretations from drawings and specifications and on determining labor costs for the installation of air conditioning, refrigeration and heating systems. Students will be required to make estimates from mechanical plans for specific structures. 2 hrs./wk. (TEN 6570)

ENER 125
ENERGY ALTERNATIVES (3CR)
This class will cover methods of alternate energy production and emphasize the most effective technologies available including wind energy, photoelectric energy, biomass and alternate fuel vehicles. Students will study the impact, by-products and possible problems of each. 3 hrs./wk. (TEN 6547)

ENER 126
RESIDENTIAL HVAC SYSTEMS (3CR)
Prerequisites: ENER 121 and ENER 123
Students will study techniques in maintaining, installing and trouble-shooting air conditioning and heating systems for efficient, constant volume induction, variable volume, multi-zone and dual duct systems. Topics include service problems, combustion testing, control analysis and energy cost comparisons. 2 hrs. lecture, 3 hrs. lab/wk. (TEN 6546)

ENER 128
INSTRUMENTATION AND CONTROL DEVICES (3CR)
Prerequisites: ENER 121 and ENER 123
This course is a study of automatic controls in air conditioning, refrigeration and heating systems. It also will introduce various controls such as flow switches, thermostats, motor controls and float valves. Emphasis will be on commercial and residential facilities. 2 hrs. lecture, 3 hrs. lab/wk. (TEN 6530)

ENER 129
DOMESTIC SOLAR SYSTEMS (3CR)
Topics include design of solar systems for production of heat and electricity; optimum systems for different types of residential structures; active solar components and methods; hybrid systems which combine conventional and solar heating systems. In the labs, students will build actual working systems and models and test for efficiency and energy output. 2 hrs. lecture, 3 hrs. lab/wk. (TEN 6568)
ENER 130
PASSIVE SOLAR FUNDAMENTALS (3CR)
In this study of solar technologies, students will deal with architectural treatments of existing structures including greenhouses; solariums; sun spaces; trombe walls; direct and indirect solar gain; and other solar options. The calculation of expected heat input of various passive solar additions also will be covered. Students will be required to design a home using passive solar applications. 3 hrs./wk. (TEN 6559)

ENER 221
COMMERCIAL SYSTEMS - AIR CONDITIONING (4CR)
Prerequisites: ENER 121, ENER 123 and ENER 128
This is a study of commercial and industrial applications of refrigeration for efficient, economic use. Students will concentrate on central station systems, water chillers, fan and air handling units, packaged systems and absorption systems. Lab exercises will focus on basic repairs, installation and start-up procedures. 3 hrs. lecture, 3 hrs. lab/wk. (TEN 6569)

ENER 222
ADVANCED CONTROL SYSTEMS (3CR)
Prerequisites: ENER 121, ENER 123 and ENER 128
This study of commercial and industrial systems covers electrical controls for motors, advanced electrical wiring diagrams, pneumatic controls and electronic controls. Other topics include installation, calibration and repair of such controls and the use of computers as control devices. 2 hrs. lecture, 3 hrs. lab/wk. (TEN 6553)

ENER 223
COMMERCIAL SYSTEMS: HEATING (4CR)
Prerequisites: ENER 221 and ENER 222 or approval of program coordinator
Students will study hot water and low pressure steam boilers and other large plant heating systems as well as combustion theory and control systems for safe management of gas- and oil-fired equipment. Also studied will be electrical heating systems, efficiency testing and operating engineer requirements. 3 hrs. lab/wk. (TEN 6571)

ENER 224
DIAGNOSIS AND SERVICE PROCEDURES (3CR)
Prerequisites: ENER 121 and ENER 123
Maintaining, installing and trouble-shooting commercial and industrial refrigeration will be the topics of this course. Students will have the opportunity to trouble-shoot and wire control circuits; diagnose malfunctions with testing equipment; and correct malfunctions in commercial and industrial refrigeration units. 2 hrs. lecture, 3 hrs. lab/wk. (TEN 6548)

ENER 226
ENERGY MANAGEMENT (3CR)
Prerequisites: ENER 222 and ENER 223 or permission of program coordinator
Components and systems designed to monitor and curb usage of building utilities will be examined along with simple set-back principles and large computer-managed control systems. Students will study among other topics utility rate structure and demand charges and retrofitting of existing buildings. 2 hrs. lecture, 3 hrs. lab/wk. (TEN 6572)

ENER 271
HVAC COOPERATIVE EDUCATION I (2-9 CR)
Prerequisites: 9 credit hours in JCCC energy courses or approval of division director
Students can gain on-the-job experience under the supervision of professionals in the industry. The student will work with area employers and college staff to create individualized job experiences. 1 hr. lecture, 6-27 hrs. on-the-job training/wk. (TEN 6574)

ENER 272
HVAC COOPERATIVE EDUCATION II (2-9CR)
Prerequisite: ENER 271

ENER 273
HVAC COOPERATIVE EDUCATION III (2-9CR)
Prerequisite: ENER 272

ENER 274
HVAC COOPERATIVE EDUCATION IV (2-9CR)
Prerequisite: ENER 273

ENER 281
SOLAR PROJECT (4CR)
Prerequisite: ENER 130
Students will work with professional equipment in this class on the design and construction of active and passive solar systems. The course will emphasize effective and practical solar designs and systems and include field study experiences. 2 hrs. lecture, 6 hrs. lab/wk. (TEN 6560)

ENGINEERING

ENGR 121
ENGINEERING ORIENTATION (1CR)
In this introduction to several engineering disciplines, students will have the opportunity to meet with professional engineers and engineering faculty members at regional universities. The class includes presentations, field trips, information about current transfer requirements and about scholarships. 1 hr./wk. (EGR 7651)

ENGR 131
ENGINEERING GRAPHICS I (3CR)
The principles of graphics and design processes will be introduced in this class. Topics include interpretation of drawings; interrelation of points, lines and planes; intersections and developments; graphical solutions

To find out the name of a program coordinator, check the Staff Listing in this catalog.

Many credit courses are offered in the evening. Check the Credit Bulletin for class times.
ENGR 132
ENGINEERING GRAPHICS II (3CR)
Prerequisite: ENGR 131
Students will study and apply techniques in detail and assembly drawing; dimensioning; auxiliary view; sectioning and developments. Emphasis will be on creative design processes and visualization. 6 hrs. class-lab/wk. (EGR 2276)

ENGR 141
PROCESSES AND MATERIALS OF MANUFACTURING (3CR)
The principles and theory of producing metal and plastics will be discussed. 3 hrs./wk. (EGR 4661)

ENGR 152
BUILDING MATERIALS AND CONSTRUCTION (3CR)
This is a study of building materials, their properties and how they are used in construction. Also discussed will be construction specifications, building codes, trade association publications and standards. 3 hrs./wk. (EGR 7118)

ENGR 171
PROGRAMMING FOR ENGINEERING AND SCIENCE (4CR)
Prerequisite: MATH 171 or equivalent and DP 140
Students will study and use FORTRAN programming language to develop programming techniques for solving scientific and engineering problems on digital computers. 3 hrs. class wk. Minimum of 3 hrs. lab/wk. by arrangement. (EGR 7724)

ENGR 180
ENGINEERING LAND SURVEYING I (3CR)
Prerequisite or corequisite: MATH 172 or MATH 134 or equivalent
This class explains the basic applications of plane surveying procedures; measurement of horizontal distances, directions, angles, leveling, traversing, curves, stadia coordinates; computations with the aid of a computer; and topographical property and construction surveying. Students will take part in field operations using such equipment as auto levels, theodolites and EDM. 6 hrs. class-lab/wk. (EGR 3169)

ENGR 191
MECHANISMS (3CR)
Prerequisite: ENGR 131
Students will study motion of machine parts and methods of transmission of motion by links, cams, gears and belts. Computer applications included. 6 hrs./wk. (EGR 6198)

CIRCUIT THEORY I (3CR)
Prerequisites: MATH 243 and PHYS 230
Corequisites: MATH 244 and PHYS 260
This course is the first of a two-semester sequence dealing with electrical circuit theory. Students will analyze linear passive electrical circuits. (EGR 3821)

ENGR 231
THERMODYNAMICS (3CR)
Prerequisites: MATH 242, PHYS 220 and CHEM 124
This course is an introduction to the thermodynamic principles and their application to the analysis of energy systems which include various power and refrigeration cycles. 3 hrs. lecture/wk.

ENGR 251
STATICS (3CR)
Prerequisite or corequisite: MATH 241
This class covers vectors, force systems, friction, centroids and moments of inertia. Computer applications will be included. 3 hrs./wk. (EGR 6082)

ENGR 252
MECHANICS OF MATERIALS (3CR)
Prerequisite: ENGR 251
Students will study the theory of simple stress and strains in elastic materials, torsion, beams and columns. Computer applications included. 3 hrs./wk. (EGR 7389)

ENGR 254
DYNAMICS (3CR)
Prerequisites: ENGR 251 and MATH 242 or concurrent enrollment in MATH 242
Topics include unbalanced force systems and the resulting motion, work and energy, impulse, momentum and impact. Computer applications will be include. 3 hrs./wk. (EGR 5517)

ENGR 285
PROJECT LABORATORY (1-4CR)
Prerequisite: ELEC 120 and permission of division director
Students will construct and possibly design equipment as agreed upon with the instructor. By arrangement. (EGR 4580)

ENGR 291
INDEPENDENT STUDY: ENGINEERING (1-7CR)
Prerequisite: Approval of division director
ENGLISH

ENGL 100
ENGLISH AS A SECOND LANGUAGE I (3CR)
Prerequisite: Appropriate assessment score
This course is designed for students who are familiar with English but who have limited speaking skills. The course focuses on pronunciation and listening comprehension as well as basic grammar and sentence structure. 5 hrs./wk. (CEN 1241)

ENGL 101
ENGLISH AS A SECOND LANGUAGE II (3CR)
Prerequisite: ENGL 100 or appropriate assessment score
This course includes continued work in pronunciation, grammar and sentence structure but emphasizes improvement of reading skills. 3 hrs./wk. (CEN 2275)

ENGL 105
FUNDAMENTALS OF ENGLISH (3CR)
Prerequisite: Appropriate assessment score
This course focuses on grammar, usage and mechanics of edited English emphasizing clear, efficient communication in varied sentence patterns. 3 hrs./wk. (CEN 2651)

ENGL 106
INTRODUCTION TO WRITING (3CR)
Prerequisite: ENGL 105 or appropriate assessment score
In this introductory writing course, students will begin with a review of sentence skills then move into writing paragraphs, emphasizing topic selection, organization, development and editing. The course concludes with an introduction to the essay. 3 hrs./wk. (CEN 1000)

ENGL 107
SENTENCE PATTERN SKILLS (1CR)
Students will work at their own pace in reviewing the parts of speech, elements of the sentence and basic sentence patterns. Emphasis will be on diagramming and combining sentences. Class includes individualized tutoring and practice in writing. By arrangement. (CEN 3587)

ENGL 108
COMPOSING SKILLS (1CR)
In this review of the various aspects of composition, students will examine creating, outlining and developing a variety of paragraph and essay forms. Class includes individualized tutoring and practice in writing. By arrangement. (CEN 3588)

ENGL 109
PROOFREADING SKILLS (1CR)
Students will learn to recognize and correct errors on exercise sheets and in their own writing. By arrangement. (CEN 3589)

ENGL 121
COMPOSITION I (3CR)
Prerequisite: ENGL 105, ENGL 106 or appropriate assessment score
This standard freshman English I course concentrates on the invention, development and organization of essays. Students will practice developing form and content of clear, interesting compositions. 3 hrs./wk. (CEN 7612)

ENGL 122
COMPOSITION II (3CR)
Prerequisite: ENGL 121
This standard freshman English II course emphasizes organization and development of analytical essays written in response to assigned readings. Related research projects will be assigned. 3 hrs./wk. (CEN 5732)

ENGL 123
TECHNICAL WRITING (3CR)
Prerequisite: ENGL 121
Emphasis will be on written communication related to manufacturing and engineering including short reports, letters and resumes. 3 hrs./wk. (CEN 5578)

ENGL 222
ADVANCED COMPOSITION (3CR)
Prerequisite: ENGL 122
Students will write expository and argumentative essays, practicing subject selection, development, organization and style. 3 hrs./wk. Fall. (CEN 5577)

ENGL 223
CREATIVE WRITING (3CR)
Prerequisite: ENGL 122
Students will study and practice poetry and short story writing. Topics include writing verse and fiction effectively, as well as such narrative forms as the play, novel and autobiographical sketch. Students will prepare projects for submission to professional editors and receive marketing tips. 3 hrs./wk. (CEN 5579)

ENGL 224
CREATIVE WRITING WORKSHOP (3CR)
Prerequisite: ENGL 233
Students with serious writing aspirations will get advanced practice in writing the short story, novel, non-fiction narrative, play and poetry. Students will gain critical skills by critiquing each other's work. 3 hrs./wk. Spring. (CEN 5580)

ENGL 225
COLLEGE GRAMMAR (3CR)
Prerequisite: ENGL 122
This course provides a systematic study of English using the approach of traditional grammar. Emphasis will be on structure, but attention also will be given to words, their use and abuse. 3 hrs./wk. (CEN 3592)
ENGL 230  
INTRODUCTION TO FICTION (3CR)  
Prerequisite: ENGL 122  
This introduction to fiction from different countries and eras will emphasize fictional techniques and themes in selected novels and short stories. Students will read, discuss and write about the assigned fiction. 3 hrs./wk. (CEN 3898)

ENGL 231  
AMERICAN WRITERS (3CR)  
Prerequisite: ENGL 122  
Students will read complete works of selected American writers and be assigned related writing projects. The course focuses on important works of various writers and the relationships between their lives and times and their art. 3 hrs./wk. (CEN 5582)

ENGL 232  
CHILDREN'S LITERATURE (3CR)  
Prerequisite: ENGL 122  
Students will read children's literature, both past and present. Topics include children's needs, criteria for selecting books, types of children's literature and the best authors and illustrators. 3 hrs./wk. (CEN 5586)

ENGL 233  
THE DEAF IN LITERATURE (2CR)  
The portrayal and function of deaf characters in selected works will be examined. Students will read, discuss and write about the assigned selections. 2 hrs./wk. (CEN 4457)

ENGL 241  
BRITISH WRITERS (3CR)  
Prerequisite: ENGL 122 or equivalent  
The lives, times and works of selected British writers will be examined. Students will read selected works by major British writers and be assigned related writing projects. 3 hrs./wk. Fall. (CEN 3284)

ENGL 243  
THE LITERATURE OF SCIENCE FICTION (3CR)  
Prerequisite: ENGL 122  
The themes and myths of major science fiction writers will be presented and major science fiction movies and short subjects will be reviewed. Class includes group presentations, simulations, guest speakers and related reading and writing assignments. 3 hrs./wk. Fall. (CEN 5585)

ENGL 250  
WORLD MASTERPIECES (3CR)  
Prerequisite: ENGL 122  
Students will read complete works of selected influential Western World writers. Course focuses on important works of various writers and traces their influence on later writers. Writing projects will be assigned. 3 hrs./wk. Spring. (CEN 5583)

ENGL 252  
POETRY AND DRAMA (3CR)  
Prerequisite: ENGL 122  
In this course, students will read poetry and plays of all styles and types. They will also attend selected plays and poetry readings. Writing projects will be assigned. 3 hrs./wk. Spring. (CEN 5581)

ENGL 254  
MASTERPIECES OF THE CINEMA (3CR)  
Prerequisite: ENGL 122  
Major American and foreign films will be shown and discussed with video and film-shorts added for variety and interest. Class features group presentations, written film critiques and related reading assignments. 3 hrs./wk. Spring. (CEN 5584)

EQUINE

EQUUS 110  
RECREATIONAL HORSE MANAGEMENT (3CR)  
This course is for inexperienced horse owners and those interested in purchasing a horse. Topics include the purchase of a horse and related equipment, maintenance of a pleasure horse and safety. 3 hrs., 1 day/wk. (SES 2747)

EQUUS 120  
STABLE MANAGEMENT I (4CR)  
The caring of horses - feeding, grooming, barn sanitation and upkeep - will be studied. 2 hrs. class, 4 hrs. practical exercises in the stable/wk. (SES 4734)

EQUUS 124  
EQUINE ANATOMY AND PHYSIOLOGY (4CR)  
Students will study the structure and Development of the circulatory, nervous, skeletal, muscular, digestive and respiratory systems of horses. 4 hrs./wk. (SES 2335)

EQUUS 126  
EQUINE JUDGING (2CR)  
Topics include equine selection, class placings and evaluation techniques. 4 hrs./wk. (SES 1308)

EQUUS 128  
EQUITATION I (4CR)  
This instruction in the classical form of riding and training horses includes terminology, equitation and rules for competition. 4 hrs./wk. for 16 wks. (SES 4141)

EQUUS 132  
EQUINE HEALTH, DISEASE, NUTRITION AND DISORDERS (4CR)  
Prerequisite: EQUUS 124  
This is a study of general health care and routine procedures; nutrition; preventive health care; restraint of horse; horse owner's basic treatments; equine obstetrics and foal care; equine ailments; special treatments and procedures; and the use of drugs and related substances. 5 hrs. class/lab/wk. (SES 3820)
EQUUS 134  
TECHNIQUES OF RIDING INSTRUCTION I (3CR)  
Prerequisite: Approval of division director  
Students who intend to specialize in riding instruction can participate in this cooperative work experience class. It features demonstrations of teaching methods, skills development and oral presentations. 4 hrs./wk. (SES 1184)

EQUUS 135  
TECHNIQUES OF RIDING INSTRUCTION II (3CR)  
Prerequisite: EQUUS 134  
Areas covered in this cooperative work experience class include planning safe camp programs and public lessons; rider problems; maintenance of the school horse; and practice in planning and teaching at the elementary and intermediate levels of riding. 4 hrs./wk. (SES 1237)

EQUUS 140  
STABLE MANAGEMENT II (4CR)  
Prerequisite: EQUUS 120  
This course stresses elements of supervision as well as general horse management. Topics include basic horsemanship, training techniques, loading, driving, general mechanics and grooming. 4 hrs./wk. (SES 2352)

EQUUS 142  
ADVANCED HORSE TRAINING (2CR)  
Prerequisite: EQUUS 140  
This advanced cooperative work experience class concentrates on training horses for special events. 4 hrs./wk. (SES 3784)

EQUUS 154  
EQUITATION II (4CR)  
Prerequisite: EQUUS 128  
This introduction to saddle seat equitation will stress the position of the rider, control of the horse and basic movements. 6 hrs./wk. (SES 2746)

EQUUS 220  
STABLE MANAGEMENT III (4CR)  
Prerequisite: EQUUS 140  
This continuation of EQUUS 140 emphasizes horse handling. It covers haltering, leading, bitting, lunging, saddling and bridling restraining and general stable management. 4 hrs./wk. (SES 1350)

EQUUS 222  
EQUINE BREEDING AND MANAGEMENT (4CR)  
Prerequisite: EQUUS 124  
Topics include anatomy, reproductive physiology, genetics, breeding diseases, congenital and hereditary problems, selection and management of breeding stock. 5 hrs./wk. (SES 3029)

EQUUS 257  
STABLE MANAGEMENT IV (4CR)  
Prerequisite: EQUUS 220  
Students will study the business functions related to stable management, human relations and supervisory techniques, showmanship and judging. 4 hrs./wk. (SES 1103)

EQUUS 281  
ADVANCED EQUITATION PROJECT (2CR)  
Prerequisite: Approval of division director  
Under the supervision of an instructor, the student will develop an individual project stressing skills not fostered in the equine program courses. Projects must have clearly stated objectives and be approved by program coordinator. 4 hrs./wk. (SES 3489)

FASHION MERCHANDISING

FASH 121  
FASHION FUNDAMENTALS I (3CR)  
Students will study the total fashion industry from the designer to the manufacturer and distributor. The class will conclude with consumer and merchandising trends. 3 hrs./wk. Fall. (BFM 7013)

FASH 125  
FASHION DISPLAY (3CR)  
The visual merchandising of fashion products is the topic of this course. Students will work on creating effective interior and window displays using materials, colors, lighting and signs. 3 hrs./wk. Fall. (BFM 1054)

FASH 130  
FASHION ILLUSTRATION I (3CR)  
Students will sketch human figures and clothing designs to be used in newspaper and magazine advertising. 3 hrs./wk. (BFM 5294)

FASH 132  
FASHION PROMOTION (3CR)  
Fashion promotion — including publicity, special events, fashion shows, personal selling, advertising and display — will be explored in this course. Students will plan a fashion show, choosing themes, merchandise, location, music and commentary. 3 hrs./wk. Spring. (BFM 4655)

FASH 150  
TEXTILES (3CR)  
Natural and synthetic textile fibers, weaves, knits, dyeing and printing methods will be studied with emphasis on selling techniques, care and use of textiles. 3 hrs./wk. (BFM 1195)

FASH 220  
FASHION IN SOCIETY (3CR)  
In this look at the psychological, economic and sociological aspects of clothing, students will relate wardrobe management and artistic expression to personal clothing choices and to clothing symbolism in other cultures. 3 hrs./wk. (BFM 3046)
FASH 224
HISTORY OF DRESS (3CR)
In this look at the evolution of dress in the Western world, key topics will be the fashion cycle and how economic, political, social and technological advancements affect it. 3 hrs./wk. Spring. (BFM 2568)

FASH 230
FASHION ILLUSTRATION II (3CR)
Prerequisite: FASH 130
This is an in-depth study of fashion illustration as a visual selling technique with emphasis on developing an individual style. Students will develop a portfolio geared to their individual goals. 3 hrs./wk. Spring. (BFM 1926)

FASH 231
FASHION FUNDAMENTALS II (3CR)
Prerequisite: FASH 121
The technical aspects of merchandising, personnel policies, principles of management, role of the buyer, buying principles and merchandising mathematics are covered in this course. 3 hrs./wk. Fall. (BFM 1019)

FASH 242
MERCHANDISE EVALUATION (3CR)
Students will evaluate textile and non-textile products ranging from lingerie to china. Students will prepare a manual and conduct simulated departmental meetings to train staff in selling a selected product. 3 hrs./wk. Spring. (BFM 3503)

FASH 271
FASHION SEMINAR: HUMAN RELATIONS (2-3CR)
Prerequisite: Admission to the Fashion Merchandising Program
Students will work in an approved training situation under supervision of the instructor, concentrating on how people can work effectively in groups to satisfy both individual and organizational needs. 2 hrs./wk. with a minimum of 15 hrs. on-the-job training by arrangement. Fall. (BFM 3863)

FASH 274
FASHION SEMINAR: SUPERVISORY DEVELOPMENT (2-3CR)
Prerequisite: Admission to the Fashion Merchandising Program
Students will work in an approved training situation under the supervision of the instructor, concentrating on communicating ideas, obtaining teamwork, determining goals, assessing promotability, getting results through group effort and key problems in supervision. 2 hrs./wk. with a minimum of 15 hrs. on-the-job training/wk. by arrangement. Spring. (BFM 3865)

FASH 276
FASHION SEMINAR: CAREER OPTIONS (2-3 CR)
Prerequisite: Admission to the Fashion Merchandising Program
Students will work in an approved training situation under the supervision of the instructor. They will also work on developing career goals by exploring career options. 2 hrs./wk. with a minimum of 15 hrs. on-the-job training/wk. by arrangement. Fall. (BFM 3864)

FASH 279
FASHION SEMINAR: MARKET RESEARCH (2-3CR)
Prerequisite: Admission to the Fashion Merchandising Program
Students will work in an approved training situation under the supervision of an instructor, concentrating on marketing research and problem-solving techniques. Topics include simple statistical measurements and how they can help solve specific business problems. 2 hrs./wk. and a minimum of 15 hrs. on-the-job training by arrangement/wk. Spring. (BFM 3862)

FASH 298
EUROPEAN FASHION EMPHASIS (3CR)
This class offers a comparison of American and European retail merchandising, advertising and visual presentation.

FIRE PROTECTION / PUBLIC SAFETY AND ADMINISTRATION

FIRE 121
FUNDAMENTALS OF FIRE PREVENTION (3CR)
This class covers the organization and function of fire prevention; inspections, surveying and mapping; recognizing life and fire hazards; eliminating fire hazards; and public relations. 3 hrs./wk. (EFS 1745)

FIRE 125
BUILDING CONSTRUCTION FOR FIRE PROTECTION (3CR)
Students will explore how to classify buildings by occupancy and types of construction with emphasis on fire protection features including building equipment, facilities, fire-resistant materials and high-rise considerations. 3 hrs./wk. (EFS 3744)

FIRE 127
FIRE PHOTOGRAPHY (3CR)
In this introduction to fire photography, students will study types of equipment used and how photography can help meet department goals and objectives. 3 hrs./wk. (EFS 4089)

Most JCCC fashion merchandising graduates enter the field of retailing.
FIRE 130
FIRE INVESTIGATION (3CR)
How to determine the cause of the fire will be explained in this introductory course. The course does not deal with arson investigation except as it relates to determining the cause of fire. 3 hrs./wk. (EFS 1529)

FIRE 132
ARSON INVESTIGATION (3CR)
Prerequisites: FIRE 127 and FIRE 130
Arson investigation techniques and procedures — including evidence preservation, interviewing and courtroom procedures — will be covered in this class for advanced students. 3 hrs./wk. (EFS 1527)

FIRE 135
LIFE SAFETY CODES (3CR)
Advanced students will study how to read and interpret codes and ordinances especially the Life Safety Codes which are used extensively in fire prevention. 3 hrs./wk. (EFS 1528)

FIRE 137
EXTINGUISHING, DETECTION AND ALARM SYSTEMS (3CR)
This introductory course for advanced students will cover types of extinguishing, detection and alarm systems and how they operate. 3 hrs./wk. (EFS 1525)

FIRE 150
INTRODUCTION TO FIRE SCIENCE (3CR)
Topics include career opportunities; history of fire protection; fire loss analysis; public, quasi-public and private fire protection services; specific fire protection functions; fire chemistry and physics. 3 hrs./wk. (EFS 1743)

FIRE 155
FIRE HYDRAULICS (3CR)
This is a review of mathematics and hydraulics laws. Students will apply formulas and calculate hydraulics and water supply problems. 3 hrs./wk. (EFS 1748)

FIRE 157
FIRE HYDRAULICS LABORATORY (1CR)
Corequisite: FIRE 155
Students will experiment with and apply hydraulic laws, formulas and calculations of hydraulic and water supply problems. Also covered will be the testing of water flows and water supplies as a function of hydraulics. 3 hrs./wk. (EFS 2577)

FIRE 160
FIRE APPARATUS AND EQUIPMENT (3CR)
Fire apparatus — its design, specifications, capabilities and use in emergencies — will be covered. 3 hrs./wk. (EFS 3757)

FIRE 162
FIRE TACTICS AND STRATEGY (3CR)
Fire control through manpower, equipment and extinguishing agents will be explored in this second-year course. 3 hrs./wk. (EFS 5756)

FIRE 165
RESCUE PRACTICES (3CR)
Topics in this first-year course include rescue problems and techniques; emergency rescue equipment; toxic gases; chemicals and diseases; radiation hazards; care of victims; emergency childbirth; respiration and resuscitation; extraction; and other emergency conditions. 3 hrs./wk. (EFS 6755)

FIRE 167
RESCUE PRACTICES LABORATORY (1CR)
Corequisite: FIRE 165
Students will apply rescue theories and techniques including auto extraction, repelling and CPR. 3 hrs./wk. (EFS 4481)

FIRE 170
SPRINKLER AND STANDPIPE SYSTEMS (3CR)
This advanced course explains the types of sprinkler and standpipe systems used in fire protection and how to operate them. 3 hrs./wk. (EFS 1523)

FIRE 172
HAZARDOUS MATERIALS (3CR)
Prerequisite: CHEM 122
Advanced students will study how to recognize hazardous materials and how to manage incidents involving hazardous materials. Topics include explosives, radioactive material, flammable and compressed gases as well as transporting hazardous materials. 3 hrs./wk. (EFS 1531)

FIRE 175
ESSENTIALS OF FIREFIGHTING (4CR)
This first-year class will explain basic firefighting skills with emphasis on the theory of fire protection and on identifying and using equipment safely. 3 hrs. lecture, 3 hrs. lab/wk. (EFS 7981)

FIRE 220
MUNICIPAL FIRE ADMINISTRATION (3CR)
Techniques and methods used in managing fire departments will be explored in this second-year class including budgeting processes, administrative functions and types of political systems that affect a fire department. 3 hrs./wk. (EFS 1532)

FIRE 222
FIRE SCIENCE LAW (3CR)
The law as it pertains to the fire service will be explained along with tort law and business law in this class for advanced students. 3 hrs./wk. (EFS 1526)

JCCC produces a number of community service programs on Overland Park Telecable channel 3A.
FOREIGN LANGUAGE

FL 120
ELEMENTARY GERMAN I (5CR)
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 is integrated into the course. 5 hrs. class, 1/2 hr. lab/wk. (CFL 3196)

FL 121
ELEMENTARY GERMAN II (5CR)
Prerequisite: FL 120 or one year of high school German
This course continues 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. class, 1/2 hr. lab/wk. (CFL 6207)

FL 130
ELEMENTARY SPANISH I (5CR)
In this basic course, students will study Spanish grammar, conversation, composition and the culture of Spanish-speaking countries. 5 hrs. class, 1/2 hr. lab/wk. (CFL 3285)

FL 131
ELEMENTARY SPANISH II (5CR)
Prerequisite: FL 130 or one year of high school Spanish
This course continues the presentation of material introduced in SPANISH I. Graded reading selections are added as a basis for conversation and composition in discussion periods. 5 hrs. class, 1/2 hr. lab/wk. (CFL 1239)

FL 140
ELEMENTARY FRENCH I (5CR)
Areas covered in this basic course include vocabulary building, grammar study, conversation and an introduction to French culture and civilization. Emphasis is on conversation. 5 hrs. class, 1/2 hr. lab/wk. (CFL 4570)

FL 141
ELEMENTARY FRENCH II (5CR)
Prerequisite: FL 140 or one year of high school French
This course continues the presentation of material introduced in FRENCH I. Graded reading selections will be used as the basis for conversations. 5 hrs. class, 1/2 hr. lab/wk. (CFL 2293)

FL 150
ELEMENTARY RUSSIAN I (5CR)
In this course, students will study the sounds, vocabulary and basic structural patterns of Russian. Focus will be on listening comprehension, speaking, reading and writing skills. Cultural material will be included. 5 hrs. class, 1/2 hr. lab/wk. (CFL 3391)

FL 220
INTERMEDIATE GERMAN (3CR)
Prerequisite: FL 121 or two years of high school German
This class further expands 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. class, 1/2 hr. lab/wk. (CFL 3401)

FL 221
ADVANCED GERMAN (3CR)
Prerequisite: FL 220 or three years of high school German
This class furthers 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. class, 1/2 hr. lab/wk. (CFL 5199)

FL 230
INTERMEDIATE SPANISH (3CR)
Prerequisite: FL 131 or two years of high school Spanish
This is a reading course designed to build vocabulary, increase students' understanding of Hispanic culture and increase speaking fluency. The course includes composition and conversation. 3 hrs. class, 1/2 hr. lab/wk. (CFL 7221)

FL 231
ADVANCED SPANISH (3CR)
Prerequisite: FL 230 or three years of high school Spanish
Extensive study of Hispanic literature is included in this class along with advanced reading and grammar review. 3 hrs. class, 1/2 hr. lab/wk. (CFL 6626)
FL 240
INTERMEDIATE FRENCH (3CR)
Prerequisite: FL 141 or two years of high school French
Students will work on building vocabulary and comprehension and increasing speaking ability. Emphasis is on conversation and composition. A grammar review of FRENCH I and II also is included. 3 hrs. class, ½ hr. lab/wk. (CFL 2293)

FL 241
ADVANCED FRENCH (3CR)
Prerequisite: FL 240 or three years of high school French
Students will study newspaper articles from MATCH, ELLE and LEXPRESS in this advanced reading course. A complete grammar review, conversation and composition are included. 3 hrs. class, ½ hr. lab/wk. (CFL 1442)

FL 243
CONVERSATIONAL FRENCH (2CR)
Prerequisite: FL 141 or two years of high school French
This course is designed to build spontaneous speaking ability. Everyday life situations and current events are discussed in class. 2 hrs. /wk. (CFL 2247)

FL 298
FRENCH CULTURE AND CIVILIZATION (3CR)
In this travel-for-credit course to France, students will experience French culture as they visit Paris and most of the sites and places of historical significance in France. Summer. (CFL 3939)

HEALTH

HLTH 120
FIRST AID CPR (3CR)
This class will cover cause, prevention and first aid care of common emergencies. American Red Cross certification can be earned in standard first aid and personal safety and in cardiopulmonary resuscitation. 3 hrs. /wk. (PD 2711)

HLTH 125
PERSONAL HEALTH AND COMMUNITY HYGIENE (3CR)
Students will discuss the maintenance of good health. Discussion topics will include exercise and fitness, drug abuse, emotional health, proper nutrition, alcohol, tobacco, chronic and communicable diseases, human sexuality and consumer health. The relationships between the individual and community health will be emphasized. 3 hrs. /wk. (PD 4368)

HLTH 250
CARE AND PREVENTION OF ATHLETIC INJURY (3CR)
This introduction to athletic training techniques for the competitive and recreational athlete will cover prevention of sports injuries, rehabilitation and taping techniques and proper nutrition. The student will receive Cramer Certification as a student trainer upon successful completion of the course. 3 hrs. /wk. (PD 4342)

HEARING IMPAIRED

HRIM 100
BASIC ENGLISH FOR HEARING IMPAIRED PERSONS I (HIP) (3CR)
Students will work on basic skills in written communication including sentence structure, the system of language and its characteristics and functions. Vocabulary and the effect of words will be emphasized. 5 hrs. /wk. (AHP 6083)

HRIM 101
BASIC ENGLISH FOR HIP II (3CR)
Prerequisite: HRIM 100
In this continuation of HRIM 100, emphasis is on the areas leading to clear, written communication: grammar, organization, idiomatic usage, spelling and vocabulary. 5 hrs. /wk. (AHP 6084)

HRIM 102
BASIC ENGLISH FOR HIP III (3CR)
Prerequisite: HRIM 101
Students will practice expression through writing compositions. Emphasis is on organization, clarity of expression and style. 5 hrs. /wk. (AHP 6085)

HRIM 105
ADJUSTMENTS INTO ADULT LIVING (HIP) (3CR)
This class teaches the daily living skills students need to become part of the mainstream in college including study habits, money management and employer-employee relationships. Also included will be an introduction to college facilities and support services, career exploration and clarification of personal values. 3 hrs. /wk. (AHP 3024)

HRIM 107
SPEECH THERAPY (3CR)
This small group learning experience is designed to meet the student's needs. It will cover communication disorders related to hearing loss, disfluency, resonance, voice and articulation problems. 3 hrs. /wk. (AHP 6815)

HRIM 110
DEVELOPMENTAL READING FOR THE HEARING IMPAIRED I (2CR)
The hearing impaired student can work on reading skills in these small group sessions. The course emphasizes reading comprehension and vocabulary development through selected readings, current affairs readings, discussion and vocabulary building. 3 hrs. /wk. (CLC 4609)

The Gallaudet College Extension Center at JCCC provides Missouri, Kansas, Nebraska, Oklahoma, Arkansas and Iowa with a variety of credit and non-credit educational experiences related to the hearing impaired.

Health courses have no prerequisites.
HRIM 111
DEVELOPMENTAL READING FOR THE HEARING IMPAIRED II (3CR)
Prerequisite: HRIM 110
The hearing impaired student can continue to develop reading skills in these group sessions. Emphasis is on reading, comprehension and vocabulary development through selected readings, Line 21 decoder, discussion and vocabulary building.
3 hrs./wk. (CLC 4626)

HRIM 118
FUNDAMENTALS OF MATH (HIP) (3CR)
This class focuses on a review of fractions, decimals and whole numbers; numeration; practical applications of percent, dimensions and linear equations.
3 hrs./wk. (MTH 2122)

HRIM 121
BASIC MANUAL COMMUNICATIONS (3CR)
In this course on Basic Sign Language, students will work on developing visual perception, body language skills and basic sign language communication skills.
3 hrs./wk. (AHP 7029)

HRIM 123
INTERMEDIATE MANUAL COMMUNICATIONS (3CR)
Prerequisite: HRIM 121
This continued study of Sign Language emphasizes signed vocabulary in context, body and facial grammatical markers, and facial expressions.
3 hrs./wk. (AHP 4488)

HRIM 291
INDEPENDENT STUDY: HEARING IMPAIRED (1-7CR)
Prerequisite: Approval of division director
Students will take part in directed independent study focusing on areas related to education of the hearing impaired.

HISTORY

HIST 120
LOCAL AND KANSAS HISTORY (3CR)
In this course on the development of local community life from 1850 to the present, students first will study the Indian population in Kansas in 1850. Next they will study the coming of the settlers and the development of their communities. Also examined will be how Kansas communities grew and how they reflected national trends. Speakers will be featured in class and a project required.
3 hrs. lecture/wk. (SS 1776)

HIST 125
WESTERN CIVILIZATION: READINGS AND DISCUSSION I (3CR)
Students will consider major ideas in Western civilization dealing with man's relationship to the environment and speculations about the nature of God.

HIST 126
WESTERN CIVILIZATION: READINGS AND DISCUSSION II (3CR)
Major ideas in Western civilization dealing with social, economic, political and ethical relations will be explored. Students will read the works out of class and take part in small group discussions every other week.
(SS 5500)

HIST 130
EUROPEAN HISTORY FROM 1750 (3CR)
Major trends in Europe from the period of the Industrial Revolution through today will be examined. Topics include industrialization, nationalism and World Wars I and II.
3 hrs./wk. (SS 9922)

HIST 140
U.S. HISTORY TO 1877 (3CR)
This survey course in U.S. history emphasizes developments and trends in American society from the early period of discovery and settlement through Reconstruction. Topics include the Colonial era, the Revolutionary period, the Federalist era, expansion of the Republic during the mid-19th century and the Civil War and Reconstruction.
3 hrs./wk. (SS 1055)

HIST 141
U.S. HISTORY SINCE 1877 (3CR)
This survey course emphasizes developments and trends in American society from the 1870s to the mid-20th century. Topics include the Reconstruction era, industrialization, immigration, reform movements, World Wars I and II, and foreign policy. Emphasis is on Wars analysis and interpretation of the development.
3 hrs./wk. (SS 2000)

HIST 160
MODERN RUSSIAN HISTORY (3CR)
This course focuses on the social, economic, political and cultural forces that have shaped this important world power since the reign of Peter the Great.
3 hrs./wk. (SS 4087)

HOME ECONOMICS

HMCE 131
FAMILY COMMUNICATIONS (3CR)
Strategies for coping with stressful situations, the adult and family life cycle, and current issues involving families such as drugs, violence and divorce will be examined.
3 hrs./wk. (BLH 7003)

HMCE 142
HOME MANAGEMENT (3CR)
A systems approach to management, especially of the dual-career family, will be examined. Topics include goal setting, planning, decision making and the management of time, energy and money.
3 hrs./wk. (BLH 7004)
HMEC 151
NUTRITION AND MEAL PLANNING (3CR)
Emphasis will be on basic food groups — their use in meal planning, their functions and their nutritional values. Current trends in eating, diet and exercise as well as fad diets and life cycle nutritional needs will be considered. Students will evaluate their own diets. 3 hrs./wk. (BLH 2599)

HORTICULTURE

HORT 115
HOME HORTICULTURE (2CR)
This is an introduction to the management of a home lawn, garden and trees. Students will review the horticulture industry, look at career opportunities and practice in the lab techniques studied in class. 1 hr. lecture, 2 hrs. lab/wk. (NAB 2857)

HORT 120
FUNDAMENTALS OF LANDSCAPING (3CR)
Topics include developing a landscaping plan, identifying landscape materials, managing a landscape and constructing a residential landscape. 2 hrs. lecture, 2 hrs. lab/wk. (NAB 5620)

HORT 125
HORTICULTURE I (5CR)
Prerequisite: BIOL 125
Students will examine the classification, taxonomy, nomenclature and growth of horticultural plants. 3 hrs. lecture, 4 hrs. lab/wk. (NAB 5205)

HORT 126
HORTICULTURE II (5CR)
Prerequisite: HORT 125
This is an exploration of management practices used in greenhouse and nursery production. 3 hrs. lecture, 4 hrs. lab/wk. (NAB 5206)

HORT 220
WOODY PLANT MATERIALS (3CR)
Prerequisite: HORT 126
Students will explore woody plant materials used for ornamental purposes. They also will look at how to operate a successful commercial nursery. 2 hrs. lecture, 3 hrs. lab/wk. (NAB 5203)

HORT 221
HERBACEOUS PLANT MATERIALS (3CR)
Prerequisite: HORT 126
Students will study herbaceous plants used for ornamental purposes. Merchandising techniques for such plants also will be examined. 2 hrs. lecture, 3 hrs. lab/wk. (NAB 5204)

HOSPITALITY MANAGEMENT

HMGT 121
HOSPITALITY MANAGEMENT FUNDAMENTALS (3CR)
This is an overview of the organization of the food service and public lodging industries and departmental functions; positions of the industries in the American economic system and; functions and limitations of the types of establishments. 3 hrs./wk. (BHM 6037)

HMGT 123
BASIC FOOD PREPARATION (3CR)
Prerequisite: Admission to the Hospitality Management Program
In this study of basic food preparation in the hospitality industry topics include quantity food preparation; grilling, frying, broiling and sautéing; use and maintenance of equipment; duties performed at each station and; meat cuts, basic salad dressings and sauces. 3 hrs./wk. (BHM 7028)

HMGT 126
FOOD MANAGEMENT (4CR)
Prerequisite: HMGT 123 and admission to the Hospitality Management Program
Areas emphasized include menu planning and meal service for all phases of food service and various occasions; buffet service; French service; American service; and waiter/waitress training. Students will take part in the operation of a campus dining room and will be involved in profit and loss statements, sales promotion and competitiveness studies. 6 hrs./wk. (BHM 3006)

HMGT 128
SUPERVISORY MANAGEMENT (3CR)
Basic supervisory management skills, management styles, motivation with emphasis on human relations, delegation training, evaluation and communication are among the areas covered. 3 hrs./wk. (BHM 4489)

HMGT 219
HOTEL - MOTEL OPERATIONS (3CR)
The management of public lodging establishments will be the focus of this course. Topics include front office procedures, rental of rooms, reception of guests, handling reservations, guest requests and complaints, convention and meeting procedures, guest records, mail and other routine procedures. 3 hrs./wk. (BHM 4203)

HMGT 221
DESIGN TECHNIQUES (3CR)
Prerequisites: HMGT 123 and HMGT 271
Food service design — including the menu, the location and the type of clientele expected — will be studied in detail. Topics include layout, design and equipment specification. 3 hrs./wk. (BHM 3903)
HMGT 223
FUNDAMENTALS OF BAKING (3CR)
Topics include ingredients, measurements, mixing, proofing, baking and final presentation. Students also will study various types of baking equipment. Class includes lecture and participation. 3 hrs./wk. (BHM 2163)

HMGT 228
FOOD SPECIALTIES - GARDE MANGER (3CR)
Prerequisite: HMGT 123
This course covers soups, stocks, sauces, garde-manger section, chaudfroid pieces, buffets, and ice carving. 3 hrs./wk. (BHM 2166)

HMGT 228
ADVANCED HOSPITALITY MANAGEMENT (3CR)
Prerequisites: HMGT 121, HMGT 128, HMGT 274
Students will have the opportunity to apply their skills in menu planning, food service, supervision, design and beverage control. This class focuses on managerial responsibility. 3 hrs./wk. (BHM 1388)

HMGT 230
INTERMEDIATE FOOD PREPARATION (3CR)
Prerequisite: HMGT 123
This course is designed to help the student's transition from basic to intermediate food skills. Students will study secondary sauces as well as the entire area of American cuisine. The course consists of lecture, demonstration and participation in food preparation. (BHM 5185)

HMGT 231
ADVANCED FOOD PREPARATION (4CR)
Prerequisites: HMGT 230 and HMGT 126
Students with intermediate food skills can concentrate on the advanced skills necessary for preparing international cuisine. 4 hrs./wk. (BHM 7803)

HMGT 244
SCHOOL FOOD SERVICE DEVELOPMENT (1CR)
In a hands-on practical approach to cafeteria operations, the class will cover four areas: productivity and planning, purchasing, preparation and service. 1 hr./wk. (BHM 3425)

HMGT 271
SEMINAR IN HOSPITALITY MANAGEMENT: PURCHASING (2-3CR)
Prerequisite: Admission to the Hospitality Management Program
Students will study purchasing techniques and specification writing for items used in the industry. This training takes place in a supervised work situation in an approved area of hospitality industry. 2 hrs. class, 15 hrs. minimum of on-the-job training/wk. By arrangement. (BHM 4593)

HMGT 274
SEMINAR IN HOSPITALITY MANAGEMENT: ACCOUNTING (2-3CR)
Prerequisite: Admission to the Hospitality Management Program
Students will prepare operation statements for food service operators, inventories and control systems. Areas of concentration will be food cost controls, labor cost controls and profit production. This training takes place in a supervised work situation in an approved area of the hospitality industry. 2 hrs./wk. (BHM 4592)

HMGT 275
SEMINAR IN HOSPITALITY MANAGEMENT INTERNSHIP (2-3CR)
Prerequisite: Admission to the Hospitality Management Program
This class consists of supervised work experience in an approved area of the hospitality field. By arrangement. Summer. (BHM 2640)

HMGT 277
SEMINAR IN MENU PLANNING AND SALES PROMOTION (2-3CR)
Prerequisite: HMGT 123
This course covers menu planning for every type of service and facility. Topics include menu layout, selection and development; price structures; the theory of menu design. 2 hrs. class, a minimum of 15 hrs. on-the-job training by arrangement/wk. (BHM 4591)

HMGT 279
SEMINAR IN BEVERAGE CONTROL (2-3CR)
In this course on beverage control in all types of operations, topics include history of wines, their use and storage procedures. Students will take part in an in-depth study of spirits, internal control systems and local and state alcoholic beverage control laws. 3 hrs./wk. (BHM 4594)

HMGT 281
CULINARY ARTS PRACTICUM I (2CR)
Prerequisite: Acceptance into the American Culinary Federation Chef Apprenticeship Training Program
A qualified chef will supervise this on-the-job apprentice training. Students will study and apply food preparation and presentation techniques, gaining experience in all phases of food service operation. (BHM 2913)

HMGT 282
CULINARY ARTS PRACTICUM II (2CR)
Prerequisite: HMGT 281
This is a continuation of CULINARY ARTS PRACTICUM I. (BHM 4941)

HMGT 285
CULINARY ARTS PRACTICUM III (2CR)
Prerequisite: HMGT 282
This is a continuation of CULINARY ARTS PRACTICUM II. (BHM 5942).
HMGT 286
CULINARY ARTS PRACTICUM IV (2CR)
Prerequisite: HMGT 285
This is a continuation of CULINARY ARTS PRACTICUM III. (BHM 7943)

HMGT 287
CULINARY ARTS PRACTICUM V (2CR)
Prerequisite: HMGT 286
This is a continuation of CULINARY ARTS PRACTICUM IV. (BHM 6944)

HMGT 288
CULINARY ARTS PRACTICUM VI (2CR)
Prerequisite: HMGT 287
This is a continuation of CULINARY ARTS PRACTICUM V. (BHM 9945)

HUMANITIES

HUM 122
INTRODUCTION TO THE HUMANITIES (3CR)
This interdisciplinary study begins with a look at artistic and technical elements of several art forms including painting, music and drama. Major themes these art forms express also are examined. 3 hrs./wk. (HUM 6120)

HUM 133
COMPARATIVE CULTURES (3CR)
This interdisciplinary study traces the development of the humanities in two European cultures and one Asian culture. This information will serve as background to a study of the arts in contemporary society. 3 hrs./wk. (HUM 5431)

HUM 144
INTRODUCTION TO ART HISTORY (3CR)
This historical study of art traces its development from prehistoric times to the 18th century. 3 hrs./wk. (HAR 1713)

HUM 147
MODERN ART HISTORY (3CR)
In this advanced art history course, students will study 18th, 19th and 20th century American and European artists. 3 hrs./wk. (HAR 3878)

HUM 298
YUCATAN FIELD COURSE: MAYAN ART AND CULTURE OF MEXICO (3CR)
This travel-for-credit course consists of pre-departure seminars emphasizing the arts and cultures of the ancient civilization of the Yucatan peninsula of Mexico. It also consists of travel in the field focusing on the architectural ruins, two- and three-dimensional art forms and the crafts of ancient inhabitants of the peninsula. Rituals associated with the primitive culture and the contrast of past and present Yucatan inhabitants also will be studied. 1 hr. lecture, 4 hrs. lab/wk. (HUM 4890)

INFORMATION/WORD PROCESSING

IWP 121
WORD PROCESSING APPLICATIONS I (3CR)
Prerequisite: SEC 122
This is an introduction to the basic function of shared logic word processing equipment. 3 hrs. lecture, 2 hrs. lab/wk. (BWP 3467)

IWP 131
WORD PROCESSING CONCEPTS (3CR)
This is an introduction to the terminology and procedures common to word processing systems in an organization. The operations, applications and administration of word processing will be discussed. 3 hrs. lecture/wk. (BWP 3468)

IWP 132
WORD PROCESSING APPLICATIONS II (3CR)
Prerequisite: IWP 121
WORD PROCESSING APPLICATIONS II is designed to enhance the students' ability to perform basic functions - keyboarding, editing, storage and retrieving — and to introduce them to advanced functions on shared logic word processing equipment.

IWP 211
INFORMATION PROCESSING MANAGEMENT (3CR)
Prerequisite: IWP 131
Advanced concepts for information/word processing management will be introduced. The course deals with a variety of concerns specific to the technical area of information word processing management. Topics include feasibility studies, equipment selection procedures, equipment installation, development of a center, ergonomics, personnel and training.

INTERIOR MERCHANDISING

ITMD 121
INTERIOR DESIGN I (3CR)
This basic course in interior design emphasizes the elements and principles of design, color and color theory and practical application of materials in today's home. 3 hrs./wk. (BIM 2564)

ITMD 122
INTERIOR DESIGN II (3CR)
Prerequisite: ITMD 121
Students with basic interior design skills have the opportunity to increase and apply their knowledge in this class. 3 hrs./wk. (BIM 2565)
ITMD 132
INTERIOR PRODUCTS (3CR)
This is an in-depth study of the materials used in interiors. Areas covered include floors, wall and window coverings, and furniture. Students also become familiar with new trends and ideas in housing through field trips and observations. 3 hrs./wk. (BIM 2561)

ITMD 231
HISTORY OF FURNITURE DESIGN (3CR)
This is a chronological study of furniture and interiors offering specific information on materials, construction, motifs, colors and other factors. Emphasis is on the influence historical styles have on today's homes. 3 hrs./wk. (BIM 3032)

ITMD 232
HOUSING AND EQUIPMENT (3CR)
Consumerism, home safety, maintenance and energy conservation as applied to household products, appliances and equipment will be emphasized. Large and small appliances will be explored. New trends and ideas in housing equipment and materials will be observed through field trips and demonstrations. 3 hrs./wk. (BLH 2858)

ITMD 272
INTERIOR MERCHANDISING SEMINAR: PRACTICES AND PROCEDURES (2-3CR)
Prerequisite: ITMD 121
Students will work in approved training situations under the supervision of an instructor. They will study interior product business formations, contracts, papers and procedures necessary for effective business management. Class also includes discussion of job opportunities and business ethics. 2 hrs. class, 15 hrs. minimum on-the-job training by arrangement/wk. (BIM 6602)

ITMD 274
INTERIOR MERCHANDISING SEMINAR: BUDGET AND ESTIMATING (2-3CR)
Prerequisite: ITMD 121
Students will work in an approved training situation under the supervision of an instructor. Focus will be on residential and commercial jobs requiring specification writing and cost control with emphasis on accurately measuring materials and figuring actual costs. 2 hrs. class, a minimum of 15 hrs. on-the-job training/wk. (BIM 5021)

INTERPRETER TRAINING

INTR 110
CONVERSATIONAL SIGNED ENGLISH I (2CR)
An introduction to signed English, this class will lead students toward the development of basic conversational skills. 4 hrs. lab/wk.

INTR 111
CONVERSATIONAL SIGNED ENGLISH II (2CR)
Prerequisite: INTR 110
This course offers a continued development of signed English skills, leading toward the development of conversational skills. 4 hrs. lab/wk.

INTR 115
CONVERSATIONAL ASL I (2CR)
This is an introduction to American Sign Language, leading toward the development of basic conversational skills. 4 hrs. lab/wk.

INTR 116
CONVERSATIONAL ASL II (2CR)
Prerequisite: INTR 115
This is an introduction to American Sign Language leading to the development of intermediate conversational skills. 4 hrs. lab/wk.

INTR 120
NON-VERBAL COMMUNICATION AS A SIGN LANGUAGE BASE (3CR)
This class consists of a sequenced series of readiness activities designed to help the student develop skills in visual acuity and visual discrimination in preparation for learning ASL. 3 hrs./wk. (AIT 4686)

INTR 125
ELEMENTARY AMERICAN SIGN LANGUAGE (ASL) (8CR)
This class will focus on the development of beginning communication skills. Comprehension skills and linguistic features of the language taught in context will be emphasized. 5 hrs. lecture, 6 hrs. lab/wk. (AIT 4687)

INTR 130
ORIENTATION TO INTERPRETING (3CR)
In this overview of interpreting as an occupation, topics include interpersonal skills, professional ethics, parameters of responsibilities of the interpreter, community resources and legal ramifications. 3 hrs./wk. (AIT 4691)

INTR 132
INTERMEDIATE AMERICAN SIGN LANGUAGE (ASL) (7CR)
Prerequisite: INTER 125
Students will work on developing intermediate communication skills, concentrating on comprehension and production skills. Linguistic and cultural features will be presented in the context of language learning experiences. 5 hrs. lecture, 4 hrs. lab/wk. (AIT 4688)

INTR 135
THEORY OF AMERICAN SIGN LANGUAGE (3CR)
Prerequisite: INTR 132
Students will examine the structural and grammatical principles of ASL in this introduction to linguistic and semiotic problems of equivalency in English and ASL. 3 hrs./wk. (AIT 4698)
INTR 140
ADVANCED AMERICAN SIGN LANGUAGE I (5CR)
Prerequisite: INTR 132
Students will continue to develop ASL skills in this class. Emphasis will be on comprehension and production skills. Linguistic and cultural features will be presented in the context of language learning experiences. 3 hrs. lecture, 4 hrs. lab/wk. (AIT 4689)

INTR 142
FINGERSPELLING I (3CR)
Students will work on developing beginning expressive and receptive fingerspelling skills based on word and phrase recognition principles. 2 hrs. lecture, 3 hrs. lab/wk. (AIT 4690)

INTR 145
DEAF CULTURE (3CR)
Students will compare middle class American values, beliefs and institutions with those of the deaf community in the United States. 3 hrs./wk. (AIT 5526)

INTR 150
INTERPRETING TECHNIQUES (3CR)
Students with advanced ASL skills can upgrade their interpreting/transliterating skills in this class. Emphasis will be on analysis of English sentences and transposition required for ASL interpretation. 3 hrs./wk. (AIT 4705)

INTR 225
INTERPRETERS AND PHYSICAL "BURN OUT" (1CR)
Discussion will focus on the mental and physical stress interpreting brings about and on therapeutic exercises for preventing negative physical effects. 2 hrs./wk. (AIT 4703)

INTR 230
ADVANCED AMERICAN SIGN LANGUAGE II (3CR)
Prerequisite: INTR 140
Students will continue to develop ASL skills at an advanced level. Emphasis will be on comprehension and production skills. Linguistic and cultural features will be presented in the context of language learning experiences. 3 hrs./wk. (AIT 4694)

INTR 240
ADVANCED AMERICAN SIGN LANGUAGE III (1CR)
Prerequisite: INTR 230
Students will continue to work on developing ASL skills. Emphasis will be on comprehension and production skills. Linguistic and cultural features will be presented in the context of language learning experiences. 2 hrs. lab/wk. (AIT 4699)

INTR 242
FINGERSPELLING II (1CR)
Prerequisite: INTR 142
This course encourages students to continue developing expressive and receptive fingerspelling skills based on word and phrase recognition principles. 1 hr. lecture, 1 hr. lab/wk. (AIT 4695)

INTR 246
ENGLISH EQUIVALENTS FOR ASL (3CR)
Prerequisite: INTR 140 or permission of division director and proficiency in ASL
Students will study the many English equivalents for ASL discourse, enhancing the written English skills of deaf students and interpreting skills of hearing students. 3 hrs./wk. (AIT 2330)

INTR 250
INTERPRETING I (6CR)
Prerequisites: INTR 140 and INTR 130
In this introduction to interpreting principles, emphasis is on English-to-ASL and ASL-to-English skills. Students will take part in sequential drills and apply these skills in class. 6 hrs./wk. (AIT 5164)

INTR 255
INTERPRETING II (3CR)
Prerequisite: INTR 250
This is an advanced course concentrating on voice and expressive ASL interpreting skills. Students will have the opportunity to use these skills as they role-play employment situations. 3 hrs./wk. (AIT 5171)

INTR 261
SPECIAL TOPICS (1-8CR)
Prerequisite: Depends on topics
Current trends and topics in interpreting is the focus of this course. Topics may include medical/mental health interpreting, deaf-blind interpreting, oral interpreting, educational interpreting and trends in the field. These topics will be offered on an "as needed" basis and the course may be repeated for up to eight credits. Lecture/lab hrs. vary from 1-4 hrs. depending on topic and number of lecture/lab hrs. needed. (AIT 2334)
JOUR 225
ADVERTISING COPYWRITING (3CR)
Students will study the principles of copywriting and put them to practice by developing copy for a variety of products. Each student will prepare an advertising campaign. 3 hrs./wk. (CJO 7139)

JOUR 271
JOURNALISM FIELD STUDY I (1-3CR)
Prerequisite: Approval of division director
Under staff supervision, the student will work at an approved training center. Emphasis will be on applying writing or production techniques in such fields as newswriting, advertising and television. 2 hrs. class, a minimum of 5-15 hrs. on-the-job training by arrangement/wk. (CJO 5266)

LEARNING CENTER

LC 100
STUDY SKILLS (1CR)
Students will take diagnostic tests to determine their appropriate starting level. Students will use books and programmed materials as they work on these areas: previewing academic reading, note-taking while reading, listening and taking class notes, preparing for and taking examinations, planning time and selecting a study area. By arrangement. (CLC 4611)

LC 101
STUDY SKILLS MINI COURSE (1CR)
These small group sessions will focus on test-taking skills; taking notes; using a textbook; critical reading and memory recall; effective listening and classroom strategies; and library and counseling services. Format includes reading, discussion and practice exercises. 3 hrs./wk. for 5 wks. (CLC 4608)

LC 104
READING COMPREHENSION (1CR)
This is a self-paced, individualized course for improving comprehension skills. Instruction is through sequenced materials emphasizing survey techniques and vocabulary development. By arrangement. (CLC 4614)

LC 105
READING RATE (1CR)
Students will work on increasing their reading rate in this class. They can select their own materials to use with the reading pacer. They also will work on skimming and scanning techniques. By arrangement. (CLC 4615)

LC 106
VOCABULARY DEVELOPMENT (1CR)
Students will concentrate on techniques for unlocking meaning through context clues and a familiarity with roots, prefixes and suffixes. By arrangement. (CLC 4616)
LC 107
SPELLING IMPROVEMENT (1CR)
Students will work on correcting spelling errors using kits or programmed texts. By arrangement. (CLC 4613)

LC 108
ENGLISH GRAMMAR REVIEW (1CR)
Students will take diagnostic tests to determine at which level they should begin work. They will use programmed materials dealing with parts of speech, sentence structure, verb forms, modifiers, pronoun choices, sentence fragments and run-ons, punctuation and capitalization. By arrangement. (CLC 4612)

LC 112
BASIC MATH REVIEW (1CR)
Students will take diagnostic tests to determine their appropriate starting level. Then using programmed materials, students will review addition, subtraction, multiplication, division, fractions, decimals and percents. By arrangement. (CLC 4617)

LC 113
ALGEBRA PREPARATION (1CR)
Students will take diagnostic tests to determine their appropriate starting level. Then using programmed materials, students will work with sets, counting numbers, integers, rational numbers, equations involving two variables, polynomials, factoring, quadratics and absolute values, graphing, exponents and logarithms. By arrangement. (CLC 4618)

LC 114
CHEMISTRY PREPARATION (1CR)
Students will take diagnostic tests to determine their appropriate starting level. Then using programmed materials, students will cover a variety of topics including valences, chemical equations, solubility, ionic structures and complexes, the metric system, the atomic theory, thermochemistry, kinetic theory, nuclear structure and chemical equilibrium. By arrangement. (CLC 4619)

LC 115
INTRODUCTION TO COLLEGE (1CR)
Students will focus on becoming more aware of their personal values, their life plans and their career plans. Topics include learning styles, techniques of time management, test-taking, study skills and available college support services. 2 hrs. lecture/wk.

LC 120
INDIVIDUALIZED STUDY (1CR)
(CL 4622)

LC 121
INDIVIDUALIZED STUDY (2CR)
(CL 4621)

LC 122
INDIVIDUALIZED STUDY (3CR)
Students will work at their own pace and according to their individual ability in this class. They will use self-motivating materials and projects to study grammar, spelling, vocabulary, reading rate/comprehension, study skills, mathematics, algebra and chemistry. (CLC 4620)

LC 125
COLLEGE READING IMPROVEMENT I (3CR)
Prerequisite: Appropriate assessment score
COLLEGE READING IMPROVEMENT I is a basic level reading course which focuses on the development of a sight vocabulary, techniques of word recognition (phonetic and structural analysis and context clues), the ability to deal with words of multiple meaning and literal comprehension and recall. 3 hrs./wk. (CLC 5373)

LC 126
COLLEGE READING IMPROVEMENT II (3CR)
Prerequisite: LC 125 or appropriate assessment score
In this intermediate level class, students will review skills taught in COLLEGE READING IMPROVEMENT I. However, the major focus will be on analytical reading skills, study techniques, flexible reading rate and vocabulary enrichment. 3 hrs./wk. (CLC 5374)

LC 127
COLLEGE READING IMPROVEMENT III (3CR)
Prerequisite: LC 126 or appropriate assessment score
This advanced level course includes a review of the skills taught in COLLEGE READING IMPROVEMENT II with an additional focus on critical reading skills along with vocabulary development, memory techniques, rate improvement and analytical skills. 2 hrs./wk. (CLC 5375)

LC 145
WRITING STRATEGIES (5CR)
This course assists students in writing sentences and paragraphs. Emphasis is on self-monitoring of errors in written work. It is designed to develop confidence and competence for the reluctant writer who has not been successful in traditional English/composition classes. 5 hrs. lecture/wk.

LC 150
JOB SEARCH SKILLS (1CR)
Job-hunting techniques will be explored in this class. Class consists of lecture, assignments and role playing. In class, students will develop a resume, complete job applications and practice interviewing. 1 hr./wk. (CLC 1300)

MANUFACTURING TECHNOLOGY

MFTG 121
MANUFACTURING PROCESSES AND TESTING (3CR)
This is an overview of manufacturing materials, processes and testing procedures used in industry. Students will examine the capabilities of press shop, machine tool, general fabrication, welding processes, robotics, cut-off equipment and other manufacturing processes and equipment. Destructive and non-destructive testing methods will be demonstrated. 3 hrs. lecture-demonstration/wk. (TMF 8033)
MFTG 122
ROBOTICS (2CR)
The operation and maintenance of industrial robots will be examined. Topics include controlled path motion, control panel and teach pendant operations, teaching functions, commands, hydraulics, control modules, interfacing and alignments. 2 hrs. lecture-independent study/wk. (TMF 3462)

MFTG 124
ROBOTIC APPLICATIONS (2CR)
Prerequisite: MFTG 122
Students will actually operate industrial welding robots in this class. They will use industrial welding robots, positioning table, welding equipment and appropriate interfacing to program and weld actual parts. 4 hrs. lecture-lab/wk. (TMF 3463)

MFTG 126
MACHINE TOOL PROCESSES I (3CR)
The principles and practices of machining and the setup and operation of machines will be explained. In the lab students will use lathes, mills, drills, cut-off and other types of equipment. 1 hr. lecture, 6 hrs. lab/wk. (TMF 8034)

MFTG 128
MACHINE TOOL PROCESSES II (3CR)
Prerequisite: MFTG 126
The set-up and operation of machine tools will be addressed in this class. Students will study lathes, mills, drills, cut-off and other types of equipment and will be allowed to specialize in one or more machines. 1 hr. lecture, 6 hrs. lab/wk. (TMF 8035)

MFTG 132
METALLURGY (1CR)
This basic metallurgy course deals with iron and steel, properties of metals, types of classifications, heat treatment procedures and common processes of steel. 1 hr./wk. (TMF 8036)

MFTG 135
TESTING AND INSPECTION (3CR)
In this course on the use of materials in technology, students will study materials, how they are used and how they perform under different load and environmental conditions. They also will study the size and shape of good designs; precision tool measurement; safety practices; and testing methods and procedures for various materials. 1 hr. lecture, 6 hrs. lab/wk. (TMF 8016)

MFTG 271
MANUFACTURING TECHNOLOGY
COORDINATE EDUCATION I (2-9CR)
Prerequisites: 10 credit hours of Manufacturing Technology courses and division director approval
This program provides advanced students with on-the-job training under the supervision of industrial professionals. The work experience will be developed cooperatively among area employers, college staff and the student to provide a variety of actual job experiences directly related to the student's personal career goals. 1 hr. lecture, 6-27 hrs. lab/wk. (TMF 6826)

MFTG 272
MANUFACTURING TECHNOLOGY
COORDINATE EDUCATION II (2-9CR)
Prerequisite: MFTG 271 and division director approval.
This program provides advanced students with on-the-job training under the supervision of industrial professionals. The work experience will be developed cooperatively among area employers, college staff and the student to provide a variety of actual job experiences directly related to the student's personal career goals. 1 hr. lecture, 6-27 hrs. lab/wk.

MFTG 273
MANUFACTURING TECHNOLOGY
COORDINATE EDUCATION III (2-9CR)
Prerequisite: MFTG 272 and division director approval.
This program provides advanced students with on-the-job training under the supervision of industrial professionals. The work experience will be developed cooperatively among area employers, college staff and the student to provide a variety of actual job experiences directly related to the student's personal career goals. 1 hr. lecture, 6-27 hrs. lab/wk.

MARKETING MANAGEMENT

MKT 121
RETAILING (3CR)
The organization and operation of a retail store — including location, layout, retail buying, human relations, employee supervision, pricing and merchandising — will be covered. 3 hrs./wk. (BMM 1206)

MKT 122
RETAIL ADVERTISING AND DISPLAY (3CR)
In this class on advertising and display techniques, emphasis will be on media selection and use, copywriting, ad layout and illustration, showcard writing, display techniques, sales promotion, budgeting and scheduling. 3 hrs./wk. (BMM 1303)

MKT 133
SALESMANSHIP (3CR)
Students will prepare presentations in specialty, wholesale and industrial areas of selling. Class includes projects, case problems and speakers. 3 hrs./wk. (BMM 5206)

MKT 134
CREATIVE RETAIL SELLING (3CR)
Students will analyze the techniques of the sale in this class. Case problems will highlight such areas as sales demonstrations and presentations, handling objections and customer complaints, suggestive selling and closing the sale. 3 hrs./wk. (BMM 2407)
MKT 221  
SALES MANAGEMENT (3CR)  
Prerequisite: MKT 134 or MKT 133  
Managing the sales force is the topic of this class. Topics include recruitment and selection of salespeople, training, compensation and motivation. Sales forecasting, sales planning and ethics in different fields will be reviewed. 3 hrs./wk. (BMM 2370)

MKT 271  
MARKETING AND MANAGEMENT SEMINAR: ORGANIZATION AND OPERATION (2-3CR)  
Prerequisite: Admission to the Marketing and Management Program  
Students will work under supervision in an approved business where they will prepare a series of training reports based on employers' operation policies and internal organization and structure. 2 hrs. class, a minimum of 15 hrs. on-the-job training by arrangement/wk. (BMM 3877)

MKT 272  
MARKETING AND MANAGEMENT SEMINAR: MANAGEMENT DECISION MAKING (2-3CR)  
Prerequisite: Admission to the Marketing and Management Program  
Students will work under supervision in an approved business concentrating on making managerial decisions regarding human relations and merchandising problems. They will take part in sales and training meetings in the areas of marketing and management. 2 hrs. class, a minimum of 15 hrs. on-the-job training by arrangement/wk. Fall. (BMM 3874)

MKT 273  
MARKETING AND MANAGEMENT SEMINAR: MARKETING RESEARCH (2-3CR)  
Prerequisite: Admission to the Marketing and Management Program  
Students will work under supervision in an approved business where they will do market research for potential new businesses, concentrating on finding, identifying and determining the needs of individuals and organizations. 2 hrs. class, a minimum of 15 hrs. on-the-job training by arrangement/wk. Spring. (BMM 3875)

MKT 274  
MARKETING AND MANAGEMENT SEMINAR: MANAGEMENT (2-3CR)  
Prerequisite: Admission to the Marketing and Management Program  
Students will work under supervision in an approved business where they will prepare an advertising campaign related to the student's preferred career area. They will also apply sales management concepts to personal selling and mass sales promotion. 2 hrs. class, a minimum of 15 hrs. on-the-job training by arrangement/wk. Spring. (BMM 3873)

MATH 111  
FUNDAMENTALS OF MATH (3CR)  
This is a review of fractions, decimals and whole numbers, numeration, percent, dimensions and linear equations. 3 hrs./wk. (MTH 2122)

MATH 115  
INTRODUCTION TO ALGEBRA (3CR)  
Prerequisite: Appropriate score on math assessment test  
The class will cover fundamental algebraic operations, fractions, first- and second-degree equations, graphs, exponents and radicals. 3 hrs./wk. (MTH 7246)

MATH 116  
INTERMEDIATE ALGEBRA (3CR)  
Prerequisite: MATH 115 or appropriate score on math assessment test  
Polynomials, rational expressions, radicals, equations and inequalities, graphing, relations, functions and systems of equations will be covered. 3 hrs./wk. (MTH 3001)

MATH 120  
BUSINESS MATH (3CR)  
Prerequisite: MATH 111 or appropriate score on math assessment test  
A course in basic business mathematics, BUSINESS MATH deals with decimals, percentages and everyday problems dealing with the math of business. 3 hrs./wk. (MTH 4298)

MATH 122  
MATHEMATICS IN OUR CULTURE (3CR)  
Prerequisite: MATH 111 or appropriate score on math assessment test  
This is a course about the extent, power and history of many interesting areas of mathematics. Topics include mathematical reasoning and recreation, calculator activities, computer literacy, mathematics in art and music, probability, statistics and topology. 3 hrs. lecture/wk. (MTH 1842)

MATH 125  
MATH FOR MODERN LIVING (3CR)  
Prerequisite: MATH 111 or appropriate score on math assessment test  
Topics include deductive reasoning, sets, equation solving, measurement, number sequences, linear programming, computers, calculators, probability and statistics, and graphing. 3 hrs./wk. (30 30-minute modules when offered on cable TV). (MTH 4419)
**MATH 127**
MODERNIZED METRIC SYSTEM (1CR)
The international metric system is the focus of this class. Topics include length, mass, volume, temperature and appropriate prefixes. 1 hr./wk. (MTH 3609)

**MATH 133**
TECHNICAL MATHEMATICS I (3CR)
Prerequisite: MATH 111 or appropriate score on math assessment test
Students will explore International Standard measurement, percent, proportion, linear equations and graphs, formulation, exponents, radicals, scientific notation, basic algebra and geometry. Emphasis is on how these concepts can be applied in industry. 3 hrs./wk. (MTH 5722)

**MATH 134**
TECHNICAL MATHEMATICS II (5CR)
Prerequisite: MATH 133 or equivalent
This is a review of plane and solid geometry quantification; quadratic equations and graphs; trigonometric functions and laws; vectors and complex numbers; and exponential and logarithmic equations and graphs. 5 hrs./wk. (MTH 5387)

**MATH 143**
MATH FOR ELECTRONICS I (5CR)
Prerequisite: MATH 111 or appropriate score on math assessment test
The role algebra plays in understanding and solving problems with electronic circuits is the focus of this course. 5 hrs./wk. (MTH 9000)

**MATH 144**
MATH FOR ELECTRONICS II (4CR)
Prerequisite: MATH 143 or equivalent
Trigonometry will be applied to AC circuits, computer number systems and digital math concepts. 5 hrs./wk. (MTH 9001)

**MATH 153**
COMPUTER MATHEMATICS I (4CR)
Prerequisite: MATH 116
This is an introduction to problem-solving using computers, especially microcomputers. Students will use basic programming skills to set up problems. The class will introduce numerical algorithms, errors, roots of equations, interpolation, systems of equations and linear programming. 3 hrs./wk. Lab by arrangement (MTH 6245)

**MATH 154**
COMPUTER MATHEMATICS II (4CR)
Prerequisite: MATH 153
This is the second course in a two-semester series on computer science. Students will discover, with the help of the computer, facts and concepts in algebra, number theory, finite math, calculus and other special topics. 3 hrs./wk. Lab by arrangement (MTH 6246)

**MATH 160**
ALGEBRA (5CR)
Prerequisite: MATH 116 or appropriate score on math assessment test
There will be an extensive review of fundamental algebraic operations in this class. Also included will be a study of polynomial, rational, exponential and logarithmic functions; systems of equations; matrices and determinants; sequences and series; and the binomial theorem. 5 hrs./wk. (MTH 6079)

**MATH 171**
COLLEGE ALGEBRA (3CR)
Prerequisite: MATH 116 or two years of high school algebra or appropriate score on math assessment test
This is a study of polynomial, rational, exponential and logarithmic functions; systems of equations; conics; determinants; sequences and series; combinations; and binomial theorem. 3 hrs./wk. (MTH 3427)

**MATH 172**
TRIGONOMETRY (3CR)
Prerequisite: MATH 153, 154 or 160 or Math 171
Students will study trigonometric functions, identities, graphs, equations, inverse trigonometric functions, polar coordinates, complex numbers and applications. 3 hrs./wk. (MTH 2594)

**MATH 181**
STATISTICS (3CR)
Prerequisite: MATH 116 or appropriate score on math assessment test
Students will review and apply such concepts as descriptive statistics, probability, sampling, distributions, estimation, hypothesis testing, regression and correlation. 3 hrs./wk. (MTH 2084)

**MATH 190**
GEOMETRY (2CR)
Prerequisite or corequisite: MATH 115 or appropriate score on math assessment test
This intuitive approach to geometry is for students who did not take geometry in high school. Topics include lines, polygons, area, volume, circles, similarity, congruence and coordinate geometry. 2 hrs./wk. (MTH 3000)

**MATH 231**
CALCULUS I (3CR)
Prerequisites: MATH 171 or appropriate score on math assessment test
This is the first course in a two-semester series on calculus. It will cover differentiation of algebraic, exponential and logarithmic functions used in business, biology and the social sciences. 3 hrs./wk. (MTH 6463)

**MATH 232**
CALCULUS II (3 CR)
Prerequisites: MATH 231 and MATH 172 or concurrent enrollment in MATH 172
This is the second course in a two-semester series on
calculus. It will cover techniques of integration, differentiation and integration of trigonometric functions, differential equations and functions of several variables. This information can be applied to business, statistics, biology and the social sciences. 3 hrs./wk. (MTH 5329)

MATH 241
ANALYTIC GEOMETRY - CALCULUS I (5CR)
Corequisite: MTH 172
This is the first course in a three-semester series on analytic geometry and calculus. Students will study and apply elements of plane analytic geometry and the differentiation and integration of algebraic functions. 5 hrs./wk. (MTH 3268)

MATH 242
ANALYTIC GEOMETRY - CALCULUS II (5CR)
Prerequisite: MATH 241 or appropriate score on math assessment test
This is the second in a three-semester series on analytic geometry and calculus. Topics include Riemann integral equations, differentiation and integration of transcendental functions, techniques of integration, polar coordinates, and applications. 5 hrs./wk. (MTH 4313)

MATH 243
ANALYTIC GEOMETRY - CALCULUS III (5CR)
Prerequisite: MATH 242 or appropriate score on math assessment test
This is the third course in a three-semester series on analytic geometry and calculus. Topics include solid analytic geometry, vectors in space, infinite series, partial differentiation, multiple integration infinite series and limits. 5 hrs./wk. (MTH 6357)

MATH 244
DIFFERENTIAL EQUATIONS (3CR)
Prerequisite: MATH 243 or appropriate score on math assessment test
DIFFERENTIAL EQUATIONS covers standard types of ordinary equations, second and higher order linear equations, systems of linear equations, solutions by series, the Laplace transform and applications. 3 hrs./wk. Spring. (MTH 3675)

MATH 281
COMPUTER-ASSISTED LEARNING: BASIC (1-3CR)
The computer will progressively instruct the student in BASIC using a conversational approach. Apple's sound and graphics capabilities also will be included. Emphasis will be on how BASIC commands and statements work together to form programs. 1-3 hrs./wk. (MTH 8400)

MATH 281
HONORS PROJECT IN MATHEMATICS (1-2CR)
Prerequisite: Approval of division director
Students will work on special interest projects approved and monitored by an instructor and tailored to the abilities and interests of the student. Projects will involve computer work. 2-4 hrs. lab/wk. (MTH 2009)

MEDICAL LABORATORY TECHNICIAN

KMLT 100
INTRODUCTION TO THE CLINICAL LAB (1CR)
Prerequisite: High school algebra
Students will study the organization of the lab and career opportunities in the field. They also will examine and use laboratory calculations. 1 hr./wk. (NLT 9760)

KMLT 101
FUNDAMENTAL TECHNIQUES AND PROCEDURES (3CR)
Students will study and perform fundamental procedures in the lab, examine pathologic disease states and apply quality control principles to clinical procedures. 4 hrs./wk. (NLT 9761)

KMLT 102
CLINICAL CHEMISTRY (4CR)
The student will review and integrate specific pathologic conditions with chemical procedures. 3 hrs./wk. (NLT 9764)

KMLT 103
HEMATOLOGY (3CR)
Prerequisite: Completion of first year of the Medical Laboratory Technology Program or approval of division director
This course involves a thorough study of the formed blood cell elements and their relation to specific pathologic processes. The course also will cover hemostasis and coagulation. (NLT 9765)

KMLT 104
DEPARTMENTAL SEMINAR (3CR)
Students will study in class and in a lab pathological conditions of the kidney and urinary tract. The course also includes a review of specialized areas of laboratory medicine. 3 hrs./wk. (NLT 9767)

KMLT 105
APPLIED IMMUNOLOGY (3CR)
Prerequisite: Completion of the first year of Medical Laboratory Technology Program or permission of division director
The immunological and immuno-hematological functions in vivo and in vitro conditions will be the focus of this class. 3 hrs./wk. (NLT 9768)

KMLT 106
DIAGNOSTIC MICROBIOLOGY (3CR)
Prerequisite: KMLT 100, KMLT 101, KMLT 102
This course involves a thorough study of bacteria and the role bacteria play in various diseases. 3 hrs./wk. (NLT 9762)

You must file a written notice of intent to graduate in the Admissions Office by Nov. 1 for fall graduation, April 1 for spring graduation, July 15 for summer graduation.
KMLT 107
DIAGNOSTIC PARASITOLOGY AND MYCOLOGY (1CR)
Prerequisite: KMLT 100, KMLT 101, KMLT 102, BIOL 230, BIOL 231
Students will study pathological parasitic and mycotic infections in humans, and how they relate to specific diseases and treatment. 1 hr./wk. (NLT 9759)

KMLT 203
CLINICAL PRACTICUM I (5CR)
Prerequisite: KMLT 100, KMLT 101, KMLT 102
Under supervision, students will observe, practice and perform laboratory procedures in a clinical setting. The student will be expected to apply classroom knowledge to clinical procedures. 35 hrs./wk. (NLT 9763)

KMLT 205
CLINICAL PRACTICUM II (10CR)
Prerequisite: KMLT 203
Students will observe, practice and apply both manual and automated techniques of hematology and clinical chemistry. 35 hrs./wk. (NLT 9766)

KMLT 206
CLINICAL PRACTICUM III (10CR)
Prerequisite: KMLT 205
Students will observe, practice and apply techniques of immunology, urinalysis and other specialty areas of the clinical laboratory. 35 hrs./wk. (NLT 9769)

MEDICAL RECORDS TECHNOLOGY

MRT 110
MEDICAL TERMINOLOGY I (2CR)
In this self-instructional approach, students will use a handbook and tapes to build a medical vocabulary. Definition, spelling and pronunciation will be stressed. Students will select systems from six areas: respiratory, circulatory, digestive, musculoskeletal, genito-urinary and nervous systems. By arrangement. (NS 5381)

MRT 112
MEDICAL TERMINOLOGY II (1CR)
Prerequisite: MRT 110
In this continuation of Medical Technology I, students may choose any two areas not previously studied. By arrangement. (NS 6476)

MRT 114
MEDICAL TERMINOLOGY III (1CR)
Prerequisite: MRT 112
In this continuation of Medical Technology II, students may choose any two areas not previously studied. By arrangement (NS 4165)

MRT 116
MEDICAL TERMINOLOGY IV (3CR)
Prerequisite: BIOL 144 and MRT 120 and no grade below a "C" in prerequisite courses
This is a review of anatomical roots, prefixes and suffixes; descriptive terms; laboratory tests; diseases; and operations for each system of the body. 3 hrs./wk. (NS 2686)

MRT 120
INTRODUCTION TO THE MEDICAL RECORD PROFESSION (2CR)
Prerequisite: Admission to the Medical Record Technology Program
This orientation to the medical record profession addresses such topics as the language of medicine, ethics, the history of medicine, hospital and medical staff organization and the function and roles of health professionals. 2 hrs./wk. (NMR 1135)

MRT 124
HEALTH RECORD SYSTEMS ANALYSIS AND CONTROLS (6CR)
Prerequisite or corequisite: MRT 120 or approval of division director
This is an in-depth study of the storage, retrieval and control of various medical record systems. It will explain the content, use and preservation of medical records. It also will explain accrediting, licensing and approval agencies' requirements for documentation and information systems. 4 hrs./wk. (NMR 2681)

MRT 131
HEALTH STATISTICS AND RESEARCH METHODS (2CR)
Prerequisite: MRT 120 or division director approval
The uses and value of vital health statistics will be introduced. Also covered will be the collection and presentation of data from medical records and other sources. 3 hrs./wk. (NMR 2685)

MRT 133
SELECTED HEALTH RECORD SYSTEMS (2CR)
Prerequisites: MRT 120, MRT 124 and no grade below a "C"
Corequisites: MRT 271, MRT 131
An overview of alternative health care programs, this course emphasizes record keeping systems; requirements of accrediting, approving and certifying agencies; and specialized health information registries. 2 hrs./wk.

MRT 137
MEDICAL TRANSCRIPTION (3CR)
Prerequisites: 40 wpm proficiency for Medical Records program, 65 wpm proficiency for Medical Transcript program
An introduction to machine transcription of medical reports, this course provides a study of medical terminology in conjunction with machine transcription. 5 hrs./wk. (BSC 4715)

If you are a veteran, a counselor must approve all courses and programs before you register.

Some of the Medical Records Technology Program courses are held at Baptist Medical Center, in Kansas City, Mo.
MRT 220
CLASSIFICATIONS, NOMENCLATURES, INDICES AND REGISTRIES (2CR)
Prerequisite: NMR 124, MRT 116 and BIOL 144 and no grade below a “C” in prerequisite courses
This is a study of the various nomenclatures of diseases and operations, index and registers with specific emphasis on ICD-9-CM classification system. 4 hrs./wk. (NMR 2682)

MRT 224
QUALITY ASSURANCE (2CR)
Prerequisites: NRT 124, MRT 131, BIOL 144, MRT 271, MRT 133 and no grade below a “C” Corequisite: MRT 220
This introduction to the quality assurance concept includes information on federal, state and local regulations as they apply to quality assurance in health care. Students will study and apply activities and assessment techniques. 3 hrs./wk. (NMR 2683)

MRT 231
LEGAL ASPECTS OF MEDICAL RECORDS (2CR)
Prerequisite: MRT 133 with no grade below a “C”
This is an investigation of federal and state judicial opinions, statutes, rules and regulations regarding medical records. The disclosure of confidential information also will be examined. 2 hrs./wk. (NMR 2684)

MRT 271
MEDICAL TRANSCRIPTION PRACTICUM (4CR)
Prerequisites: MRT 137, MRT 116, MRT 124
In a supervised work situation students will use transcribing equipment to type medical reports dictated by physicians. By arrangement. (NMT 3413)

MRT 281
DIRECTED PRACTICE I (3CR)
Prerequisite: MRT 124, BIOL 144 and with no grade below a “C” in prerequisite courses
Corequisites: MRT 131, MRT 116
Students will work in the program laboratory and in actual medical records departments, developing their skills in the areas of numbering and filing systems, health data collections and presentations, medical record processing and patient registration. By arrangement. (NMR 7111)

MRT 282
DIRECTED PRACTICE II (4CR)
Prerequisites: MRT 281, MRT 133 and no grade below a “C” in prerequisite courses
Corequisite: MRT 220
Students will gain experience in the areas of coding and abstracting health information, tumor registry, medical transcription and completion policies. By arrangement. (NMR 1325)

MRT 283
DIRECTED PRACTICE III (5CR)
Prerequisites: MRT 272, MRT 137, BUS 243, DP 124
Corequisites: MRT 231, BIOL 210
Students will work in the program laboratory and in medical record departments, applying classroom theory. By arrangement. (NMR 3117)

MENTAL HEALTH TECHNOLOGY

MHT 125
MENTAL HEALTH TECHNOLOGY I (4CR)
Prerequisite: Admission to the Mental Health Technology Program
In a supervised practicum, students will assess normal body functioning; measure comfort, safety and hygiene; and observe and record. They also will concentrate on nutrition, pharmacology and lifesaving measures. This course fulfills requirements for certification in first aid and cardiopulmonary resuscitation. 6 hrs./wk. (NMM 8881)

MHT 130
MENTAL HEALTH TECHNOLOGY II (6CR)
Prerequisite: MHT 125
In this clinical practicum, students will study the patterns of behavior associated with mental illness. Students will have contact with young and adult psychiatric patients, the elderly, the mentally retarded and patients suffering from substance abuse. 11 hrs./wk. (NMM 2883)

MHT 225
MENTAL HEALTH TECHNOLOGY III (6CR)
Prerequisite: MHT 130
MENTAL HEALTH TECHNOLOGY III is an in-depth study of patterns of behavior and treatment associated with mental illness. In a clinical practicum, students will deal with adults with psychiatric disorders and with emergency social problems. They also will address the care of adults with physiological diseases; basic pharmacology; and drug administration. 10 hrs./wk. (NMM 7884)

MHT 230
MENTAL HEALTH TECHNOLOGY IV (7CR)
Prerequisite: MHT 225
The focus is on the nursing care of children and adults with emotional disorders. Students will gain experience administering drugs. 13 hrs./wk. (NMM 4885)

METAL FABRICATION

MFAB 121
INTRODUCTION TO WELDING (3CR)
This is a beginning course in oxy-fuel cutting, oxy-fuel welding and brazing and shielded metal arc welding (SMAW). The SMAW portion will cover all positions but will be limited to fillet welds. All welds will be tested according to industry standards. 6 hrs. lecture-lab/wk. (TMM 8031).
MFAB 125
ADVANCED GAS AND ARC WELDING (3CR)
Prerequisite: MFAB 121
Focus is on the theory and practice of out-of-position oxy-fuel welding; oxy-fuel brazing; shielded metal arc welding (SMAW) of v-butt plate in five positions; basic air-arc cutting and gouging; and certification requirements with root and face bend tests being performed according to industry standards. 6 hrs. lecture-lab/wk. (TMF 8021).

MFAB 130
MIG AND TIG I (3CR)
Students will explore the theory of gas metal arc welding (GMAW) and gas tungsten arc welding (GTAW), also known as MIG and TIG; GTAW on mild steel; GTAW on aluminum; and GMAW on steel. In the lab, students will use welding symbols, read blueprints and test welds. 6 hrs. lecture-lab/wk. (TMF 8019).

MFAB 140
INTRODUCTION TO METAL FABRICATION (3CR)
Students will have the opportunity to learn basic welding procedures, sheet metal work and other metal trades and how they interrelate with other technologies. They also will study how to safely handle materials; the compatibility of materials; and finish methods and how they work. 1 hr. lecture, 6 hrs. lab/wk. (TMF 8025).

MFAB 230
MIG AND TIG II (3CR)
Prerequisite: MFAB 130
This is a review of the theory of GMAW and GTAW, GTAW on stainless steel, flux cored arc welding (FCAW) on steel, GMAW on aluminum and GMAW on steel. 6 hrs. lecture-lab/wk. (TMF 8020).

MFAB 232
SHEET METAL PATTERN AND DEVELOPMENT (3CR)
Prerequisite: DRAF 261 or DRAF 132
Students will use layouts they have drawn in DRAF 261 to produce actual sheet metal developments. They also will learn to make layouts directly on the metal used to produce transition pieces and cuctwork. 1 hr. lecture, 6 hrs. lab/wk. (TMF 8032).

MUSIC

MUS 121
INTRODUCTION TO MUSIC LISTENING (3CR)
Emphasis will be on listening in this survey of the development of music. Students will hear recorded medieval, Renaissance, Baroque, classical, Romantic and contemporary music including popular American forms. 3 hrs./wk. (HMU 8927)

MUS 123
INTRODUCTION TO MUSIC FUNDAMENTALS (2CR)
This class is for the elementary classroom teacher or music student without a background in theory. It will cover notation of melody, rhythm, meter and musical terminology. 2 hrs./wk. (HMU 7669)

MUS 125
INTRODUCTION TO JAZZ LISTENING (3CR)
Listening will be emphasized in this introduction to the history of jazz in America. Focus will be on trends, periods and styles. 3 hrs./wk. (HMU 2777)

MUS 131
SIGHT-SINGING AND EAR TRAINING I (2CR)
Students will combine aural and sight-reading skills in this course on the melodic, harmonic and rhythmic elements of music. 2 hrs./wk. (HMU 7656)

MUS 132
SIGHT-SINGING AND EAR TRAINING II (2CR)
Prerequisite: MUS 131
This is a continued study of the melodic, harmonic and rhythmic elements of music, integrating aural and sight-reading skills. 2 hrs./wk. (HMU 5107)

MUS 133
SIGHT-SINGING AND EAR TRAINING III (2CR)
Prerequisite: MUS 132
This is a continued advanced study of the melodic, harmonic and rhythmic elements of music. 2 hrs./wk. (HMU 3628)

MUS 134
SIGHT-SINGING AND EAR TRAINING IV (2CR)
Prerequisite: MUS 133
In this advanced study, students will continue working on aural and sight-reading skills through melodic and harmonic dictation. 2 hrs./wk. (HMU 7563)

MUS 141
MUSIC THEORY: HARMONY I (2CR)
The fundamentals of music will be reviewed and melodic line construction, triads and the connection of chords in four-part music writing will be introduced. 2 hrs./wk. (HMU 5010)

MUS 142
MUSIC THEORY: HARMONY II (2CR)
Prerequisite: MUS 141
Students will continue their work with melodic line, triads and connection of chords in four-part music writing. Emphasis will be on inverted triads and seventh chords. Elementary modulation will be introduced. 2 hrs./wk. (HMU 3559)

MUS 143
MUSIC THEORY: HARMONY III (2CR)
Prerequisite: MUS 142
Students will continue working with modulation, nonharmonic tones and inverted triads in four-part music writing. The class introduces less common chord progressions, diatonic seventh chords, altered chords and borrowed chords with emphasis on original student composition. 2 hrs./wk. (HMU 6514)
MUS 144
MUSIC THEORY: HARMONY IV (2CR)
Prerequisite: MUS 143
Students will continue working with original compositions in this introduction to augmented triads; Neapolitan, French and German sixth chords; chords at ninth, eleventh, thirteenth, advanced modulation and basic counterpoint. 2 hrs./wk. (HMU 2270)

MUS 151
MIXED VOCAL ENSEMBLE I (1CR)
Any student may participate in this class involving rehearsal and performance of vocal music. The ensemble will perform some contemporary jazz and pop music and occasionally perform with the chamber choir. 3 hrs./wk. (HMU 9028)

MUS 152
MIXED VOCAL ENSEMBLE II (1CR)
Prerequisite: MUS 151
This is a continuation of MIXED VOCAL ENSEMBLE I. 3 hrs./wk. (HMU 9029)

MUS 153
MIXED VOCAL ENSEMBLE III (1CR)
Prerequisite: MUS 152
This is a continuation of MIXED VOCAL ENSEMBLE II. 3 hrs./wk. (HMU 9030)

MUS 154
MIXED VOCAL ENSEMBLE IV (1CR)
Prerequisite: MUS 153
This is a continuation of MIXED VOCAL ENSEMBLE III. 3 hrs./wk. (HMU 9031)

MUS 161
CHAMBER CHOIR I (1CR)
Prerequisite: Audition
Students will study and rehearse a variety of quality vocal music and perform at various student and community activities. 3 hrs./wk. (HMU 6529)

MUS 162
CHAMBER CHOIR II (1CR)
Prerequisite: MUS 161
This is a continuation of CHAMBER CHOIR I. 3 hrs./wk. (HMU 2305)

MUS 163
CHAMBER CHOIR III (1CR)
Prerequisite: MUS 162
This is a continuation of CHAMBER CHOIR II. 3 hrs./wk. (HMU 7542)

MUS 164
CHAMBER CHOIR IV (1CR)
Prerequisite: MUS 163
This is a continuation of CHAMBER CHOIR III. 3 hrs./wk. (HMU 1208)

MUS 171
APPLIED VOICE I (Class) (1CR)
This class offers instructions on singing from the beginning stages. 1 hr./wk. (HMU 1763)

MUS 172
APPLIED VOICE II (Class) (1CR)
Prerequisite: MUS 171
(HMU 2764)

MUS 173
APPLIED VOICE III (Class) (1CR)
Prerequisite: MUS 172
(HMU 4765)

MUS 174
APPLIED VOICE IV (Class) (1CR)
Prerequisite: MUS 173
(HMU 5766)

MUS 181
STUDENT JAZZ ENSEMBLE I (2CR)
Prerequisite: Audition
Ensemble will perform jazz and popular music at festivals, public concerts and college functions. 6 hrs./wk. (HMU 6410)

MUS 182
STUDENT JAZZ ENSEMBLE II (2CR)
Prerequisite: MUS 181
This class consists of continued performances of jazz and popular music at festivals, public concerts and college functions. 6 hrs./wk. (HMU 6411)

MUS 183
STUDENT JAZZ ENSEMBLE III (2CR)
Prerequisite: MUS 182
This class consists of continued performances of jazz and popular music at festivals, public concerts and college functions. 6 hrs./wk. (HMU 6412)

MUS 184
STUDENT JAZZ ENSEMBLE IV (2CR)
Prerequisite: MUS 183
Students will continue to perform jazz and popular music at public concerts, festivals and college functions. 6 hrs./wk. (HMU 6413)

MUS 187
JAZZ IMPROVISATION I (2CR)
Prerequisite: High school playing experience
This is a fundamental approach to rhythm and melodic lines involved in creative improvisation. Basic procedures for analyzing chords and chord structures will serve as an outline for organized spontaneous playing. 2 hrs./wk. (HMU 2262)

The Library uses the Checkpoint Book Security System which protects both print and non-print materials.
MUS 188
JAZZ IMPROVISATION II (2CR)
Prerequisite: MUS 187
This continuation of JAZZ IMPROVISATION I focuses on creative improvisation and procedures for analyzing chord structures as an outline for organized spontaneous playing. 2 hrs./wk. (HMU 1245)

MUS 181
BAND I (1CR)
Prerequisite: High school playing experience
Concert band repertoire — especially early works and original contemporary selections — will be the basis of these performances. 3 hrs./wk. (HMU 8008)

MUS 192
BAND II (1CR)
Prerequisite: MUS 191 or by permission
This is a continuation of BAND I. 3 hrs./wk. (HMU 8009)

MUS 183
BAND III (1CR)
Prerequisite: MUS 192 or by permission.
This is a continuation of Band II. 3 hrs./wk. (HMU 8010)

MUS 194
BAND IV (1CR)
Prerequisite: MUS 193 or by permission.
This is a continuation of BAND III. 3 hrs./wk. (HMU 8011)

MUS 201
CHAMBER ENSEMBLE I (1CR)
Prerequisite: High school playing experience or equivalent
Students will study and perform standard literature for ensembles: brass, woodwind, jazz combo and percussion. 2 hrs./wk. (HMU 3146)

MUS 202
CHAMBER ENSEMBLE II (1CR)
Prerequisite: MUS 201
This is a continuation of CHAMBER ENSEMBLE I. 2 hrs./wk. (HMU 4166)

MUS 203
CHAMBER ENSEMBLE III (1CR)
Prerequisite: MUS 202
This class is a continuation of CHAMBER ENSEMBLE II. 2 hrs./wk. (HMU 5202)

MUS 204
CHAMBER ENSEMBLE IV (1CR)
Prerequisite: MUS 203
This class is a continuation of CHAMBER ENSEMBLE III. 2 hrs./wk. (HMU 6213)

MUS 211
ORCHESTRA I (1CR)
Prerequisite: Audition
Students will rehearse and perform with the Overland Park Civic Orchestra. 2 hrs./1 evening per wk. (HMU 3671)

MUS 212
ORCHESTRA II (1CR)
Prerequisite: MUS 211 or audition
This is a continuation of ORCHESTRA I. 2 hrs./1 evening per wk. (HMU 1374)

MUS 213
ORCHESTRA III (1CR)
Prerequisite: MUS 212 or audition
This is a continuation of ORCHESTRA II. 2 hrs./1 evening per wk. (HMU 1049)

MUS 214
ORCHESTRA IV (1CR)
Prerequisite: MUS 213 or audition
This is a continuation of ORCHESTRA III. 2 hrs./1 evening per wk. (HMU 2534)

MUS 216
APPLIED WOODWIND I (Class) (1CR)
In this class, students will be instructed on the wind instrument of their choice. 1 hr./wk. (HMU 7759)

MUS 217
APPLIED WOODWIND II (Class) (1CR)
Prerequisite: MUS 216
1 hr./wk. (HMU 8760)

MUS 218
APPLIED WOODWIND III (Class) (1CR)
Prerequisite: MUS 217
1 hr./wk. (HMU 2761)

MUS 219
APPLIED WOODWIND IV (Class) (1CR)
Prerequisite: MUS 218
1 hr./wk. (HMU 5762)

MUS 221
APPLIED PIANO I (Class) (1CR)
This class offers instruction in playing the piano. 1 hr./wk. (HMU 8767)

MUS 222
APPLIED PIANO II (Class) (1CR)
Prerequisite: MUS 221
1 hr./wk. (HMU 4768)

MUS 223
APPLIED PIANO III (Class) (1CR)
Prerequisite: MUS 222
1 hr./wk. (HMU 8769)
MUS 224
APPLIED PIANO IV (Class) (1CR)
Prerequisite: MUS 223
1 hr./wk. (HMU 5770)

MUS 226
APPLIED GUITAR I (Class) (1CR)
This class offers beginning instruction in playing the
guitar. 1 hr./wk. (HMU 4771)

MUS 227
APPLIED GUITAR II (Class) (1CR)
Prerequisite: MUS 226
1 hr./wk. (HMU 2772)

MUS 228
APPLIED GUITAR III (Class) (1CR)
Prerequisite: MUS 227
1 hr./wk. (HMU 1773)

MUS 229
APPLIED GUITAR IV (Class) (1CR)
Prerequisite: MUS 228
1 hr./wk. (HMU 5774)

MUS 231
APPLIED VOICE I (Private) (1CR)
This instruction in vocal music is private. ½ hr./wk.
by arrangement. (HMU 3779)

MUS 232
APPLIED VOICE II (Private) (1CR)
Prerequisite: MUS 231
(HMU 5780)

MUS 233
APPLIED VOICE III (Private) (1CR)
Prerequisite: MUS 232
(HMU 6781)

MUS 234
APPLIED VOICE IV (Private) (1CR)
Prerequisite: MUS 233
(HUM 4782)

MUS 236
APPLIED PIANO I (Private) (1CR)
Students will be offered private instruction on the
piano. ½ hr./wk. By arrangement (HMU 6783)

MUS 237
APPLIED PIANO II (Private) (1CR)
Prerequisite: MUS 236
½ hr./wk. By arrangement (HMU 1784)

MUS 238
APPLIED PIANO III (Private) (1CR)
Prerequisite: MUS 237
½ hr./wk. By arrangement (HMU 4785)

MUS 239
APPLIED PIANO IV (Private) (1CR)
Prerequisite: MUS 238
½ hr./wk. By arrangement (HMU 8786)

MUS 241
APPLIED GUITAR I (Private) (1CR)
This class offers private instruction on the guitar.
½ hr./wk. By arrangement (HMU 6787)

MUS 242
APPLIED GUITAR II (Private) (1CR)
Prerequisite: MUS 241
½ hr./wk. By arrangement (HMU 1788)

MUS 243
APPLIED GUITAR III (Private) (1CR)
Prerequisite: MUS 242
½ hr./wk. By arrangement (HMU 6789)

MUS 244
APPLIED GUITAR IV (Private) (1CR)
Prerequisite: MUS 243
½ hr./wk. By arrangement (HMU 5790)

MUS 246
APPLIED CLASSICAL GUITAR I (Private) (1CR)
Students will be offered private instruction on classical
guitar. ½ hr./wk. By arrangement (HMU 1791)

MUS 247
APPLIED CLASSICAL GUITAR II (Private) (1CR)
Prerequisite: MUS 246
½ hr./wk. By arrangement (HMU 3792)

MUS 248
APPLIED CLASSICAL GUITAR III (Private) (1CR)
Prerequisite: MUS 247
½ hr./wk. By arrangement (HMU 1793)

MUS 249
APPLIED CLASSICAL GUITAR IV (Private) (1CR)
Prerequisite: MUS 248
½ hr./wk. By arrangement (HMU 2794)

MUS 251
APPLIED BRASS I (Private) (1CR)
Students will be offered private instruction on the
brass instrument of their choice. ½ hr./wk. By
arrangement (HMU 5795)

MUS 252
APPLIED BRASS II (Private) (1CR)
Prerequisite: MUS 251
½ hr./wk. By arrangement (HMU 7796)

MUS 253
APPLIED BRASS III (Private) (1CR)
Prerequisite: MUS 252
½ hr./wk. By arrangement (HMU 9797)

Foreign students must take the Test of English as a
Foreign Language (TOEFL) before being admitted.

JCCC's Child Play Center
may stay open in the
evening if need is shown.
MUS 254
APPLIED BRASS IV (Private) (1CR)
Prerequisite: MUS 253
½ hr./wk. By arrangement (HMU 6798)

MUS 256
APPLIED PERCUSSION I (Private) (1CR)
Students will be offered private instruction on the percussion instrument of their choice. ½ hr./wk. By arrangement (HMU 1799)

MUS 257
APPLIED PERCUSSION II (Private) (1CR)
Prerequisite: MUS 256
½ hr./wk. By arrangement (HMU 6800)

MUS 258
APPLIED PERCUSSION III (Private) (1CR)
Prerequisite: MUS 257
½ hr./wk. By arrangement (HMU 4801)

MUS 259
APPLIED PERCUSSION IV (Private) (1CR)
Prerequisite: MUS 258
½ hr./wk. By arrangement (HMU 1802)

MUS 261
APPLIED WOODWIND I (Private) (1CR)
Students can choose their own woodwind instrument for this private instruction. ½ hr./wk. By arrangement (HMU 2775)

MUS 262
APPLIED WOODWIND II (Private) (1CR)
Prerequisite: MUS 261
½ hr./wk. By arrangement (HMU 8776)

MUS 263
APPLIED WOODWIND III (Private) (1CR)
Prerequisite: MUS 262
½ hr./wk. By arrangement (HMU 7777)

MUS 264
APPLIED WOODWIND IV (Private) (1CR)
Prerequisite: MUS 263
½ hr./wk. By arrangement (HMU 1778)

NURSING

NURS 121
NURSING CARE OF THE INDIVIDUAL:
CONCEPTS OF HEALTH (8CR)
Prerequisite: Admission to the Nursing program
Corequisites: BIOL 140, PSYC 130
The first in a series of four courses, this introduction to nursing emphasizes the maintenance of good health in individuals of various ages. This course also examines the concepts and principles of basic nursing care, providing a foundation for subsequent nursing courses. 4 hrs. class, 12 hrs. lab/wk. Fall. (NRN 8846)

NURS 122
NURSING CARE OF THE INDIVIDUAL:
ADAPTATION TO CHANGE (8CR)
Prerequisite: NURS 121
Corequisites: BIOL 225 and PSYC 151
The second of four sequential courses, this course provides an opportunity for students to explore the impact of change on the individual and families and to apply the nursing process in meeting the needs of individuals. Clinical laboratory practice is an integral part of the course. 4 hrs. class, 12 hrs. clinical lab/wk. Spring. (NRN 3131)

NURS 123
LPN-RN TRANSITION COURSE (8CR)
Prerequisite: Licensing as vocational practical nurse and admission with advanced standing to the nursing program
This is an orientation to the philosophy of the associate degree nursing program for LPNs seeking advanced standing. Topics include group process, relationships, the role of the AD graduate, communication skills and nursing process. Individual assessment and assistance will be emphasized. 24 hrs./wk. for 6 wks. (NRN 3655)

NURS 221
NURSING CARE OF THE INDIVIDUAL:
SHORT-TERM HEALTH PROBLEMS (9CR)
Prerequisites: NURS 122 and PSYC 151
The third in a sequence of four courses, the focus in this course is on the individual whose optimum state of well-being has been altered by a temporary, acute, disruptive problem which requires implementation of the nursing process. Pathophysiology and the application of basic scientific principles in the problem-solving process are stressed. Clinical laboratory experience in health care agencies is an important part of the course. 4 hrs. class, 15 hrs. clinical lab/wk. Fall. (NRN 2847)

NURS 222
NURSING CARE OF THE INDIVIDUAL:
LONG-TERM HEALTH PROBLEMS (9CR)
Prerequisite: NURS 221
The fourth in a sequence of four nursing courses focuses on the individual whose optimum state of well-being has been altered by chronic, progressive, disruptive problems which require implementation of the nursing process. Emphasis is on the concept of rehabilitation, adaptation to a permanently-altered lifestyle and the development and/or reestablishment of independence. The role of the AD graduate seeking employment in the community is stressed. 4 hrs. lecture, 15 hrs. clinical lab/wk. Spring. (NRN 5848)

OCCUPATIONAL THERAPY

KOT 100
INTRODUCTION TO OCCUPATIONAL THERAPY (2CR)
This class is a survey of the profession of occupational therapy and its relation to the health care system. The
role and function of the registered occupational therapist and the certified occupational therapy assistant is presented through films, group discussion, reading assignments and guest lecturers who work in occupational therapy specialty areas. 12 hrs. in occupational therapy clinics required. 2 hrs. class/wk.

KOT 101
OCCUPATIONAL THERAPY GROWTH AND DEVELOPMENT (3CR)
Prerequisite: KOT 100 and admission to program
Physical, perceptual, cognitive, social, intellectual and emotional development during normal growth from pre-natal stages through death is presented. Students are required to observe normal states of growth at day care centers, community centers and work settings. 3 hrs./wk.

KOT 102
OCCUPATIONAL THERAPY IN MENTAL HEALTH (3CR)
Prerequisite: PSYC 130, KOT 101 and a minimum grade of "C"
This course includes a survey of personality disorders, psychoses, adjustment reactions, brain dysfunctions, anxiety disorders, behavioral reactions and substance abuse. Various types of mental health settings and health care professionals are studied. 3 hrs./wk.

KOT 103
CLINICAL CONDITIONS (3CR)
Prerequisite: KOT 100 and admission to program
This course covers both physical and psychosocial dysfunctions commonly referred to and treated by occupational therapists. 2 hrs. lecture, 2 hrs. lab/wk.

KOT 104
THERAPEUTIC MEDIA I (2CR)
Prerequisite: KOT 100
The development of skills in basic craft, recreational and daily living activities used as therapeutic media in occupational therapy settings will be presented. 4 hrs./wk.

KOT 200
PRINCIPLES OF OCCUPATIONAL THERAPY (2CR)
Prerequisite: KOT 100 and admission to program
This course surveys principles and standards in the practice of occupational therapy. Topics presented include writing progress notes, program development and other indirect services. 2 hrs./wk.

KOT 201
OCCUPATIONAL THERAPY IN MENTAL HEALTH II (3CR)
Prerequisite: PSYC 130, KOT 102
This is a continuation of the study of occupational therapy in mental health settings. Discussion will cover evaluations, principles and techniques the occupational therapist uses in the psychiatric setting. The students will observe treatment methods under the supervision of a registered occupational therapist in various local hospitals. 2 hrs. lecture, 6 hrs. lab/wk.

KOT 202
OCCUPATIONAL THERAPY IN PHYSICAL DISABILITIES (5CR)
Prerequisite: KOT 100, KOT 101, KOT 104, BIOL 144
Areas covered in lab and lecture include occupational therapy treatment techniques, methods and adaptive equipment used with the physically disabled. Students will be assigned to various local hospital occupational therapy departments to observe treatment methods under the supervision of a registered occupational therapist. 2 hrs. lecture, 6 hrs. lab/wk.

KOT 203
SHOP PRACTICES/ORTHOTICS (2CR)
Prerequisite: KOT 100 and admission to program
This course includes demonstrations in the use and care of power and hand tools in the fabrication of equipment or devices used in occupational therapy. 4 hrs./wk.

KOT 204
THERAPEUTIC MEDIA II (3CR)
Prerequisite: KOT 103 and art elective
Students will study the characteristics, adaptability and therapeutic use of activities employed in occupational therapy. Instruction in the performance of teaching techniques as they apply to specific conditions also will be included. 1 hr. lecture, 4 hrs. lab/wk.

KOT 205
FIELDWORK IN OCCUPATIONAL THERAPY I (3CR)
Prerequisite: Successful completion of all theory courses with a minimum grade of "C" or approval of division director
This course consists of directed fieldwork experience in the practice of occupational therapy with clients with physical dysfunctioning. 240 clock hours

KOT 206
FIELDWORK IN OCCUPATIONAL THERAPY II (3CR)
Corequisites: Concurrent enrollment in KOT 205 and minimum grade of "C" or approval of division director
This course consists of directed fieldwork experience in the practice of occupational therapy with clients with psychosocial dysfunctioning. 240 clock hours

KOT 207
CLINICAL SEMINAR (2CR)
Corequisites: KOT 205 and KOT 206 or approval of division director
The students will discuss professionalism as well as their experiences in the clinical areas. 2 hrs./wk.

Registration schedules are published in the Credit Bulletin each semester.
PARALEGAL

PL 121
INTRODUCTION TO LAW (3CR)
This introductory study of the legal system covers the nature and functions of law and the operation and structure of state and federal court systems and administrative agencies. Surveys the major areas of substantive law. (Open to students with a general interest in the law and required of students enrolled in the Paralegal Program.) 3 hrs./wk. (BPL 9739)

PL 123
PARALEGAL PROFESSIONAL STUDIES (1CR)
Prerequisite or corequisite: PL 121
Students will discuss the role of legal assistants in the practice of law. They also will review paralegal functions, types of employment, education, licensing, professional ethics, unauthorized practice of law. Class includes an introduction to paralegal skills. 1 hr./wk.

PL 131
LEGAL RESEARCH (3CR)
Corequisite: PL 121 and PL 123 or division director approval
This is a practical approach to legal research problems. Through research projects, students will become familiar with legal publications and how to use them in solving legal problems. Methods and various forms of legal writing also will be discussed. 3 hrs./wk. (BPL 7740)

PL 132
LITIGATION I (3CR)
Prerequisite: PL 121, 123 and PL 131 or division director approval
Civil litigation — especially the practice aspects involved in the trial of a civil lawsuit — will be explored. Includes the study of various types of litigation; Kansas, Missouri and federal civil procedures; trial preparation; and trial and post-trial matters. 3 hrs./wk. (BPL 7917)

PL 152
REAL ESTATE LAW (3CR)
Prerequisites: PL 121 and PL 123 or division director approval
Real property and common types of real estate transactions and conveyances will be examined. The preparation of legal instruments — such as deeds, contracts, leases, deeds of trust and mortgages — will be studied. Students will be involved with projects and practice retrieving and recording information. 3 hrs./wk. (BPL 2828)

PL 162
FAMILY LAW (3CR)
Prerequisite: PL 121 and PL 123 or division director approval
Specific topics in family law covered in this class include adoption, guardianships, child custody and support, name changes, contested and uncontested divorces. Emphasis will be on court forms, preparing pleadings and settlement agreements and using interviewing checklists. 3 hrs./wk. (BPL 1910)

PL 171
LAW OFFICE SYSTEMS (3CR)
Prerequisite: PL 121 and 123 or division director approval
This is a study of the internal function of the law office or legal department. It will address such areas as personnel matters; office systems including docketing and time controls; law library maintenance; filing systems; financial and accounting management; and office equipment. 3 hrs./wk. (BPL 2175)

PL 205
LEGAL WRITING (1CR)
Prerequisite: PL 131
LEGAL WRITING has been designed to acquaint students with specialized legal research and factual research. Emphasis will be on preparing and writing legal briefs and other documents related to legal research. 16 hrs./semester

PL 212
BUSINESS ORGANIZATIONS (3CR)
Prerequisite: PL 121 and PL 123 or division director approval
Business entities — such as corporations, partnerships and sole proprietorships — will be examined. The role of the lawyer and the legal assistant in forming these entities will be discussed along with the legal concepts applicable to each type of organization and the preparation of related documents. 3 hrs./wk. (BPL 3320)

PL 221
COMMERCIAL TRANSACTIONS (1CR)
Prerequisite: PL 121 and PL 123 or division director approval
Personal property contracts — especially documents and forms related to sales and credit transactions — will be explained. This class also will cover preparation of business and commercial documents and the application of Uniform Commercial Code provisions. 16 hrs./semester. (BPL 9918)

PL 232
LITIGATION II (3CR)
Prerequisite: PL 132 or division director approval
In this continuation of LITIGATION I, emphasis will be on the trial and appellate stages of civil litigation. It includes an in-depth preparation of pleadings and related documents. 3 hrs./wk. (BPL 8940)

PL 241
WILLS, TRUSTS AND PROBATE ADMINISTRATION (3CR)
Prerequisite: PL 121 and PL 123 or division director approval
Included in this study of the administration of estates are techniques for fact gathering, inheritance and estate tax principles, use of trusts, will drafting and
probate procedures. Emphasis will be on standard procedures used in assisting lawyers in these areas. 3 hrs./wk. (BPL 7826)

PL 242
ESTATE PLANNING (3CR)
Prerequisite: PL 241 or division director approval
The tax considerations involved in estate planning are reviewed. Topics include the preparation of federal estate tax forms, state inheritance forms, fiduciary income tax returns and drafting trust provisions. 3 hrs./wk. (BPL 2218)

PL 261
RETIREMENT PLANS - QUALIFICATIONS AND ADMINISTRATION (1CR)
Prerequisite: PL 212 or division director approval
This study of qualified retirement plans will emphasize design, fundings and operation. Topics will include preparing documents for qualification, administration and termination. IRAs, KEOGHs and other retirement plans will also be discussed. Class meets 16 hrs./semester. (BPL 4035)

PL 264
WORKERS' COMPENSATION (1CR)
Prerequisite: PL 121 and PL 123 or division director approval
Emphasis in this in-depth study of workers' compensation will be on preparation of claims, benefits, adjudication and administrative procedures. Class meets 16 hrs./semester. (BPL 3866)

PL 268
BANKRUPTCY (1CR)
Prerequisite: PL 121 and PL 123 or division director approval
This in-depth study of bankruptcy law emphasizes the preparation of forms and bankruptcy proceedings. Class meets 16 hrs./semester.

PL 271
SEMINAR: LEGAL INTERVIEWING AND INVESTIGATION (2CR)
Prerequisites: PL 121, PL 123 and 9 credits in other paralegal specialty courses
In this course, students will implement skills acquired in prerequisite courses and study in-depth legal ethics. The course covers legal interviewing and investigation with emphasis on development of related skills. 2 hrs./wk. (BPL 3867)

PL 275
PARALEGAL INTERNSHIP I (1CR)
Prerequisite: PL 271
Students will work in an approved training situation under instructional supervision. This internship is designed to give students the opportunity to apply the skills they acquired in paralegal specialty courses. By arrangement.

PL 276
PARALEGAL INTERNSHIP II (1CR)
Prerequisite: PL 275
Students will work in approved training situations under instructional supervision. The internship is designed to give students the opportunity to apply the skills they acquired in paralegal specialty courses. By arrangement.

PL 298
LEGAL LONDON (2CR)
The areas of London and the British government which relate directly to American law and government will be examined in this course. Contact hrs. (BPL 2105)

PHILOSOPHY

PHIL 121
INTRODUCTION TO PHILOSOPHY (3CR)
Students will examine basic issues of philosophy including the nature of being, methods of acquiring knowledge and the foundation of moral, religious and political beliefs. Emphasis is on the value of philosophical inquiry in today's society. 3 hrs./wk. (HUM 7520)

PHIL 132
LOGIC (3CR)
In this study of informal and formal logic, emphasis is on the nature and structure of arguments, the requirements for evidence and validity, and techniques for assessing the strengths of various forms of arguments. 3 hrs./wk. (HUM 6392)

PHIL 143
ETHICS (3CR)
The great problems of ethics — including free will and determinism, relativism and absolutism, the relationship between individuals and between individuals and society — will be examined. The instructor will explain traditional positions, helping students to understand contemporary social and moral issues. 3 hrs./wk. (HUM 3080)

PHIL 154
HISTORY OF ANCIENT PHILOSOPHY (3CR)
Greek and Roman thought — ranging from speculation about the universe and theories of natural selection and atomism to treatises about the nature of individual existence and society — will be examined. Selections from ancient texts will be used with commentaries where appropriate. 3 hrs./wk. (HUM 5966)

PHIL 165
PHILOSOPHY OF CURRENT CIVILIZATION (3CR)
This is a systematic and critical analysis of selected major current issues in American civilization and the philosophies presupposed by these issues. Students will refer to philosophical articles and news media. 3 hrs./wk. (HUM 2532)

JCCC is the home of the Arts Council of Johnson County.

Call the What's Happening Hotline at 541-3888 for up-to-date information on student activities.
PHIL 176
PHILOSOPHY OF RELIGION (3CR)
This course deals with the following general philosophical questions: What is religion? Do we need religion and, if so, why? What are the differences between the claims made by religion and science? All readings are from contemporary theological and philosophical sources. 3 hrs./wk. (HUM 2541)

PHOTOGRAPHY

PHOT 121
PHOTOGRAPHY I (3CR)
In this introduction to the basic processes and principles of photography, emphasis is on becoming competent in the use of photographic materials and equipment including cameras, light meters, films, filters and chemicals. Students also will develop negatives, print and present photographs. Students must provide their own cameras with adjustable focus, shutter speeds and aperture. 3 hrs. lecture, 3 hrs. lab/wk. (HPH 5555)

PHOT 122
PHOTOGRAPHY II (3CR)
Prerequisite: PHOT 121
Emphasis is on developing professional standards of photographic technique and image quality. Topics include exposure and development control using the "zone system," natural light photography, advanced classroom techniques, chemistry and toning. Basic view camera techniques also will be introduced. 3 hrs. lecture, 3 hrs. lab/wk. (HPH 6666)

PHOT 123
PHOTOGRAPHY III (3CR)
Prerequisite: PHOT 121
This course emphasizes commercial and other forms of applied photography. The class includes view camera techniques and lighting techniques with emphasis on studio lighting, portrait, advertising, illustration and journalistic photography. Color transparency processing also will be introduced. 3 hrs. lecture, 3 hrs. lab/wk. (HPH 3880)

PHOT 134
COLOR TRANSPARENCIES (2CR)
Prerequisite: PHOT 121
The materials, camera techniques, processing and various applications of color transparency film will be explained. Color transparencies used in audio-visual presentations, documentation, commercial illustration, travel photography and other communication will be emphasized. Each student must provide a 35mm camera with adjustable shutter, aperture and focus as well as film, slide mounts and carousel slide trays. 2 hrs. lecture, 2 hrs. lab/wk. (HPH 5481)

PHOT 140
HISTORY OF PHOTOGRAPHY (3CR)
In this survey of the history of photography from the 1830s through today, the technology and aesthetics of photography will be covered and related in an interdisciplinary manner to the broader histories of art, culture and ideas. 3 hrs. lecture/wk. (HPH 4009)

PHOT 141
ISSUES IN CONTEMPORARY PHOTOGRAPHY (3CR)
Prerequisite: PHOT 140
Current photography will be surveyed along with important contemporary photographers, new color photography, recent criticism and photography's relation to art. Photography is viewed in relation to important aspects of modern culture and thought. 3 hrs./wk. (HPH 3417)

PHYSICAL DEVELOPMENT

PD 105
BEGINNING BOWLING (1CR)
The fundamentals of bowling will be introduced along with the history of the sport and the selection, care and proper use of equipment. 2 hrs./wk. (PD 1008)

PD 107
BOWLING (INTERMEDIATE) (1CR)
Advanced skills of league bowling will be introduced and terminology, etiquette and scoring reviewed. 2 hrs./wk. (PD 1009)

PD 110
BEGINNING RACQUETBALL (1CR)
A brief history of rules and terminology will be followed by instruction and actual practice of the fundamentals. 2 hrs./wk. (PD 1010)

PD 112
INTERMEDIATE RACQUETBALL (1CR)
Advanced skills, strategy and patterns of plays will be introduced. 2 hrs./wk. (PD 1016)

PD 115
SOCCER (1CR)
The basics, some advanced skills and tactics of the game will be introduced. 2 hrs./wk. (PD 1012)

PD 117
POWER VOLLEYBALL (BEGINNING) (1CR)
The basic skills of volleyball will be taught including the forearm pass, overhead set, serve spike. Elementary offense and defense will be covered. 2 hrs./wk. (PD 1723)

PD 118
POWER VOLLEYBALL (INTERMEDIATE) (1CR)
Intermediate and advanced skills of power volleyball are the focus of this class. Emphasis is on refinement of skills. Multiple offenses and advanced defenses will be explained. 2 hrs./wk. (PD 6736)
PD 120
FUNDAMENTALS OF BASKETBALL (2CR)
Students will explore the fundamentals of offensive and
defensive basketball, individual and team play, and
strategy and rules. 3 hrs./wk. (PD 1155)

PD 125
FUNDAMENTALS OF BASEBALL
BEGINNING (3CR)
This introduction to baseball is for the prospective
player, the coach or spectator. 5 hrs./wk. (PD 1727)

PD 127
FUNDAMENTALS OF BASEBALL
INTERMEDIATE (3CR)
The prospective player, the coach and the spectator
can gain from this class. 5 hrs./wk. (PD 4735)

PD 130
RUNNING AWARENESS AND EXERCISE (1CR)
Cardiovascular fitness can be improved in this course.
Topics include the proper mechanics of running and
training; exercise benefits; fitness programs; warm-ups
and cool-downs. 2 hrs./wk. (PD 1829)

PD 132
PHYSICAL FITNESS - HEAVYHANDS (1CR)
Heavyhands — an exercise program combining motor
skills, jogging, calisthenics and the use of hand
weights of varying sizes — is the topic of this course.
Students will focus on this innovative system of high
repetition movements that involve heart, lungs and
every major muscle group simultaneously. 2 hrs./wk.
(PD 2566)

PD 134
WEIGHT TRAINING AND
PHYSICAL FITNESS BEGINNING (1CR)
The cardiovascular system, as well as overall fitness,
will be stressed. Students will work on identifying
muscles and on their personal overall conditioning
program. 2 hrs./wk. (PD 1020)

PD 135
WEIGHT TRAINING AND
PHYSICAL FITNESS INTERMEDIATE (1CR)
This class involves increased development of the
cardiovascular system as well as overall fitness.
Students will work on their own personal conditioning
program. 2 hrs./wk. (PD 1025)

PD 137
BEGINNING TENNIS (1CR)
Students will get individualized instruction in this
course on the rules, fundamentals and history of
tennis. 2 hrs./wk. (PD 1017)

PD 138
INTERMEDIATE TENNIS (1CR)
Students can work on the fundamentals of the game
and various patterns of play. 2 hrs./wk. (PD 1018)

PD 140
BEGINNING MODERN DANCE (1CR)
This is a planned, progressive fitness program
designed to improve muscle tone, body contour and
flexibility through modern dance. 2 hrs./wk.
(PD 1058)

PD 142
INTERMEDIATE MODERN DANCE (1CR)
In this course, students will concentrate on longer and
more difficult dance combinations as they work on
muscular control and strength. 2 hrs./wk. (PD 4296)

PD 145
BEGINNING CHEERLEADING (1CR)
This class focuses on working together, timeout
cheers, chants for sideline cheers and pom pom
routines. Cheerleaders will represent the college at
community activities. 4 hrs./wk, October-March.
(PD 1026)

PD 147
INTERMEDIATE CHEERLEADING (1CR)
Prerequisite: PD 145
Cheerleaders will make up original cheers and present
them to the group. They also will work with the
instructor in planning and coordinating activities.
4 hrs./wk., October-March (PD 1027)

PD 150
BEGINNING RHYTHMIC AEROBICS (1CR)
Motor skills, jogging and dance steps are combined in
this exercise program designed to improve muscle
tone and cardiovascular fitness. 2 hrs./wk. (PD 1380)

PD 152
INTERMEDIATE RHYTHMIC AEROBICS (1CR)
Motor skills, jogging and dance steps are performed at
a faster pace for a longer period of time than in
RHYTHMIC AEROBICS (BEGINNING). 1 hr.
lecture, 1 hr. lab/wk. (PD 1440)

PD 155
BEGINNING BALLET (1CR)
The fundamentals of ballet will be introduced as well
as terminology and skills. 2 hrs./wk. (PD 2655)

PD 157
INTERMEDIATE BALLET (1CR)
Prerequisite: PD 155 or equivalent
In this continuation of BEGINNING BALLET,
students will work on advanced skills, terminology
and participation. 2 hrs./wk. (PD 7165)

PD 160
BEGINNING ICE-SKATING (1CR)
Students will study the fundamental skills and
techniques of ice-skating. 2 hrs. lab/wk. (PD 5117)
PD 165
KARATE (BEGINNING) (1CR)
The fundamentals of karate will be introduced as well as its history, basic punches, blocks, kicks and self-defense techniques. 2 hrs./wk. (PD 7229)

PD 166
KARATE (INTERMEDIATE) (1CR)
Students will put the techniques of karate to practice in this class which also covers combination and defense techniques. 2 hrs./wk. (PD 2728)

PD 170
WRESTLING (1CR)
This class offers individualized instruction in the rules, fundamentals and history of wrestling. Practice area scheduled by arrangement. (PD 4257)

PD 175
FEWCING (1CR)
This class offers individualized instruction in the rules, fundamentals and history of fencing. 2 hrs./wk. (PD 6499)

PD 180
GYMNASTICS (1CR)
Students with little or no experience will get individualized instruction in tumbling, side horse, even and uneven parallel bars, balance beam and trampoline. 2 hrs./wk. (PD 4536)

PD 185
ARCHERY (1CR)
Students will get individualized instruction in the rules, fundamentals and history of archery. A survey of the origin of archery and the selection and care of equipment also will be included. 2 hrs./wk. (PD 7129).

PD 190
GOLF (1CR)
Students will get individualized instruction in the rules, fundamentals and history of the sport. Proper use of clubs and courtesies of the game also will be covered. 2 hrs./wk. (PD 3235)

PD 205
INDIVIDUAL LIFETIME SPORTS (2CR)
In a group, students will participate in badminton, racquetball, golf, tennis and bowling. History, rules and strategy will be presented for each lifetime sport. 3 hrs./wk. (PD 4291)

PD 210
FUNDAMENTALS OF ATHLETICS (2CR)
The importance of sports in society, career opportunities and other sports issues will be discussed. 3 hrs./wk. (PD 4146)

PD 215
SUNSET OFFICIATING (2CR)
The rules of football, volleyball, soccer and basketball will be covered in this class for officials as well as spectators. 3 hrs./wk. (PD 7168)

PD 220
SPRING SPORTS OFFICIATING (2CR)
Rules of basketball and baseball will be explained in this course for officials and spectators. 3 hrs./wk. (PD 6061)

PD 240
CONCEPTS IN PHYSICAL DEVELOPMENT (3CR)
Physical fitness principles will be studied and practiced. The physical condition of each student will be individually analyzed enabling the student to develop a personal fitness schedule. 3 hrs./wk. (PD 4055)

PD 245
ELEMENTARY PHYSICAL EDUCATION (3CR)
Elementary teachers will work on planning and evaluating physical education programs for their students. The class covers basic skills development and locomotion patterns, the nature of play and elementary physical education curriculum planning. 3 hrs./wk. (PD 1028)

PD 255
INTRODUCTION TO PHYSICAL EDUCATION (3CR)
Here is an introduction to physical education, its history, philosophy, theory and practice. 3 hrs./wk. (PD 6340)

PHYSICAL SCIENCE

PSCI 120
PHYSICAL SCIENCE (4CR)
This class on the fundamentals of physics, chemistry, astronomy and geology meets laboratory science requirements for non-science majors. Topics include energy, electricity, magnetism, modern physics and chemical bonding. 2 hrs. lecture, 2-6 hrs. lab/wk., flexible scheduling. (NPS 1031)

PSCI 122
ASTRONOMY (4CR)
This is a study of the universe — from the moon, planets and stars as seen in the night sky to the most distant galaxies. Topics include quasars, black holes, origin of the universe and the possibility of life on other planets. 4 hrs./wk., 5 nighttime telescope sessions (NPS 6070)

PSCI 124
HISTORY OF ASTRONOMY: COSMOS (3CR)
Students will explore the relationships between earth, its inhabitants and the universe that surrounds them. Based on the television series COSMOS, written and hosted by Dr. Carl Sagan, the course examines the evolution of the universe, earth and humanity as well as the evolution of perceptions about them. 13 1-hour TV lessons, 3 2-hour discussions. (NPS 5034)
PSCI 130
GENERAL GEOLOGY (5CR)
Students will study general geology of the earth and the processes that have shaped and continue to shape the earth. Subjects include the origin and composition of the earth, the solid earth, the atmosphere, the hydrosphere, the earth's resources and the interaction between humans and the geologic environment. 7 hrs./wk. (NAS 4858)

PSCI 132
HISTORICAL GEOLOGY (5CR)
Prerequisite: PSCI 130
HISTORICAL GEOLOGY provides a survey of the geological development of North America and the processes, environments and tectonics that occurred during the formation of the continent. Topics include the inter-relationships of various rock strata, stratigraphic geologic time, correlation, interpretation of geologic maps and identification of fossils. Course includes one day field trip. 7 hrs./wk.

PSCI 148
SCIENCE PROBLEMS ON THE COMPUTER (2CR)
Prerequisite: One college-level physical science or life science course
Elementary skills in programming a microcomputer using BASIC language will be introduced. Problem-solving techniques will be developed. 1 hr. lecture, 2 hrs. lab/wk. (NPS 3084)

PSCI 148
PHYSICAL THERAPY ASSISTANT

KPT 151
INTRODUCTION TO PHYSICAL THERAPY (2CR)
Prerequisite: Pre-enrollment with program coordinator
The student will be introduced to the basic concepts of the function of a physical therapist and a physical therapist assistant as members of the health team and the interaction of other health disciplines in the care of the patient. Medical terminology related to the specific discipline will be introduced also. Field trips to local hospitals included. 2 hrs. lecture/wk. (NPT 9770)

KPT 152
FUNDAMENTALS OF MODALITIES I (3CR)
Prerequisite: KPT 151 with a minimum grade of “C”
The student will study basic medical terminology, description of modalities and therapeutic measures used in the physical treatment of various injuries and diseases. Emphasis is on department organization and orientation to position duties and job opportunities. Field trips will expose the student to hospital clinical facilities. Clinical labs will allow the student to be introduced to the practical application of all modalities used in the physical therapy clinic. 4 hrs. lecture, 2 hrs. lab/wk. (NPT 8847)

KPT 153
KINESIOLOGY (4CR)
Prerequisite: BIOL 120
Students will analyze muscles and their functions, biomechanics of human motion, activities of joints and functions of the musculoskeletal system. 4 hrs./wk. (NPT 9772)

KPT 155
REHABILITATION (4CR)
Prerequisite: KPT 152
The student will be introduced to the philosophy underlying rehabilitation, theory and principles involved in normal and abnormal ambulation and mobility. Emphasis is on external supports used in teaching activities of daily living. Attention will be given to description, demonstration and practice with various applications and devices necessary to assist the disabled. 1 hr. lecture, 4 hrs. lab/wk. (NPT 9774)

KPT 158
THERAPEUTIC EXERCISE (5CR)
Corequisites: KPT 159, KPT 170 and KPT 171
Students will be introduced to the theory and principles of mechanical appliances and equipment, shoulder wheels, pulleys, traction and exercise devices used by the disabled. Emphasis will be on muscle re-education, sensory stimulation, safety precautions and exercise as a treatment technique. 3 hrs. lecture, 4 hrs. lab/wk. (NPT 9775)

KPT 159
CLINICAL PATHOLOGY (3CR)
Corequisites: KPT 155, KPT 158, KPT 170 and KPT 171
Students will study general pathology with detailed emphasis on the study of diseases and disease processes. 3 hrs./wk. (NPT 9776)

KPT 161
FUNDAMENTALS OF MODALITIES II (5CR)
Prerequisite: KPT 152
The student will be introduced to the theory and practical application of electrotherapy, hydrotherapy and therapeutic massage with emphasis on technique of application and indications and contra indications for use. The student also will observe in various local hospital physical therapy departments the practical application of therapeutic modalities and participate in the application of specific therapeutic modalities. 3 hrs. lab, 6 hrs. lecture/wk. (NPT 8848)

KPT 170
CLINICAL EXPERIENCE I (3CR)
Prerequisite: KPT 161
Corequisite: KPT 158, KPT 159
The student will review practical application of principles learned in prior didactic seminars and take part in rotating internships in hospitals throughout greater Kansas City under the guidance of a registered physical therapist. 9 hrs. clinic/wk. (NPT 9777)

You will receive Dean’s honors if you are enrolled in and complete a minimum of 12 credit hours and earn an overall grade point average of 3.0 or higher during any semester.

See the Career Programs section for details on JCCC’s Occupational Therapy Assistant two-year program.
KPT 171
CLINICAL SEMINAR I (1CR)
Corequisite: KPT 158, KPT 159
While conducting student discussions, the program coordinator will evaluate the experience and programs of the students in CLINICAL EXPERIENCE I. 1 hr. lecture/wk. (NPT 9778)

KPT 172
CLINICAL EXPERIENCE II (11CR)
Prerequisites: KPT 155, KPT 158, KPT 170, KPT 171
The student will gain supervised clinical experience observing and applying techniques and procedures in all previous courses. Emphasis will be on assisting the physical therapist in the treatment procedures in a variety of clinical settings. 3 hrs. clinic/wk. (NPT 9779)

KPT 173
CLINICAL SEMINAR II (2CR)
Corequisite: KPT 172
The student will participate in informal discussion of ethical standards of practice in patient care. Students also will discuss their experiences in the clinical areas. Emphasis will be on review of techniques and clinical procedures. Guest lecturers will be featured. The student will receive CPR certification. 2 hrs. lecture/wk. (NPT 9780)

PHYSICS

PHYS 125
TECHNICAL PHYSICS I (3CR)
Prerequisite: MATH 133
This is a study of selected topics in physics including motion, forces, energy, mechanical advantage, heat, friction, fluids and properties of matter. 2 hrs. lecture, 3 hrs. lab/wk. (EGR 7094)

PHYS 126
TECHNICAL PHYSICS II (3CR)
Prerequisite: PHYS 125
Subjects include momentum, wave motion, sound, light, atomic structure, static electricity and magnetism. 2 hrs. lecture, 3 hrs. lab/wk. (EGR 9017)

PHYS 130
GENERAL PHYSICS I (5CR)
Prerequisite: MATH 160
Selected topics in physics will be introduced — motion, energy, matter, thermodynamics and wave motion. 4 hrs. lecture, 3 hrs. lab/wk. Fall. (NPS 5213)

PHYS 131
GENERAL PHYSICS II (5CR)
Prerequisite: PHYS 130
In this continuation of GENERAL PHYSICS I, topics include electricity, magnetism, light, atomic and nuclear structure, quantum theory, relativity and particle physics. 4 hrs. lecture, 3 hrs. lab/wk. (NPS 3309)

PHYS 220
ENGINEERING PHYSICS I (5CR)
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. Fall. (NPS 5212)

PHYS 221
ENGINEERING PHYSICS II (5CR)
Prerequisite: PHYS 220
Electricity and magnetism, light and topics in modern physics will be addressed. 4 hrs. lecture, 3 hrs. lab/wk. Spring. (NPS 5238)

POLITICAL SCIENCE

POL 122
POLITICAL SCIENCE (3CR)
This introductory course examines social relationships between people, power and politics. Modern political ideologies such as classical liberalism, capitalism, socialism and fascism are studied as well as contemporary forms of political organization, participation, decision-making and political economy. 3 hrs./wk. (SS 1456)

POL 124
AMERICAN NATIONAL GOVERNMENT (3CR)
The theoretical, political and administrative aspects of American government will be surveyed. Topics include the Constitution; political parties; the executive, legislative and judicial branches; and public policy formulation and implementation. 3 hrs./wk. (SS 3138)

POL 126
STATE AND LOCAL GOVERNMENT (3CR)
State and local government theories and practices will be surveyed with special emphasis on Kansas. Topics include structure of these governments, intergovernmental relations, types of services, taxing and budgeting processes, the role of the citizen and possible reforms. Speakers, field trips and projects are features of the class. 3 hrs./wk. (SS 2678)

POL 132
INTRODUCTION TO COMPARATIVE GOVERNMENT (3CR)
In this introduction to the comparative study of political systems, students will examine ideology and socioeconomic institutions. They also will look at decision-making structures in competitive and non-competitive political systems, industrialized and industrializing nations, and Western and non-Western nations. 3 hrs./wk. (SS 5852)

POL 135
INTERNATIONAL RELATIONS (3CR)
Nation states and the factors which affect international relationships will be analyzed. Other areas of interest:
include the role of power, law and ideology; the effectiveness of international organizations; private diplomacy; collective security; and war. Current topics in international politics will be used as case studies. 3 hrs./wk. (SS 2808)

POL 176
GREAT DECISIONS I:
ISSUES IN U.S. FOREIGN POLICY (1CR)
Current international political and social issues will serve as topics in this class. 1 hr./wk. (SS 3656)

POL 298
U.S. AND THE U.S.S.R.:
TRAVEL FOR CREDIT (3CR)
In this comparison of Soviet and American societies, students will focus on histories, current social, economic and political conditions, educational systems, and the arts. The class consists of readings, discussions and trips to theaters, museums, cathedrals, schools, and cultural and historical sites. 15 hrs. lecture, 160 hrs. travel. (SS 1697)

PSYCHOLOGY

PSYC 121
APPLIED PSYCHOLOGY (3CR)
How students can use psychological principles to better understand themselves and others will be the emphasis of this course. Topics include popular approaches to psychological problems, interpersonal relationships, common emotional problems, and the student's view of self, values and goals. The course also will show how psychology applies to other disciplines and social institutions. 3 hrs./wk. (SS 5191)

PSYC 124
HUMAN POTENTIAL SEMINAR (3CR)
This is a structured group experience designed to increase self-affirmation, self-motivation, self-determination and empathetic regard for others. It includes analysis of achieving satisfaction and success, clarification of personal values, acknowledgment of personal strengths and long-range goal setting. Regular attendance is imperative. 3 hrs./wk. (SS 2002)

PSYC 127
CAREER/LIFE PLANNING (3CR)
This is a systematic approach to career/life planning in which students will focus on a process for making occupational decisions at any point in their lives. 3 hrs./wk. (SS 7227)

PSYC 130
INTRODUCTION TO PSYCHOLOGY (3CR)
This is an introduction to general psychology. Topics include the biological aspects of behavior, the brain, consciousness, sensation, perception, motivation, emotion, stress, maturation and development, learning and memory, normal and abnormal personality, and social psychology. This course is a prerequisite for other courses in psychology. 3 hrs./wk. (SS 1068)

PSYC 210
METHODOLOGY IN THE
SOCIAL SCIENCES (3CR)
Prerequisite: PSYC 130 or SOC 122 or ECON 230
This course deals with scientific research methods in psychology, sociology and other social sciences involving the analysis of behavior. A wide range of data collection methods — from questionnaire methods to controlled experimentation — are examined. 3 hrs./wk. (SS 2737)

PSYC 215
CHILD DEVELOPMENT (3CR)
Prerequisite: PSYC 130
The psychological development of humans from conception through adolescence will be traced in this course. Students will study how genetic, biological, physiological and anthropological factors influence the psychological process. The role heredity and environment play in development will be analyzed. 3 hrs./wk., 20 hrs. practicum in a structured setting where children are present is required. (SS 3546)

PSYC 220
SOCIAL PSYCHOLOGY (3CR)
Prerequisite: PSYC 130
How human thought, feeling and behavior are influenced by the actual, imagined or implied presence of others will be explored in this class. Topics include social influence, attitude formation and attitude change, social attitudes and prejudice, conformity and deviation, socialization and personality, aggression, leadership and group dynamics. 3 hrs./wk. (SS 5663).

PSYC 225
EDUCATIONAL PSYCHOLOGY (3CR)
Prerequisite: PSYC 130
The psychology of learning-teaching situations will be addressed. Areas covered include behavior, skills, memory, generalization of learning, assessment and measurement of learning and intelligence. A practicum in a structured setting is required. 3 hrs./wk. (SS 3148)

PSYC 230
PERSONALITY THEORY (3CR)
Prerequisite: PSYC 130
Three general viewpoints or paradigms in psychology will be studied with emphasis on each system's contribution to understanding human personality and its contribution to our response to everyday problems. 3 hrs./wk. (SS 4639)
PSYC 235
TRANSPERSONAL PSYCHOLOGY (3CR)
Prerequisite: PSYC 130
Human potential and capacity beyond the usual state of consciousness will be explored in this class. Students will consider assumptions, consciousness, mystical experiences, spirit, interpersonal encounter, extrasensory phenomena, ultimate values and eternal meanings. Experiential exercises to assist the integration of body, mind and spirit will be included. 3 hrs./wk. (SS 9022)

RADIOLOGIC TECHNOLOGY

KRAD 169
MEDICAL AND RADIOLOGY TERMS (3CR)
Prerequisite: Admission to the program
Students will study medical terminology — especially technical terminology — used in radiology procedures. 3 hrs./wk. (NRD 9801)

KRAD 170
RADIOLOGICAL TECHNOLOGY I (3CR)
Prerequisite: Admission to the program
Radiation biology, radiation protection and monitoring, professional attitudes and ethics are among the topics covered. Special attention will be paid to emergency procedures in the radiology department. 3 hrs./wk. (NRD 9802)

KRAD 171
RADIOGRAPHIC EXPOSURES I (3CR)
Prerequisite: Admission to the program
Radiographic image formation and the factors affecting or controlling it will be examined. Students will conduct related experiments. 4 hrs./wk. (NRD 9803)

KRAD 172
RADIOGRAPHIC POSITIONING I (3CR)
Prerequisite: Admission to the program
This is a study of anatomy and positioning for the abdomen, chest, upper and lower extremities, upper gastrointestinal tract, colon, gallbladder/biliary tract and kidney. 4 hrs./wk. (NRD 9804)

KRAD 173
CLINICAL TRAINING I (2CR)
Prerequisite: Admission to the program
This class offers training in basic radiographic examinations and related tasks. The student will be expected to perform six examinations unassisted by the end of the term. 26 hrs. lab/wk. (NRD 9805)

KRAD 174
RADIOGRAPHIC EXPOSURES II (3CR)
Prerequisite: KRAD 171
Topics include quality control of radiographic images; technique charts; calibration of equipment; standard exposure systems; and special techniques used in producing radiographic images. 4 hrs./wk. (NRD 9806)

KRAD 175
CLINICAL TRAINING II (2CR)
Prerequisites: KRAD 169, KRAD 170, KRAD 171, KRAD 172, KRAD 173
This training focuses on upper and lower extremities, cervical, thoracic and lumbar spine, ribs, skull and mammographic examinations. The student must be able to perform six examinations unassisted by the end of the term. 26 hrs. lab/wk. (NRD 9807)

KRAD 176
RADIOGRAPHIC POSITIONING II (3CR)
Prerequisite: KRAD 172
This class covers anatomy and positioning related to the upper and lower extremities, the vertebral column and thorax and includes mammography. 4 hrs./wk. (NRD 9808)

KRAD 178
CLINICAL TRAINING III (1CR)
Prerequisites: KRAD 174, KRAD 175, KRAD 176
Training in this course continues in examining the ribs, cervical, thoracic and lumbar spine, gallbladder, biliary system and retrograde pyelograms and infusion pyelograms using tomography. Students will be assigned to evening training sessions during the summer. Average 24 hrs./wk. (NRD 9815)

KRAD 278
RADIOLOGIC TECHNOLOGY II (3CR)
Prerequisites: ANAT 144, KRAD 170
First students will study the disease processes of the body, then they will relate them to patient examinations in the radiology department. 3 hrs./wk. (NRD 9810)

KRAD 279
RADIOGRAPHIC POSITIONING III (3CR)
Prerequisite: KRAD 176
Students will study methods of positioning the trauma patient as well as anatomy and positioning for the skull, sinuses, facial bones and teeth. Emphasis is on special views of the skull. 3 hrs. lecture, 1 hr. lab/wk. (NRD 9809)

KRAD 280
CLINICAL TRAINING IV (2CR)
Prerequisite: KRAD 178
Students will examine the skeletal system in this class. Training opportunities in portable radiography, emergency room techniques and supervised fluoroscopy will be provided. Students will be expected to perform with limited supervision all the exams they have shown competence in as well as six new exams by the end of the term. 20 hrs./wk. (NRD 9816)

KRAD 281
PHYSICS OF X-RAY EQUIPMENT (4CR)
Prerequisites: PSCI 120, KRAD 174
Students will apply the principles of physics to the study of X-ray equipment and other diagnostic imaging devices used in the X-ray department. 5 hrs./wk. (NRD 9811)
KRAD 282
CLINICAL TRAINING V (2CR)
Prerequisites: KRAD 279, KRAD 280
Students will receive training in the areas in which they show need and will be expected to perform, under limited supervision, most department examinations. They also will begin rotation through specialty areas. 20 hrs./wk. (NRD 9817)

KRAD 283
FINAL SEMINAR (3CR)
Prerequisites: KRAD 278, KRAD 281, KRAD 282, KRAD 285
Students will prepare for the National Registry examination by using tests and review materials designed to simulate the ARRT examinations. 3 hrs./wk. (NRD 9813)

KRAD 284
CLINICAL TRAINING VI (1CR)
Prerequisites: KRAD 172, KRAD 281, KRAD 282
Students will be assigned training in areas of special need and will be evaluated on their specialty rotation areas. 24 hrs./wk. (NRD 9818)

KRAD 285
SPECIAL PROCEDURES (3CR)
Prerequisite: ANAT 144, KRAD 176
This course covers anatomy, positioning, equipment and special tasks related to the circulatory, nervous and lymphatic systems. The role of the technologist will be stressed. 3 hrs./wk. (NRD 8012)

KRAD 287
CLINICAL TRAINING VII (3CR)
Prerequisites: KRAD 283, KRAD 284, KRAD 285
Students will complete evaluations for remaining exams and skills and will make final preparation to enter the field as registered technologists. They also will be assigned to all areas of the department on a rotation basis and rotate to an affiliate hospital radiology department. 39 hrs./wk. (NRD 9819)

KRAD 288
SPECIALTY TRAINING (ELECTIVE) (9CR)
Prerequisite: Approval of program director
This class offers additional training in one of the following areas: nuclear medicine, ultrasound, radiation therapy, thermography or computer-assisted tomography, or management/supervision. 1 hr. lecture, 16 hrs. lab/wk. (NRD 9820)

RECREATIONAL LEADERSHIP

RECL 123
SOCIAL RECREATION (2CR)
Students will have the opportunity to develop their individual strengths in this class on planning, programming and conducting social recreational activities for clubs, churches, schools, playgrounds and recreation centers. 3 hrs./wk. (PRL 2459)

RECL 125
OUTDOOR RECREATION (3CR)
The history and development of and trends in outdoor recreation, conservation and organized camping will be reviewed. The class also consists of lab work focusing on the development of camping skills. 3 hrs./wk. (PRL 7164)

RECL 130
INTRODUCTION TO THERAPEUTIC RECREATION (3CR)
Students will become acquainted with the recreational needs of the ill, handicapped and other special groups. Emphasis will be on where therapeutic recreation is available. The instructor will demonstrate and the class will take part in activities designed for different disabilities. 3 hrs./wk. (PRL 2571)

RECL 271
RECREATIONAL FIELD STUDY (3CR)
In this class, students will work as recreation leaders in a local agency, hospital or institution. 1 hr. class, a minimum of 15 hrs. supervised laboratory by arrangement/wk. (PRL 1379)

RESPIRATORY THERAPY

RT 125
BEGINNING PRINCIPLES OF RESPIRATORY THERAPY (4CR)
Prerequisite: Admission to the Respiratory Therapy program
This is an introduction to respiratory therapy. Students will focus on basic anatomy, physiology, pathophysiology and respiratory therapy techniques needed in the care of pulmonary disease patients. Students will have contact with patients after two to three weeks of introductory material. Lab time also is scheduled. 6 hrs. lecture, 16 hrs. lab/wk. Summer. (NRT 3370)

RT 130
RESPIRATORY THERAPY EQUIPMENT (4CR)
Prerequisite: Admission to the Respiratory Therapy program
The equipment used in providing basic patient care will be introduced. Topics include equipment for oxygen therapy, aerosol therapy and IPPB. Students gain hands-on experience in the lab before actually treating patients. 6 hrs. lecture, 8 hrs. lab/wk. Summer. (NRT 3371)
RT 135
CARDIOPULMONARY MEDICINE I (1CR)
Prerequisite: Admission to the Respiratory Therapy program
This is the first of three courses in which the medical director of the program lectures. This will be an introduction to the diagnostic procedures used by the pulmonary physician in evaluating patients with respiratory disease. The class also provides information on the pathology of disease states the student will encounter. 2 hrs. lecture/wk. Summer. (NRT 3372)

RT 220
CLINICAL CARDIOPULMONARY PHYSIOLOGY (4CR)
Prerequisite: Successful completion of summer sequence of respiratory therapy courses
This is a comprehensive study of the physiology and pathophysiology of the pulmonary, cardiovascular and renal systems as they relate to respiratory therapy. 2 hrs. lecture/wk. Fall. (NRT 3373)

RT 230
CLINIC TOPICS AND PROCEDURES I (3CR)
Prerequisite: Successful completion of summer sequence of respiratory therapy courses.
In this lecture and lab course, students will focus on basic care, emergency care, mechanical ventilators and critical care. 2 hrs. lecture, 3 hrs. lab/wk. Fall. (NRT 3375)

RT 231
CLINIC TOPICS AND PROCEDURES II (4CR)
Prerequisite: Successful completion of the fall sequence of respiratory courses
Critical care and more sophisticated aspects of respiratory therapy will be emphasized in this lab/lecture course. Medical ethics and department management will be covered. 3 hrs. lecture, 3 hrs. lab/wk. Spring. (NRT 3379)

RT 233
RESPIRATORY CARE OF CHILDREN (2CR)
Prerequisite: RT 230
Focus is on the respiratory care of neonatal and pediatric patients with emphasis on the management of cardio-pulmonary disease states unique to children. Information is based on developmental anatomy and physiology pathology, diagnostic/laboratory procedures, and equipment manipulation in acute, chronic, critical and emergency care settings. 2 hrs. lecture/wk.

RT 235
CARDIOPULMONARY MEDICINE II (2CR)
Prerequisite: Successful completion of summer sequence of Respiratory Therapy courses
This is a continuation of the series taught by the medical director of the program emphasizing disease states of the cardiopulmonary system. Discussion covers the pathology, diagnosis and treatment of various diseases and the role of the respiratory therapist in the medical management of these patients. 2 hrs. lecture/wk. Fall. (NRT 3375)

RT 236
CARDIOPULMONARY MEDICINE III (2CR)
Prerequisite: Successful completion of the fall sequence of respiratory therapy courses
This is a continuation of the medical director's discussion of pulmonary diseases, their pathology and their treatment. 2 hrs. lecture/wk. Spring. (NRT 3380)

RT 240
RESPIRATORY PHARMACOLOGY (2CR)
Prerequisite: Successful completion of the fall sequence of respiratory therapy courses
This class presents all the pharmacology respiratory therapists provide plus a general study of most of the drugs used in the care of patients with cardiopulmonary problems. Drugs administered during a code blue also are stressed. 2 hrs. lecture/wk. Fall. (NRT 3377)

RT 271
CLINICAL PRACTICE I (4CR)
Prerequisite: Successful completion of summer sequence of respiratory therapy courses
In the first eight-week period, students will give basic care to adults and children. In the second eight-week period, they will concentrate on critical care medicine giving treatments in the intensive care unit. Also during the semester students will learn to intubate under the guidance of anesthesia personnel, will go on rounds with the medical director of the program and will focus on performing arterial punctures. 24 hrs. clinic/wk. Fall. (NRT 3374)

RT 272
CLINICAL PRACTICE II (4CR)
Prerequisite: Successful completion of the fall sequence of respiratory therapy courses
Two eight-week quarters will emphasize critical care of adults and newborns. Students will participate in rehabilitation, department management, intubations and medical rounds rotations. 24 hrs./wk. Spring. (NRT 3378)

SECRETARIAL CAREERS

SEC 101
KEYBOARDING (1CR)
Here is a course for data processing students who cannot type and for employees in medicine, law, sales, travel, education and other areas who need keyboard skills. The class will stress accuracy at the keyboard in alpha, numeric and symbol keys. 17 hrs. instruction (BSC 4137)

SEC 105
SHORTHAND REFRESHER: SHORT COURSE (1CR)
Theory and vocabulary will be reviewed as students work on increasing their speed. 1 hr./wk. (BSC 3018)
SEC 110  BEGINNING TYPING (3CR)
Students will work on keyboard and machine techniques as they concentrate on personal and business letters, outlines, manuscripts, tabulation and centering. The class consists of group as well as individualized instruction and scheduled use of the secretarial lab. 3 hrs. class, 2 hrs. lab/wk. (BSC 1263)

SEC 122  INTERMEDIATE TYPING (3CR)
Prerequisite: SEC 110
Speed and accuracy will be emphasized in typing business letters, memos, tabulated reports and financial reports. Class consists of group as well as individual instruction and scheduled use of the secretarial lab. 3 hrs. class, 2 hrs. lab/wk. (BSC 2376)

SEC 125  SHORTHAND I (3CR)
Prerequisite or corequisite: SEC 110
Students will concentrate on shorthand theory and writing familiar, previewed material in shorthand at a rate of 40-60 words per minute. In addition to the introduction of shorthand theory by the instructor, each student will use a series of tapes and other materials to reinforce theory rules. 3 hrs. class, 2 hrs. lab/wk. (BSC 1519)

SEC 126  SHORTHAND II (3CR)
Prerequisite: SEC 125
This is a class for students with knowledge of basic shorthand theory. It consists of a review of shorthand theory, transcription techniques, spelling, punctuation and grammar through tapes and materials. Students will work to develop shorthand dictation speeds from 60-100 words per minute. 3 hrs. class, 2 hrs. lab/wk. (BSC 4590)

SEC 130  STENOSCRIPT SPEEDWRITING SHORTHAND (3CR)
This course is for secretaries who need to quickly learn dictation skills and for students who must take notes in class. Students will begin taking dictation using abbreviated shorthand after the second session. It is possible to work up to 80-90 words per minute by the end of the course. Areas covered include theory, practice, speedbuilding and transcription. 3 hrs. lecture, 2 hrs. lab/wk. (BSC 3325)

SEC 131  STENOSCRIPT DICTATION TRANSCRIPTION (3CR)
Prerequisite: SEC 130
Students who have completed STENOSCRIPT SPEEDWRITING SHORTHAND can practice additional speed dictation and transcription in this class. All brief forms, abbreviations, spelling and punctuation will be reviewed and students will practice dictation, produce mailable transcripts and work on reaching speeds of 100-120 words per minute. 3 hrs./wk. Students will schedule 2 hrs. lab/wk. (BSC 2732)

SEC 135  ELECTRONIC CALCULATORS (1CR)
In this class, students will concentrate on operating an electronic printing calculator, interpreting and recording answers, and solving arithmetic problems. The goal is to develop a high degree of proficiency in touch operation, speed and accuracy. 1 hr./wk. Students will schedule 1 hr. lab/wk. (BSC 5190)

SEC 136  RECORDS MANAGEMENT (3CR)
Alphabetic, numeric, subject and geographic filing systems will be covered in this class on office routines and efficient methods and systems for storing and retrieving information. Various types of office filing equipment also will be surveyed. 3 hrs./wk. (BSC 1342)

SEC 140  LEGAL SECRETARY (2CR)
This class covers topics recommended by the National Association of Legal Secretaries, including an overview of the field of law as it applies to the legal secretary. Students wishing to prepare for the PLS examination should consult the instructor before enrolling. 2 hrs./wk. (BSC 2267)

SEC 142  LEGAL TRANSCRIPTION (3CR)
Prerequisite: SEC 122
This course is designed to acquaint students with legal terminology including correct spelling and use of legal terms and Latin words and phrases and provide intensive practice in building speed and accuracy in the transcription of legal terms. (BSC 2503)

SEC 221  PRODUCTION TYPING (3CR)
Prerequisite: SEC 122
A high degree of proficiency in production typing will be the emphasis in this course as students work on typing for medical, legal and governmental and other specialized offices. Class consists of individual instruction and scheduled use of the lab. 3 hrs. class, 2 hrs. lab/wk. (BSC 7633)

SEC 223  MACHINE TRANSCRIPTION (3CR)
Prerequisite: SEC 122
Students will use dictation equipment extensively as they work on transcribing business letters, memos and technical reports, news releases, agendas and minutes. Medical and legal terminology and other special fields will be emphasized. Students also will work on developing language skills through correct word division, punctuation, grammar and number transcription exercises. 3 hrs./wk. Students will schedule 2 hrs. lab/wk. (BSC 5189)

For word processing classes, see Information/Word Processing.

You will receive a 100 percent refund of tuition and fees if your withdrawal is received by the Admissions Office before no on — the first day of the semester.

115
SEC 225
DICTATION AND TRANSCRIPTION (3CR)
Prerequisite: SEC 122 and SEC 126
Students will focus on increasing their speed and accuracy writing from dictated material and transcribing notes. An instructor will lead the class but students will study on their own, using materials geared to their individual abilities. Transcription speeds range from 80-120 words per minute. 3 hrs. class, 2 hrs. lab/wk. (BSC 3630)

SEC 230
SECRETARIAL PROCEDURES I (3CR)
Prerequisite or corequisite: SEC 122
This is an introduction to all phases of the office from a secretarial standpoint including word processing; written communication; transmittal services; records management; travel and conferences; collecting, processing and presenting business data; and financial and legal work. The Certified Professional Secretary exam also will be covered. 3 hrs./wk. (BSC 1272)

SEC 231
SECRETARIAL PROCEDURES II (3CR)
Prerequisite: SEC 230
Students will have the opportunity to apply the skills they studied in SECRETARIAL PROCEDURES I in this class. Through simulated office situations and projects, the class will address these areas: meetings and conferences, travel arrangements, letter writing, supervision, reproduction equipment and services, seeking and terminating employment. The student may follow a medical, legal or general sequence. 3 hrs./wk. (BSC 2317)

SEC 271
MANAGEMENT SEMINAR (2-3CR)
Under supervision, students will work in an approved office situation. Concepts, terminology, principles and theories of management will be introduced. A minimum of 15 hrs. on-the-job training by arrangement/wk. (BSC 3857)

SEC 274
HUMAN RELATIONS SEMINAR (2-3CR)
Under supervision, students will work in an approved office situation. Focus will be on an analysis of the process which brings workers into contact with the organization in such a way that the objective of both can be achieved. A minimum of 15 hrs. on-the-job training by arrangement/wk. (BSC 3858)

SEC 276
ADMINISTRATIVE OFFICE MANAGEMENT SEMINAR (2-3CR)
Students will work under supervision in an approved office situation. Focus will be on the process of planning, organizing, directing, coordinating and controlling office activities. A minimum of 15 hrs. on-the-job training by arrangement/wk. (BSC 3859)

SEC 279
BUSINESS LAW SEMINAR (2-3CR)
Students will work under supervision in an approved office situation. Emphasis is on the basic principles of business law using the case study method. A minimum of 15 hrs. on-the-job training by arrangement/wk. (BSC 3861)

SMALL ANIMAL HEALTH

KSAH 100
INTRODUCTION TO ANIMAL TECHNOLOGY (2CR)
This is an introduction to career opportunities; professional ethics; public relations; the emotional aspect of treating animals; euthanasia; venapuncture; injections; animal sterilization; and attitudes toward research animals. 2 hrs./wk. (NAT 4894)

KSAH 101
PRINCIPLES OF ANIMAL SCIENCE I (3CR)
The handling and management of animals, nutrition, housing and sanitation are among the major areas this class covers. Emphasis will be on animal physiology and body responses. Also introduced will be anesthesia and management of hospital cases; methods of treatment; restraint; determination of body temperature, pulse and respiration. 4 hrs./wk. (NAT 6897)

KSAH 108
CLINICAL MATH (1CR)
Students will review the metric system and conversion units; apothecaries' equivalents; vocabulary; preparation of solutions; drug administering; calculating and measuring dosages; and other areas. 1 hr./wk. (NAT 7896)

KSAH 110
PRINCIPLES OF ANIMAL SCIENCE II (3CR)
Prerequisite: KSAH 101
Techniques for obtaining animal samples for laboratory analysis will be introduced. The class also offers information on surgery preparations and anesthetic management of animals. Emphasis will be on effects of anesthetics and physiology of body systems not covered in ANIMAL SCIENCE I. 4 hrs./wk. (NAT 3899)

KSAH 111
SANITATION AND ANIMAL CARE (2CR)
Topics include cleaning and sanitation; personal hygiene; vermin recognition; cleaning cages and equipment; care and supervision of patients or colonies; diet; feeding animals; work routines; and daily operating procedures. 3 hrs./wk. (NAT 1895)

KSAH 120
CLINICAL PATHOLOGICAL TECHNIQUES I (4CR)
The analysis of urine, blood and feces will be introduced along with the preparation of smears and
staining techniques. Other topics include hematology, differentiation of blood cells and serum chemistries. 7 hrs./wk. (NAT 2901)

**KSAH 200**
**ANIMAL HOSPITAL TECHNOLOGY I (3CR)**
The focus in this class is on hypodermic injections, vaccines, colonic irrigations, wound dressings, parenteral fluids, oral substances, intrauterine infusions, intramammary gland infusions and other mastitis therapy, and radiographic film processes. Students will administer anesthetics and assist the surgeon during operations. 5 hrs./wk. (NAT 5903)

**KSAH 202**
**ANIMAL TECHNOLOGY ANATOMY (5CR)**
Physiology, pharmacology, pathology and parasitology within the framework of animal body systems will be explored in this class. 7 hrs./wk. (NAT 4904)

**KSAH 203**
**LABORATORY ANIMAL TECHNOLOGY (2CR)**
**Prerequisite:** KSAH 101, KSAH 110, KSAH 120
In this class the student will focus on the care, handling, restraint, sanitation and diseases of the laboratory animal species. The class will provide the training necessary to handle supervisory positions in laboratory animal colonies. 3 hrs./wk. (NAT 3905)

**KSAH 210**
**ANIMAL HOSPITAL TECHNOLOGY II (3CR)**
**Prerequisite:** KSAH 200
In this continuation of ANIMAL HOSPITAL TECHNOLOGY, students will study orthopedic procedures, electrocardiography, pharmacology and anesthesia. Lab exercises will cover surgical assisting, blood transfusion, anesthetic emergencies, bandaging and fluid therapy. 5 hrs./wk. (NAT 6906)

**KSAH 211**
**CLINICAL PATHOLOGICAL TECHNIQUES II (5CR)**
**Prerequisite:** KSAH 120
This class consists of advanced work in hematology and serum chemistries with emphasis on evaluation of laboratory specimens and the basis of clinical chemistries. 8 hrs./wk. (NAT 6004)

**KSAH 212**
**LARGE ANIMAL TECHNOLOGY (4CR)**
**Prerequisite:** KSAH 101 and KSAH 110
In this class, students will concentrate on how to handle and restrain large animals; oral and parenteral medications; blood collection; sanitation; and housing. The diseases affecting large animals and preventive medicine also will be explained. 6 hrs./wk. (NAT 6006)

**KSAH 213**
**RADIOLOGY AND ELECTRONIC PROCEDURES (2CR)**
This class involves intensive study and practice in radiological techniques. Areas addressed include positioning, exposure, developing, establishing a technique chart, evaluation of technical errors, studies in contrast radiography, theory of radiology, types of machines, films and cassettes, and radiation safety. 3 hrs./wk. (NAT 8909)

**KSAH 214**
**ANIMAL HEALTH INTERNSHIP (6CR)**
**Prerequisite:** Two semesters of first-year animal health courses
This intensive clinical study will take part under the supervision of a cooperating veterinarian. 420 work hrs. (NAT 1902)

**SMALL ENGINE**

**SMEG 125**
**BASIC SMALL ENGINE SERVICE (3CR)**
Among areas examined in this class are four-stroke cycle and two-stroke cycle engines; lubricating, cooling, fuel and governor systems; trouble-shooting engine problems; inspecting engine components; and servicing the fuel, cooling and exhaust systems. 2 hrs. lecture, 3 hrs. lab/wk. (TSE 7240)

**SMEG 127**
**SMALL ENGINE ELECTRICAL SYSTEMS (3CR)**
**Prerequisite:** SMEG 125
Topics include types of current; relationship between electricity and magnetism; types of electrical circuits; and servicing the ignition system among other areas. 2 hrs. lecture, 3 hrs. lab/wk. (TSE 7241)

**SOCIOLOGY**

**SOC 122**
**SOCIOLOGY (3CR)**
This overview of social life covers group structure and processes, social interaction and examination of major institutions. Theories, methods of study and uses of social research will be examined. 3 hrs./wk. (SS 3404)

**SOC 125**
**SOCIAL PROBLEMS (3CR)**
Selected social problems — from crime to drug abuse — will be analyzed. The history and development of each problem will be examined from a variety of perspectives as well as possible solutions. 3 hrs./wk. (SS 3428)

None of the Sociology courses require prerequisites.

The Student Development and Counseling Division offers workshops on test anxiety, self-defeating behaviors and other helpful topics.
SOC 131
MARRIAGE AND THE FAMILY (3CR)
This is an examination of the institutions of marriage and family. It will emphasize changing roles, family formation, socialization, domestic conflict, interaction among family members and marriage partners, and the relationship among marriage and family and society. 3 hrs./wk. (SS 5716)

SOC 146
SOCIAL WELFARE (3CR)
Social welfare and its relationship to other social systems in America will be introduced. The social, economic and political factors that foster inequality will be examined as well as social welfare as a response to social deprivation. 3 hrs./wk. (SS 4122)

SOC 147
SOCIAL WORK AND SOCIAL SERVICES (3CR)
Students will study social work as a profession in this class. Origins, values, skills, fields of service and current issues in the field of social work will be analyzed. 3 hrs./wk. (SS 4123)

SOC 152
PERSPECTIVES ON AGING (3CR)
The social aspects of aging will be identified in this class. Areas of special interest include research themes and demographic trends; aging and its relationship to family, economy, politics, religion and education; the effect of cultural values on behavior; and the future of the elderly. 3 hrs./wk. (SS 2733)

SPD 120
INTERPERSONAL COMMUNICATION (3CR)
In this basic speech course, students will study the principles of effective communication in one-to-one relationships and in small groups. They will apply these principles in a variety of learning exercises and situations. Individualized talks may be given but everyday communication is stressed. 3 hrs./wk. (CSP 4950)

SPD 121
PUBLIC SPEAKING (3CR)
This fundamental speech course emphasizes speech organization, development of ideas, audience analysis and delivery. Students will deliver informative and persuasive speeches in the impromptu, extemporaneous and manuscript styles. 3 hrs./wk. (CSP 4130)

SPD 122
GROUP DISCUSSION (3CR)
Students will participate in small groups to study the principles of effective group dynamics and leadership skills and practice these principles in class. 3 hrs./wk. (SS 4130)

SPD 130
ELEMENTARY DEBATE (3CR)
Theories of argumentation and debate will be introduced. Students will attend 2-8 weekend inter-collegiate debate tournaments a semester. 3 hrs./wk. (CSP 5545)

SPD 132
INTERMEDIATE DEBATE I (3CR)
Prerequisite: SPD 130 or equivalent
This is a continuation of argumentation and debate theories. Students will attend 2-8 weekend inter-collegiate debate tournaments a semester. 3 hrs./wk. (CSP 2162)

SPD 230
INTERMEDIATE DEBATE II (3CR)
Prerequisite: SPD 132 or equivalent
Intercollegiate debates will be stressed in this review of argumentation and debate theories. Students will attend 2-8 weekend debate tournaments a semester. 3 hrs./wk. (CSP 1001)

SPD 235
ADVANCED DEBATE (3CR)
Prerequisite: SPD 230 or equivalent
Students will participate on the senior level in intercollegiate debate, attending 2-8 debate tournaments a semester. 3 hrs./wk. (CSP 6651)

SPD 298
INTERCULTURAL COMMUNICATION: GREAT BRITAIN AND THE UNITED STATES (3CR)
In this travel-for-credit course, students will visit selected cities in Great Britain where they will compare British and U.S. languages, values and institutions. Offered periodically. (CSP 5323)

THEATER

THEA 120
INTRODUCTION TO THEATER (3CR)
Students will be introduced to a variety of theatrical experiences. They will read great plays. They also will see television, film and live theater presentations, and discuss theater practices, dramatic structure and history of the theater. 3 hrs./wk. (CDR 1809)

THEA 123
IMPROVISATION FOR THEATER (1CR)
Theater improvisation will be introduced in this class which emphasizes creative stage activities not requiring a written script. 1 hr./wk. (CDR 5001)

THEA 125
CHILDREN'S THEATER I (3CR)
Students with no experience can explore children's theater in this class. They will study the difference between theater for and by children and the adaptation of various forms of children's literature. Performances will consist of the presentation of programs to
THEA 130
ACTING I (3CR)
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 take part in a final acting project performance. 3 hrs./wk. plus rehearsals and stage performances. (CDR 3311)

THEA 133
THEATER PRACTICUM I (2CR)
Students can gain practical experience in technical theater techniques in this class. 4 hrs. lab/wk. (CDR 5417)

THEA 135
MAKE-UP (1CR)
Students will study and practice applying stage make-up. 1½ hrs. lecture, 1½ hrs. lab/wk. for 5 wks. (CDR 2656)

THEA 137
LIGHTING (1CR)
Students will study and practice handling stage lighting. 1½ hrs. lecture, 1½ hrs. lab/wk. for 5 wks. (CDR 1238)

THEA 140
BASIC STAGECRAFT (1CR)
This course provides students with the theory behind and practical experience in building and painting stage scenery. 1½ hrs. lecture, 1½ hrs. lab/wk. for 5 wks. (CDR 3175)

THEA 225
READER'S THEATER (3CR)
Students will combine acting, interpretation and rhetoric as they analyze and perform prose, poetry and dramatic literature and present public performances. 3 hrs./wk. plus rehearsals. (CDR 4669)

THEA 230
ACTING II (3CR)
Prerequisite: THEA 130
This continuation of ACTING I will focus on character analysis and development, emphasizing the actor's responsibility in creating the character. Students will take part in actual stage performances and videotapes for broadcast. 3 hrs./wk. plus rehearsals, television studio performances and stage performances (CDR 5316)

THEA 233
THEATER PRACTICUM II (2CR)
This class provides additional practice in technical theater techniques. 4 hrs. lab/wk. (CDR 5418)

THEA 240
COSTUMING (1CR)
Students will study casting and practice creating costumes. 1½ hrs. lecture, 1½ hrs. lab/wk. for 5 wks. (CDR 4582)

THEA 243
SET DESIGN (1CR)
Students will study set design and practice designing stage sets. 1½ hrs. lecture, 1½ hrs. lab/wk. for 5 wks. (CDR 3745)

THEA 255
CHILDREN'S THEATER II (3CR)
Prerequisite: THEA 135
Students experienced in performing for children will adapt plays and focus on techniques such as mime, puppetry, improvisation and choral readings. Students will prepare material for their own selection and adapt it to the needs of the class and the audience. Performances will be presented to area grade school children. 3 hrs/wk. plus rehearsals and performances. (CDR 3408)

THEA 258
THE SHAKESPEARE PLAYS (3CR)
This course is an introduction to the plays of Shakespeare. Students will read and view on cable television selected plays. (CDR 5588)

119
STUDENT AND INSTRUCTIONAL SERVICES

Counseling Center
Adults Unlimited Program
Testing/Assessment Center
Career Planning and Placement Center
GED Program
Project CLEAR
Hearing Impaired Program
Gallaudet College Extension Center
Child Play Center
Dental Hygiene Clinic
Student Activities Program
Campus Ledger
Athletics
Library
Parking
Student Code of Conduct
Access to Student Information
STUDENT AND INSTRUCTIONAL SERVICES

COUNSELING CENTER
JCCC's counseling staff is on hand to help you with academic, career or personal problems. You may see a counselor on a walk-in basis or by appointment. Here is what the Counseling Center has to offer:

• Information about JCCC academic and career programs: A counselor can answer your questions about JCCC's academic and career programs and will help you develop a program plan.
• Career planning and exploration assistance: Are you undecided about a career? Or do you need help in pursuing the career you have chosen? The Counseling Center's interest tests and educational information can give you insight into yourself and into career possibilities and strategies.
• Current transfer information: If you are planning to transfer to a four-year institution, come to the Center before you enroll in courses at JCCC. A counselor can explain which courses will transfer and which courses are recommended by the institution you plan to attend.
• Help in solving social or personal problems: Learn to solve your social or personal problems through a self-examination process. A counselor will guide you in evaluating your attitudes, goals and values. Community referrals also are available.
• Orientation to the College: If you are new to JCCC, getting around the College may be difficult at first. A Counseling Center orientation session may help you get better acquainted. Individual and group sessions are available.

ADULTS UNLIMITED PROGRAM
If you’re an adult returning to school, you can get assistance in educational, career and personal decision-making and goal-setting through the Adults Unlimited program. Counseling, information and referral services also are provided. The program publishes a monthly newsletter for adult students and sponsors support groups and non-credit workshops. The services are available on a walk-in basis or by appointment in the Counseling Center.

TESTING/ASSESSMENT CENTER
The Center provides a variety of services including English, Math and reading assessment for new student placement, telecourse testing and administration of standardized tests and vocational interest inventories. JCCC students seeking credit for life experiences apply for Experience Based Education (EBE) credit through the Center. A service of special interest to instructors is instructional make-up testing for students who have missed regularly-scheduled exams.

CAREER PLANNING AND PLACEMENT CENTER
Career education, individual and group career planning and information on more than 20,000 occupations are among the services available through the center. Hundreds of current job openings are listed and extensive community resource tiles are available. You can receive help in doing research for classroom assignments and on topics related to career/life planning and job hunting. Workshops and individual appointments are available throughout the year. Stop by the center for an appointment.

GED PROGRAM
If you plan to obtain a high school equivalency diploma by taking the General Educational Development Test (GED), contact the Testing/Assessment Center for details. If you are ready now to take the GED Test, call to schedule a testing appointment.

Help in preparing for the GED Test is available through a variety of classes and through individual instruction.

How do you decide if you need help in preparing? The official GED Practice Test is available through the Testing/Assessment Center to help you decide if you’re ready to take the GED Test. It will help you identify areas of strength and weakness and determine whether you need more study before you take the test.

PROJECT CLEAR
Mentally retarded adults are offered a variety of non-credit, continuing education opportunities through College Learning Experiences for Adults with Retardation, better known as Project CLEAR. The program focuses on independent living skills and life-enhancing experiences through classes offered on Saturdays and weekday evenings during the fall, spring and summer.

Project CLEAR also offers programs for parents of mentally retarded individuals and for other interested community members. Contact the Special Services Division for complete information.

HEARING IMPAIRED PROGRAM
The Hearing Impaired Program at JCCC offers credit and non-credit opportunities which prepare hearing impaired students to enter the mainstream of regular career and academic programs at JCCC.

Services available through this program include support for admission and orientation and supportive services such as notetaking, interpreting and counseling. A variety of courses is available each semester including speech therapy, manual communications and the fundamentals of math and English.

A college preparatory program is offered each summer to help students adjust to college life.

In addition, the program makes an effort to inform the community and others throughout Kansas how to better deal with the hearing-impaired population. For more information, contact the Special Services Division.

GALLAUDET COLLEGE EXTENSION CENTER
JCCC established the Gallaudet College Extension Center in cooperation with Gallaudet College in Washington, D.C. – the world’s only four-year liberal arts college for the deaf.

The Center serves a six-state area through workshops, seminars, conferences and consultation. It is the work of the Center to provide educational oppor-
tunities to deaf adults; develop an awareness about deafness in the hearing community; offer technical assistance to area agencies and services; and train parents, professionals, deaf adults and other interested persons. For more information, contact the Special Services Division.

**DENTAL HYGIENE CLINIC**

You you and your family may have your teeth checked, cleaned, X-rayed and treated with fluoride for a small fee at the Dental Hygiene Clinic. Dental hygiene students, supervised by licensed dentists and dental hygienists, will provide the services and show you how to care for your teeth in the future. Call the Clinic to make an appointment.

**STUDENT ACTIVITIES PROGRAM**

JCCC's Student Activities Office brings you cultural, social and recreational activities throughout the year, in cooperation with the Campus Activities Board (CAB). Activities you can expect each year include the Friday Cinema Series, Captioned Films for the Deaf Series, live entertainment in the Corner Lounge, guest lecturers, film festivals and various recreational activities.

The Student Activities Office also works with the Student Senate which acts as a sounding board for student issues. The Student Senate, a totally volunteer organization, has been responsible for getting the first honorary organization on campus and has been involved in various activities and campus issues.

Student activities will give you the chance to develop your leadership skills and may stimulate your interest in a particular class or program. They also will give you the opportunity to interact with staff and students in a friendly, relaxed atmosphere.

For information on how to get involved in Campus Activities Board, Student Senate or to form an organization, contact the director of Student Activities. For information on upcoming events, call the WHAT'S HAPPENING HOTLINE, 541-3888.

**CAMPUS LEDGER**

The Campus Ledger is a student-run newspaper which emphasizes news and programs. Ultimate editorial responsibility rests with the editor who in turn is responsible to the JCCC Publications Board.

**ATHLETICS**

Men compete in baseball, tennis, basketball, golf, soccer and track at JCCC. Women may take part in tennis, volleyball, basketball, softball and track. The College will participate in other intercollegiate athletics as approved by the Board of Trustees. JCCC is a member of the National Junior College Athletic Association (NJCAA) and the Kansas Jayhawk Community College Conference. You must meet NJCAA and conference eligibility rules to compete in intercollegiate activities.

JCCC also offers a full range of intramural activities which enable you to develop your skills and make friends during your leisure time.

**LIBRARY**

The JCCC library maintains a collection of books, periodicals, films, slides, tapes, microfilm and other resources available to students and Johnson County residents. A highly trained staff of librarians and library aides are on hand to assist you in finding and using the resources.

Currently, the library houses more than 45,000 books, 500 current periodicals, 250,000 documents on microform and hundreds of slides, videotapes and audio recordings. A computer maintains a catalog of these materials.

Books are arranged on shelves according to the Library of Congress (LC) classification. A printed outline of the LC classification is available at the circulation desk.

You must use reference books, most audio-visual materials and all magazines and newspapers in the library. You may use the coin-operated photocopier if you need to make copies.

Books are due 21 days from the day you check them out. You will be charged 10 cents a day for each item you keep out past the due date. The maximum fee you may be charged is the cost of the book or $5, whichever is greater. If you lose a book, you will be charged the cost of the book plus a $2 service charge.

Sometimes your instructor may place materials on reserve and specify a loan period. You will be charged 25 cents an hour on each item you keep out past the time it is due, or $1, whichever is less.

Your transcripts or grades will not be released until you pay all library fees.

**PARKING**

Parking is free for all JCCC students. You do not have to register your vehicle. Parking lots are marked with signs directing you to the designated parking areas. You may not park in the handicapped students' Lots 3, 6 and 10 unless you have a permit.

**HANDICAPPED PARKING**

If you are permanently or temporarily disabled, you may obtain a parking permit from the Special Services Office. This permit will allow you to park in designated spaces on campus. A physician's certification may be required to receive this permit.

**MOTORCYCLES AND MOTORSCOOTERS**

If you are riding a motorcycle or motorscooter, you are expected to comply with all parking and traffic regulations.

**BICYCLE RACKS**

Racks are available throughout the campus. You do not need to register your bicycle.

**EMERGENCY PARKING OR LOADING**

Special permits are available at the switchboard.

**HANDICAPPED LOT VIOLATION**

Your vehicle will be immobilized or towed after you receive two citations for parking in a handicapped lot without a permit, Monday through Saturday, 7 a.m. to 9 p.m. You will be charged $10 for removal of the immobilizer.
IMMOBILIZATION OR TOWING
Your vehicle will be immobilized or towed away if:
1. it is parked in a handicapped parking lot or a
   loading area without a permit;
2. you refuse to move your vehicle after a security
   officer requests you do so;
3. it is blocking a dock or sidewalk or is parked on the
   grass;
4. you park your car or truck in the motorcycle area.

ACCIDENTS
If you are involved in an accident on campus, notify the
Security Office immediately and file an accident report.

STUDENT CODE OF CONDUCT
JCCC reserves the right to suspend you for any
conduct which is detrimental to the best interests of
the College. The following violations of the College's
standards for student conduct may result in sus-
pension or other disciplinary action:
• threatening the life or physical safety of others;
• substantially disrupting, impeding or interfering with
  the operation of the College;
• substantially infringing on or invading the rights of
  others;
• damaging College equipment or facilities;
• violating conditions of probation;
• academic dishonesty;
• willfully violating any published regulation for
  student conduct adopted or approved by the Board of
  Trustees;
• conduct which results in your conviction of a federal
  or state offense. (The College does not prohibit
  the participation in College programs of students who
  have previous criminal records for which they have
  met the requirements of the law.)

The Dean of Student Services is responsible for any
temporary or permanent student suspension. You will
have the opportunity to discuss the suspension with
the Dean before any formal action is taken, unless the
suspension is a result of action involving an immediate
danger to life, limb or property.

The College considers suspension a serious action.
It will make every effort to keep you in school and to
help you fulfill your objectives.

There is a written policy about suspension that
protects your rights as an individual. All procedures
are handled in writing with enough time for you to
appeal the suspension through a student discipline
committee of the College to the President of the
College and to the Board of Trustees. You may obtain
a copy of this policy from the Dean of Student
Services.

HOW TO FILE A GRIEVANCE
A grievance may concern an alleged violation of
school policies, alleged infringement of your rights as
a student and other such problems concerning
students, College staff and authorized College activ-
ities. You must follow these procedures to process
your complaint or grievance:

(a) You must attempt to rectify the grievance
    with the supervisor of the area in which the
    alleged violation occurred within 10 College
    working days. Every effort will be made to resolve
    the grievance at the lowest possible level.
(b) Consult with the appropriate supervisor
    (e.g. instructor, coordinator or division director) and
    attempt to resolve the grievance through informal
    discussions. The supervisor must inform you in writing
    of any decision made and the reason for that decision
    within five College working days. If you feel the
    grievance is not resolved, you may submit a grievance
    in writing to the next level of authority within 10
    College working days from the time you filed the
    complaint at the previous level. Each level appealed
to will have five College working days to respond.
(c) Consult with the Dean of Student Services.
    (1) Submit the grievance in writing to the Dean of
        Student Services and request a conference. (2) The
        Dean will notify the Affirmative Action/Title IX Officer
        of the College in writing of any grievance concerned
        with alleged discrimination. (3) The Dean must,
        within five College working days, inform you in
        writing of any decision made and the reasons for
        making that decision. (4) You may appeal in writing to
        the President of the College if the grievance is not
        resolved with the Dean of Student Services within five
        College working days after the Dean has received the
        written grievance.
(d) Consult with the President of the College.
    (1) The President must receive the written appeal
        within 10 College working days from the time you
        filed the grievance with the Dean of Student Services.
        (2) The President must, within five College working
        days, inform you in writing of any decision made and
        reasons for that decision. (3) The decision of the
        President is final.

If you do not take the next step in the grievance
procedure within the stated time period, the grievance
shall be considered settled.

YOUR RIGHTS AS A GRIEVANT
No reprisals of any kind will be taken against you by
any member or representative of the administration
for filing a grievance.

ACCESS TO STUDENT INFORMATION
Your rights concerning access to your educational
records are spelled out in Public Law 99-370 as
amended by Public Law 99-568 and in regulations
published by the Department of Health, Education
and Welfare in the June 17, 1976 Federal Register.
The law and regulations published by HEW require
educational institutions to:
• provide you an opportunity to inspect your educa-
tional records. Contact the JCCC Admissions/
Records Office.
• provide you the opportunity to challenge through a
hearing the content of your educational records if you
believe they contain information that is inaccurate,
   misleading or in violation of the right to privacy.
   (Grades are not subject to challenge.)
• limit disclosure of information from your record to
   those who have your written consent or to officials
specifically permitted within the law, such as college officials and — under certain conditions — local, state and federal officials.

If you are a dependent student, under 18 years of age, your parents will have access to your educational record. The College will assume you are a dependent if your parents provide a written statement that you are listed as a dependent on their federal income tax forms.

JCCC does not publish a student directory. JCCC may, upon request, provide the following information to authorized individuals:

- student's name
- address
- telephone number
- date and place of birth
- major field of study
- participation in officially recognized activities
- sports — weight and height of athletic team members
- dates of attendance
- degrees
- awards received
- most recent previous educational institution attended

If you object to the disclosure of any of the above information, notify the Admissions/Records Office in writing which items you do not want released without your consent.

You may obtain a copy of the College’s policies on access to student information and implementation of these procedures from the Admissions/Records Office.

You may file a complaint with the Department of Education if you believe your rights under this law have been violated and if efforts to resolve the situation through JCCC appeal channels have proved unsatisfactory. Send your complaint to:

F.E.R.P.A., Department of Education
Room 514 E
200 Independence Avenue SW
Washington, DC 20201

Orientation programs for new students are held at the beginning of each semester through the Counseling Center.

Information about scholarships, grants, loans and jobs is available from the Financial Aid Office, first floor, GEB.
COMMUNITY EDUCATION

Continuing Education
Community Development
Community School Program
Cultural Arts Programming
A Program for Those Over 60
Business and Industry Institute
On-Site Education/Employee Development
Clinics for Youth
Special Events
Child Care Directory
Tours
Speakers Bureau
Courses by Television
Conferences and Workshops
Extension Courses
Use of College Facilities
Community Theatre, Chorus, Jazz Band,
Arts Council of Johnson County
COMMUNITY EDUCATION

What is community education at JCCC? It's non-credit courses and activities — formal classes or non-traditional programs — cultural and recreational offerings designed specifically to meet the needs of the community and using school, college, library and other facilities. Community education activities at JCCC are created using input from you and the community.

CONTINUING EDUCATION

Would you like to improve your on-the-job performance, develop a new skill or pursue a leisure-time interest? Try the workshops, seminars and courses offered through JCCCs continuing education program. Courses are non-credit and are held at convenient locations throughout Johnson County. Bulletins announcing available courses are mailed to all Johnson County residences three times a year.

Courses and activities are offered in these areas:
- Arts, Crafts and Hobbies
- Aviation
- Business Management
- Career Planning
- Childhood Education
- Communications
- Computer
- Cultural Arts
- Dance
- English as a Second Language
- Family Life
- Film
- Foods
- Foreign Language
- GED Tests and CLEP
- Health and Safety
- Horsemanship
- Home Management
- Industrial Arts
- Money Management/Finance
- Music
- Office Education
- Performing Arts
- Personal Development
- Practical Know-How
- Photography
- Physical Development
- Reading and Math
- Real Estate
- Science
- Sewing
- Sign Language
- Sports and Recreation
- Travel for Credit

COMMUNITY DEVELOPMENT

If you are concerned about development, stabilization or change in your community, why not confront these issues with others who care? JCCC is often a meeting ground and catalyst for citizens interested in:
- developing leadership skills
- examining proposed amendments to the state constitution

- meeting and questioning candidates for political office
- exploring problems and opportunities related to youth, women, single adults, the elderly, and minority groups
- discussing health services, county reorganization, land use, water and environment
- joining Great Decisions discussion groups focusing on foreign policy decisions
- considering today's trends in ethics and economics
- searching for values affecting individuals and society

COMMUNITY SCHOOL PROGRAM

If you live in one of the smaller urban or rural areas in Johnson County, you do not have to travel far to take JCCC courses. JCCC comes to you through its community school program established in Olathe and co-sponsored by Olathe Unified School District 233; in Stanley-Stithwell, co-sponsored by Blue Valley Unified School District 229; in DeSoto, co-sponsored by DeSoto Unified School District 232; in Spring Hill, co-sponsored by Spring Hill Unified School District 230; and in Gardner-Edgerton-Antioch, co-sponsored by Unified School District 231. Classes are held in local schools and are selected jointly by community advisory committees and JCCC. Each community school also has a community liaison who assists in selecting courses and who acts as link between the community and JCCC.

CULTURAL ARTS PROGRAMMING

There is a rich array of cultural opportunities available in the greater Kansas City area and JCCCs cultural arts program helps you enjoy them. The programming includes classes, lectures, films, concerts and tours on a variety of subjects — architecture, antiques, anthropology, art, jewelry, theatre, music, photography, astronomy, travel, nature and commerce. The College cooperates with local schools, colleges, institutions and organizations to offer you an exciting program of cultural activities both on and off campus.

A PROGRAM FOR THOSE 60 OR MORE

Are you 60 or more and a Johnson County resident? You are in luck — you can join JCCC's Brown and Gold Club! There is no charge to join. And, as a member, you may take College credit and non-credit courses and get into College-sponsored musical, dramatic or athletic programs at no charge on a space-available basis.

In addition to the Brown and Gold Club, JCCC presents programs for those 60 or more at senior centers, luncheon sites, churches and libraries. Another popular 60 or more activity is Learning Adventures, a full day of programs and involvement with JCCC students and instructors held each semester on campus.

CENTER FOR CONTINUING HEALTH EDUCATION

Johnson County Community College — through the Center for Continuing Health Education — offers to the health professional community quality seminars and workshops designed to meet the challenge of
health care in the '80s. The Center offers a broad range of health education opportunities to growth-oriented practitioners in hospitals, nursing homes, industries, government and other public and private institutions. For information call (913) 888-8500, ext. 3163.

CONTINUING EDUCATION CREDIT
Johnson County Community College is an approved provider of continuing education by the Kansas State Board of Nursing. The following agencies may also approve JCCC's workshops for credit toward license renewal.
- American Association for Respiratory Therapy
- American Dietetic Association
- American Medical Record Association
- American Society for Medical Technology
- American Society of Radiologic Technologists
- American Speech and Hearing Association
- Kansas Chapter, American Physical Therapy Association
- State of Kansas, Behavioral Sciences Regulatory Board
- State of Kansas, Bureau of Nursing Homes

BUSINESS AND INDUSTRY INSTITUTE
The Business and Industry Institute: New Ventures in Training and Professional Development is an arm of Johnson County Community College designed to help business and industry solve training and professional development problems and stimulate economic development. The Institute offers business, industry and government groups all the training, research, consulting and technical assistance the college has to offer ... at a reasonable cost. Among the services offered are:

On Site Training: credit and non-credit courses taught at the business site. Courses can be designed to fit the needs of individual businesses, using their equipment and facilities so employees can learn in the actual working conditions.

On Campus Training: credit and non-credit courses, seminars, workshops and programs in technology, business, health and human services offered on the JCCC campus. Courses and programs can be designed to specifications of individual businesses.

Professional Seminars: professional and management development seminars both on campus and on site.

Professional Resources: resource sharing and problem solving, including assistance with training, equipment, services and consultants.

CLINICS AND COURSES FOR YOUTH
Each year JCCC offers sports clinics and courses for boys and girls from 7-16. The clinics focus on tennis, baseball, basketball, gymnastics, volleyball, softball and soccer.

SPEAKERS BUREAU
Does your organization need a guest speaker? You pick the topic — chances are JCCC's Speakers Bureau can arrange for someone to speak to your organization about it. The Bureau also can arrange performances by music, drama and speech students. Call the Community Services Division at 541-3837.

DIRECTORY SERVICES
JCCC aids in compiling and printing lists of community and government organizations as well as a directory of child care centers in Johnson County. Contact the Community Services Division at 541-3837 for details.

TOURS
Each semester, JCCC offers several "day trips" to nearby communities of historic or artistic interest such as Abilene, Atchison, Lexington, Weston and Jamesport. The tours usually include lunch at a colorful local restaurant. Half-day tours to artistic events, museums and other places of cultural interest also are available.

SPECIAL EVENTS
The many special events JCCC offers each year cover a variety of topics including music, theater, art, astronomy, energy, health, foreign policy, science fiction, film festivals and family fun. Seminars and conferences in parent education, pre-retirement aging and stress management also are offered. In addition, JCCC holds forums on community action throughout the area in cooperation with other organizations.

COURSES BY TELEVISION
Each semester JCCC offers telecourses which make it possible to earn college credit in your own home. Non-credit telecourses also are offered. Each lesson is shown several different times a week — you pick the time most convenient for you. And if you miss a lesson one week, you may view it on videotape in the JCCC library.

You also may save time, money and gas through courses by television. There is no need to come to campus except for a few scheduled class meetings and for exams. That means no hassles with traffic, bad weather or babysitters. Simply switch on your cable television and your living room becomes a classroom.

You can apply college credits earned through telecourses to your associate degree program and in most cases these credits will transfer to other colleges. You may be either a full-time or part-time student at JCCC and there is no limit to the number of telecourses you may take.

It's natural to be apprehensive about learning on your own out of the classroom. But if you are self-disciplined and can learn without supervision, you should have no problems. And if you have questions during the semester, a JCCC instructor will be just a phone call away.

CONFERENCE AND WORKSHOPS
The College's Community Services Division offers a wide range of services to public and private organizations including planning and arranging for seminars, conferences, institutes, short courses and workshops. The College also conducts and co-sponsors workshops and conferences with other institutions and organizations. For more information, contact the Community Services Division at 541-3837.
EXTENSION COURSES
The College provides off-campus community education outreach courses for college credit. Most credit courses offered by the College can be offered at any location if there are enough participants and the environment is conducive to learning. For more information contact the Continuing Education Division.

USE OF COLLEGE FACILITIES
The College encourages community groups to use its facilities for meetings and activities when there is no conflict with College programs. For more information about the use of College facilities contact the Community Services Division.

COMMUNITY THEATER, CHORUS, JAZZ BAND
The College cooperates with The Barn Players, Inc. to bring community theater to Johnson County. An all-volunteer crew produces a summer series of five full-length plays as well as other productions and a Readers theater throughout the year. Training for beginning actors is offered in the fall and spring. The Senior Acting Troupe produces a series of one-act plays dealing with the concerns of aging.

The Johnson County Community Jazz Band presents the big band sound with music from the past and present at concerts held twice a year in JCCC's Little Theater. Community concerts also may be booked through the Community Services Division.

The JCCC Community Chorus rehearses weekly and presents concerts on campus and throughout the community during the academic year. Membership is by audition.

ARTS COUNCIL OF JOHNSON COUNTY
As part of the mission to serve as a cultural center, the College has assumed leadership in establishing and sponsoring the Arts Council of Johnson County. An office with a part-time administrator is maintained on the campus. Funding assistance is received from the Kansas Arts Commission, National Endowment for the Arts, Johnson County Park and Recreation District and the Johnson County Library. The ACJC board is a coalition of more than 25 organizations representing art, education and business. ACJC provides a quarterly arts calendar and newsletter, workshops, services and information to community arts organizations and facilitates cooperative arts programs.
Membership in JCCC's Brown and Gold Club makes campus events and activities available to senior citizens at no cost.
Jerry Atkins
Programmer/Analyst
Degrees not available

Charles Allison
Instructor, Electronics
B.S.E., Miami Institute of Technology
M.S., Pittsburg State University

Jean Alvers
Instructor, Psychology
B.S., Eastern Michigan University
M.A., University of Michigan

David E. Axon
Instructor, Speech
B.A., Park College
M.Ed., Pennsylvania State University

Jonathan P. Bacon
Director, Student Development and Counseling
B.A., M.A., Michigan State University

Larry Bagggerly
Instructor, Spanish
B.A., M.A., University of Missouri at KC

Gerald Bald
Vice President, Administrative Services
B.S., M.Ed., Ph.D., University of Nebraska

Judi A. Bellard
Instructor, Learning Center
A.B., William Jewell College
M.A., University of Missouri at KC

Sharrl L Barker
Instructor, Data Processing
B.S., University of Missouri
M.C.S., North Carolina State University

Thomas M. Barnett
Instructor, Physical Science
B.S., M.S., E. New Mexico University
E.D., N. Texas State University

Timmy J. Bernhart
Art Director/Supervisor, Graphics
B.F.A., KC Art Institute

Rosemary Belos
Instructor, Equine Studies
B.A., Washburn University

Anne F. Bauman
Instructor, English
B.A., Fontbonne College
M.A., Loyola University

Mark M. Bauman
Instructor, German/English
A.B., Benedictine College
M.A., University of Kansas
STL., University of Munich

Stuart A. Beals
Instructor, Photography
B.A., University of Kansas

Larry Beardsley
Instructor, Data Processing
A.A., Highland Community Junior College
B.S., Missouri Western State College

Zohreh Sezed Behbehani
Instructor, General Business
LL.B., University of Tehran
LL.M., University of Missouri at KC

William Benjamin
Instructor/Coordinator, Fire Protection
B.S., M.S., Central Missouri State University

Patricia A. Beut
Administrative Assistant
Degrees not available

Robert Birkenholz
Instructor/Coordinator, Agribusiness
B.S., M.S., Ph.D., Iowa State University

Charles C. Bishop Jr.
Instructor, Social Sciences
B.A., Midland College
M.A., University of Kansas

Joanna C. Bodner
Program Specialist
B.S., University of Kansas
M.S., Indiana State University

Judy Brazil
Instructor, Art
B.A., Avila College
M.A., University of Kansas

Susan Haas Brown
Instructor/Coordinator
B.S., Kansas State University

Gerard Buckley
Program Director, Special Services
B.S.W., Rochester Institute of Technology for the Deaf
M.S.W., University of Missouri at Columbia

Virginia Buckner
Instructor, Life Science
B.A., Vassar College
M.S., University of Missouri at KC

N. Burgess Burch
Instructor, Engineering
B.A., Hendrix College
B.S.C.E., M.S.C.E., University of Arkansas

Mary Jane Burns
Instructor, English
B.A., Benedictine College
M.A., University of Missouri at KC

Wayne R. Busse
Supervisor, Maintenance
Degrees not available

Eugene S. Butler
Instructor, Vocal Music
B.M.E., University of Oklahoma
S.M.M., Union Theological Seminary
D.M.A., University of Missouri at KC

Renee Byczek
Instructor, Dental Hygiene
B.S., Loyola University
M.S., University of Missouri at KC

Margaret M. Caffrey
Librarian
B.A., St. Mary College
B.L.S., Catholic University of America
M.A., University of Missouri at KC

Matt C. Campbell
Instructor, Theater/Speech
B.A., Park College
M.A., Tulsa University

Linda (Lin) Cardenas
Administrative/Continuing Health Education
B.A., Wichita State University

134
Carolyn L. Darby
Instructor, EMT
B.S., Emporia State University

Richard Davis
Executive Director, Business and Industry Institute
B.S.B.A., University of Florida
M.Ed., Ed.D., University of Missouri at Columbia

Dennis Day
Director, Student Activities
B.S., Southwestern Missouri State University
M.S., Southwestern Missouri State University

Linda L. Dayton
Dean of Student Services
B.S., M.S., Emporia State University
Ed.D., University of Kansas

Marela M. Dennis
Publications Editor
B.J., University of Missouri at Columbia

Charles DeVault
Coordinator, Television
B.F.A., Ohio University
M.A., Kent State University

Don Doucette
Director, Institutional Research
B.A., Cornell University
M.A., Ph.D., Arizona State University

Carol Dougherty
Counselor
B.A., Rockhurst
M.Ed., University of Missouri at Columbia

Mary L. Dover
Financial Aid Officer
A.A., Kansas City Missouri Junior College

Kristin Downing
Counselor
B.S., M.S., Emporia State University

John Drysdale
Instructor, Hospitality Management
B.A., Michigan State University

Leon C. Dugger
Instructor, Electronics
B.S.E.E., Colorado State University
M.S.E.E., Air Force Institute of Technology

Richard Dyer
Director, Budget and Grants
B.B.A., M.B.A., University of Missouri at KC

Marla Effingham
Instructor, Nursing
B.S., University of Chicago
M.A., University of Missouri at KC

Carla J. Efts
Food Service Manager
B.S., University of Nebraska

David J. Evans
Instructor, Accounting
B.S.C., University of Iowa
M.Ed., University of Nebraska

James D. Evans
Instructor, General Business
B.S., Kansas State University
M.S., Emporia State University
ROBERT A. KLEIN
Instructor, Psychology
B.A., Texas Christian University
M.A., Ph.D., University of Kansas

Li Ren Fong
Instructor, Mathematics
B.A., National Cheng Chi University
M.S., Fort Hays State University

Peggy Ford
Instructor, Nursing
B.S.N., Kent State University

Mary Jo Fourlier
Instructor, Life Science
B.S., M.Ed., University of Oregon
M.S., University of New Mexico
Ph.D., University of Missouri at KC

John Fowler
Instructor, Energy Technology
B.S., University of Nebraska

Jann Frank
Laboratory Technician
A.A., JCCC
B.S. Kansas State College of Pittsburg
M.S., Pittsburg State University

Edward L. Franklin
Director, Special Services
B.A., M.S., University of Arkansas

Fred H. Frederick
Manager, Administrative Data Processing
Degrees not available

Virginia Freeman
Specialist, Community Services
A.B., University of Kansas
M.S.S.W., University of Missouri at Columbia

Glen E. Gabert
Associate Dean, Planning and Human Resources
B.A., Illinois Benedictine College
M.A., University of Notre Dame
M.E.A., Rockhurst College
Ph.D., Loyola University of Chicago

Carolyn Jean Gangel
Instructor, Nursing
A.A., JCCC
B.S.N., University of Kansas

Sean T. Garvey
Operations Technician/Programmer
A.A., Kansas City Kansas Community College

Rudy Gentry
Instructor, Data Processing
A.B., San Francisco State College
M.S., U.S. Naval Postgraduate School

Dennis J. George
Instructor, Life Science
B.S., Rockhurst College
M.A., University of Missouri at KC

Steven M. Gerson
Instructor, English
B.A., University of Texas
M.A., Southwest Texas State University
Ph.D., Texas Tech University

Barbara J. Gill
Instructor/Coach
B.A., M.S., Baylor University

Ann M. Giososa
Instructor, Medical Records Technology
B.S., M.S., St. Louis University

ARTHUR A. KAHN
Instructor, Physical Science
A.B., Rockhurst College
Ph.D., University of Kansas

Marilynn M. Greve
Executive Secretary to the President
Degrees not available

Lyle E. Groeters
Instructional Support Manager
B.A., Iowa State Teachers College
M.A., Long Beach State College
M.A.L.S., University of Wisconsin at Madison
Ed.D., University of Oklahoma

Bret Gustafson
Photographer
A.A.S., Rochester Institute of Technology

John J. Halligan
Instructor, English
B.A., M.A., Duquesne University
Ph.D., University of Pittsburgh

Arthur A. Hamann
Instructor, Psychology
B.A., Cornell College
S.T.B., Boston University School of Theology
M.A., Boston University
Ph.D., University of Missouri at KC

Roy K. Hamaeck
Instructor, Physical Science
B.S., M.S., Ed.S., Pittsburg State University

Steve Hansen
Instructor/Coordinator, Data Processing
A.A., Metropolitan Community College
B.A., M.S., University of Missouri at KC

Harold Harp
Instructor, English
B.S., M.A., Central Missouri State College

Duane Harper
Instructor, Accounting
B.S., M.S., M.B.A., Ft. Hays State College
M.B.A., Ft. Hays State University

John E. Harris
Instructor/Coordinator, Life and Home Management
B.F.A., University of Kansas

Edward R. Hartwick
Instructor/Coordinator, Electronics
B.S., Pittsburg State University
M.S., Central Missouri State University

Gene Haun
Director, Facility Planning and Management
B.S., Emporia State University

J. Will Hendriks
Systems Consultant
B.S., University of Illinois

Jack Hennington
Instructor, Mathematics
B.S., Emporia State University
M.S., University of Kansas

Joseph M. Hentzen
Manager, Bookstore
Degrees Not Available

William Hikkersen
Instructor, Energy Technology
A.A.S., B.S.T., University of South Dakota at Springfield

Ron D. Hicks
Instructor, Art
B.S., M.S., Pittsburg State University
Shirley Hicks  
Instructor, Nursing  
B.S.N., Marymount College  
M.S., Emporia State University

David E. Hill  
Instructor/Coordinator, Drafting/Pre-Engineering  
B.S., M.S., Emporia State University

Jean Howard  
Instructor, Art  
B.F.A., M.F.A., Ed.D., University of Kansas

Tom Hughes  
Instructor/Coordinator, CAD/CAM Systems  
A.A.S., Kalamazoo Valley Community College

Robert Hunt  
Instructor, Physical Science  
B.S.Ed., University of Kansas  
M.S., M.S., Rensselaer Polytechnic Institute

Teresa Huslig  
Data Processing Lab Supervisor  
B.S., Kansas State University

Mary Beth Izard  
Instructor, General Business  
B.S., Indiana State University  
M.B.A., University of Missouri at KC

H. Eugene Jack  
Instructor/Coordinator, Physical Science  
B.S., M.S., Pittsburg State University

James Jackson  
Instructor, Humanities  
B.A., Arkansas Polytechnic College  
M.Ed., University of Arkansas  
Ed.D., University of Kansas

Marilyn Jackson  
Instructor, Social Science  
A.B., A.M., M.S., Indiana University

Beverly C. Jameson  
Instructor, Data Processing  
A.A., JCCC  
B.S., M.S.Ed., University of Kansas

Richard Janvis  
Supervisor, Safety and Security  
A.A., Johnson County Community College  
B.A., Avila College  
M.A.J., Wichita State University

Barbara J. Joiner  
Instructor, Nursing  
B.S.N., University of Toronto  
M.A., University of Kansas

Carolyn J. Kadel  
Instructor, Social Science  
A.B., Elon College  
M.A.T., Brown University

Nancy A. Kalman  
Instructor/Coordinator, Life Science  
B.A., M.S., University of Iowa  
Ph.D., University of Kansas

Janice Kanda  
Instructor/Coordinator, Special Services  
A.S., Dallas Baptist College  
B.S., West Texas State University  
M.Ed., Texas A&M University

Norman H. Karl  
Instructor/Coordinator, Marketing and Management  
B.A., Wingate College  
M.A., University of Northern Colorado

William C. Karnazes Jr.  
Instructor, Physical Science  
A.A., Kansas City Kansas Community College  
B.A., M.A., University of Kansas

Linda Chesney Kaut  
Public Information Writer/Assistant  
B.A., Baker University

Andrea Kampf  
Librarian  
A.B., Brandeis University  
M.A., The Johns Hopkins University  
M.S., Simmons College

Kyong-Mei Kim  
Instructor, Economics/Business  
B.S., Nihon University  
M.A., California State University  
Ph.D., Union Graduate School

Juliet Kincaid  
Instructor, English  
B.A., Marshall University  
M.A., University of Colorado  
Ph.D., Ohio State University

Ed Kindermann  
Instructor, Physical Science  
B.A., University of Missouri at KC

Landon C. Kirchner  
Director, Humanities and Social Sciences  
A.S., First Junior College  
A.B., A.M., University of Michigan

Walt E. Klauser  
Instructor, English  
B.A., College of Emporia  
M.S., Emporia State University

Nancy L. Krause  
Instructor, Learning Center  
B.S., Central Missouri State College  
M.A., University of Missouri at KC

Fred Krees  
Instructor, Social Science  
B.A., University of Kansas  
M.A., University of Missouri at KC

Lyle D. Krahbriel  
Instructor, Electronics  
B.S.E.E., Kansas State University  
M.S.E.E., A.M., University of Missouri at Columbus

Donna Krichiver  
Instructor, Mathematics  
B.A., M.S., Northeastern Illinois

William E. Kuehn  
Supervisor, Custodial  
B.S., Concordia Teachers College  
B.A., Warburg College

Jane Kuo  
Programmer  
B.A., Soochow University, Taiwan  
M.A., University of Kansas

Allan W. Kurkdjian  
Vice President, Academic Affairs  
B.S., St. Louis University  
M.B.A., M.S., University of Pittsburgh  
M.L.A., Baker University  
Ed.D., University of Kansas
Dennis Kurogi  
Instructor/Coordinator, Emergency Medical Technology  
Degrees not available

R.E. 'Budd' Langley  
Instructor, Drafting  
A.A., Johnson County Community College

Darwin D. Lawyer  
Counselor  
A.A., Estherville Junior College  
B.A., Northwest Missouri State College  
M.Ed., University of Missouri at Columbia

Joseph LaCluyze  
Admissions and Records Officer  
B.S.W., University of Kansas

Mariele Lerner  
Instructor, Journalism  
B.A., University of Arizona  
M.A., N. Illinois University

Dane Lomberg  
Associate Dean, Community Education  
B.S., University of Kansas  
A.M., University of Northern Colorado

Jim R. Losing  
Instructor, Data Processing  
B.A., W. New Mexico University  
M.A., K.S., University of Arizona

William A. Lozano  
Instructor, Humanities  
A.B., M.A., Wayne State University  
Ph.D., Michigan State University

Arden MacDowell  
Instructor, Special Services  
B.S., Gallaudet College  
M.Ed., West Maryland College

Wayne F. Mackey  
Instructor, Mathematics  
B.A., M.S., University of Arkansas

Penny L. Marshall  
Instructor, Nursing  
B.S.N., Washburn University

Elizabeth A. Matthews  
Instructor, Dental Hygiene  
B.S., Indiana University of Pennsylvania  
M.S., University of Missouri at KC

Roger Mayhugh  
Accountant  
A.A., Metropolitan Junior College  
B.S., University of Missouri at Columbia  
M.B.A., Central Missouri State College

Sonny Maynard  
Instructor/Coach  
B.A., Southwestern College  
M.S., Oklahoma State University

Edward V. McCarthy  
Director, Auxiliary Services  
Degrees Not Available

Joan E. McCrillis  
Instructor, Fashion Merchandising  
B.S., M.S., Kansas State University

Dawn McDonough  
Business and Industry Training Consultant  
B.S., University of Minnesota  
M.A., Northwestern University

Sara McElhenny  
Manager, Child Play Center  
B.A., University of Kansas

Sylvie J. McMorris  
Instructor, Nursing  
B.S.N., University of Kansas  
M.S., Emporia State University

Mickey McWilliams  
Director, Engineering and Technology  
B.S., Wayne State University  
M.A., E. Michigan University  
Ed.S., Michigan State University

Al Mottenburg  
Instructor, Administration of Justice  
B.S., University of Missouri at Columbia

Larry Mills  
Instructor, ABE/GED  
B.S., Central Missouri State University  
M.S., University of Missouri at KC

Wayne Munch  
Instructor, Special Services  
B.S., Gallaudet College

Ellen Mohr  
Instructor, Writing Center/English  
B.S., M.A., Northwest Missouri State College

Glen V. Moser  
Instructor/Coach  
B.S., M.S., Bowling Green State University

Ralph Mullins  
Instructor, Automotive Technology  
A.B., Harris Teachers College

Carolyn Neptune  
Instructor, Mathematics  
B.S., M.S., Purdue University

Lois E. Nettleship  
Instructor, Humanities  
A.B., Sarah Lawrence College  
M.A., Columbia University  
Ph.D., University of Sussex

Marilou Nichols  
Community Services Program Assistant  
Degrees not available

Penny Nichols  
Counselor  
B.S., Indiana State University  
A.M., West Virginia University

Lafayette Norwood  
Instructor/Coach  
B.A., Southwestern  
M.A., Wichita State University

Ronald H. Oetting  
Instructor, Mathematics  
B.S., Central Missouri State University  
M.A., Louisiana State University

Leland Olmsted  
Instructor, Electronics  
B.S.E.E., University of Missouri at Columbia
<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harry Parkhurst</td>
<td>Counselor</td>
<td>B.S., Southwest Missouri State College</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M.Ed., University of Missouri at Columbia</td>
</tr>
<tr>
<td>Michael Pener</td>
<td>Instructor/Coordinator, Paraleg Program</td>
<td>A.B., University of Missouri at Columbia</td>
</tr>
<tr>
<td></td>
<td></td>
<td>J.D., L.L.M., University of Missouri at KC</td>
</tr>
<tr>
<td>Reenie Pennell</td>
<td>Instructor, Dental Hygiene</td>
<td>B.S., University of Missouri at KC</td>
</tr>
<tr>
<td>Lloyd Penniston</td>
<td>TV Engineer</td>
<td>Degrees not available</td>
</tr>
<tr>
<td>Robert Perry</td>
<td>Instructor, Social Science</td>
<td>B.A., Northwestern University</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M.A., University of California</td>
</tr>
<tr>
<td>Robert W. Pinker</td>
<td>Instructor, Physical Science</td>
<td>B.S., Capital University</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M.S., Ohio State University</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M.B.A., University of Kansas</td>
</tr>
<tr>
<td>Jack Pisiotto</td>
<td>AV Specialist</td>
<td>Degrees Not Available</td>
</tr>
<tr>
<td>Fred T. Plybon</td>
<td>Instructor, Accounting</td>
<td>B.S., University of Maryland</td>
</tr>
<tr>
<td>Robert Prater</td>
<td>Director, Accounting Services</td>
<td>B.S.B.A., M.B.A., Central Missouri State College</td>
</tr>
<tr>
<td>Zigmunds Priede</td>
<td>Instructor/Coordinator, Fine Arts</td>
<td>B.A., University of Minnesota</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M.A., University of California at Berkeley</td>
</tr>
<tr>
<td>Doug Proffer</td>
<td>Instructor, Mathematics</td>
<td>B.S., M.S., West Texas State University</td>
</tr>
<tr>
<td>Dan Radakovich</td>
<td>Dean of Instruction</td>
<td>B.A., M.A., Ed.D., University of Wyoming</td>
</tr>
<tr>
<td>J.E.S. Rainfree</td>
<td>Instructor/Coordinator, Information Word Processing</td>
<td>B.S., Central Michigan University</td>
</tr>
<tr>
<td>Buddy Ramos</td>
<td>Counselor</td>
<td>B.S., M.S., Ed.S, Central Missouri State University</td>
</tr>
<tr>
<td>Robert W. Ramsey</td>
<td>Instructor, Mathematics</td>
<td>A.S., Metropolitan Junior College</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B.S., University of Missouri at Columbia</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M.A., Central Missouri State University</td>
</tr>
<tr>
<td>Richard Randolph</td>
<td>Instructor, General Business</td>
<td>B.S., University of Kansas</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M.A., George Washington University</td>
</tr>
<tr>
<td>Larry Rechtfertig</td>
<td>Instructor, Marketing and Management</td>
<td>B.A., University of North Iowa</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M.Ed., Colorado State University</td>
</tr>
<tr>
<td>Steven M. Rego</td>
<td>Television and Cable Technician</td>
<td>Degrees not available</td>
</tr>
<tr>
<td>Marshall Towner</td>
<td>Counselor</td>
<td>A.B., Drury College</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M.A., University of Missouri at KC</td>
</tr>
<tr>
<td>Lawrence Rochelle</td>
<td>Instructor, English</td>
<td>B.Ed., University of Toledo</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M.A., University of Dayton</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ed.S., University of Toledo</td>
</tr>
<tr>
<td>Liliane Rosenheld</td>
<td>Instructor, French</td>
<td>License, La Sorbonne</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M.A., University of Paris</td>
</tr>
<tr>
<td>John W. Russell</td>
<td>Librarian</td>
<td>B.S., Trenton State College</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M.S., Syracuse University</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M.B.A., Kansas State University</td>
</tr>
<tr>
<td>Sam Samuelsen</td>
<td>Director, Data Processing</td>
<td>Services</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B.S., U.S. Naval Academy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M.S., Georgia Institute of Technology</td>
</tr>
<tr>
<td>Peggy Y. Schlossik</td>
<td>Instructor, Secretarial</td>
<td>B.S.E., Pittsburg State University</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M.S., Central Missouri State College</td>
</tr>
<tr>
<td>Karen R. Schory</td>
<td>Instructor/Coordinator, Commercial Art</td>
<td>B.F.A., Kutztown State College</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M.F.A., Rochester Institute of Technology</td>
</tr>
<tr>
<td>Sharon Schrick</td>
<td>Instructor/Coordinator, Fashion Merchandising</td>
<td>B.A., Benedictine College</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M.S., Emporia State University</td>
</tr>
<tr>
<td>Patricia Schroeder</td>
<td>Instructor, Physical Science</td>
<td>B.S., Iowa State University</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M.S., University of Arkansas</td>
</tr>
<tr>
<td>Ann Schwartz</td>
<td>Counselor</td>
<td>M.E., Antioch University</td>
</tr>
<tr>
<td>Betty J. Scott</td>
<td>Instructor/Coordinator, Secretarial Careers</td>
<td>B.S., M.Ed., Central State University</td>
</tr>
<tr>
<td>Penny Beaverton</td>
<td>Instructor, Mathematics</td>
<td>B.A., San Jose State</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M.S., University of Kansas</td>
</tr>
<tr>
<td>Jeffrey Seybert</td>
<td>Research/Evaluation Specialist</td>
<td>B.A., California State College at Long Beach</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M.S., Ph.D., University of Oklahoma</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M.P.A., University of Missouri at KC</td>
</tr>
<tr>
<td>Carolyn M. Shankol</td>
<td>Instructor, Accounting</td>
<td>B.S., M.S., Pittsburg State University</td>
</tr>
<tr>
<td>Sherry Shively</td>
<td>Instructor, Accounting</td>
<td>B.A., Metropolitan State College</td>
</tr>
<tr>
<td>Albert Shopper</td>
<td>Instructor/Coordinator, Metals Fabrication/Manufacturing Technology</td>
<td>B.S., Central Missouri State College</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M.S., Central Missouri State University</td>
</tr>
</tbody>
</table>
Trudy L. Short  
Coordinator, Dental Hygiene  
B.S., University of Nebraska  
M.S., Northern Illinois University

Jesse Staggs  
Counselor  
B.A., B.Th., Kansas City College and Bible School  
M.A., University of Missouri at KC

John A. Skubal  
Manager, Campus Services  
B.S., Emporia State University

B. Jean Smith  
Instructor, Secretarial  
A.A., Hutchinson Community Junior College  
B.S., Emporia State University

Barbara A.W. Smith  
Director, Public Information  
B.A., McNeese State University  
M.S., Oklahoma State University

David Smith  
Instructor, Business Administration  
B.S., M.B.A., Arizona State University

James E. Smith  
Instructor, Instrumental Music  
B.Mus., M.S., Pittsburg State University

Carl Sned  
TV Producer/Director  
B.S., University of Kansas

Jerry Snider  
Instructor, Theater  
B.S., Kansas State Teachers College  
M.S., Pittsburg State University  
Ph.D., Michigan State University

Jacqueline Snyder  
Director, Staff Development  
A.A, Kansas City Kansas Community College  
B.S., Emporia State University  
M.S., University of Kansas

Rodney Stafford  
Instructor/Coordinator, Automotive Technology  
A.A.S., B.S., M.S., State University of New York

Linda Stanley  
Manager, Academic Data Processing  
A.S., Longview Community College

Dale L. Stine  
Instructor, Speech/Debate  
B.S., M.S., Emporia State University

Glenna Stites  
Director, Human Resources  
B.S., Columbia University  
M.A., University of Missouri at KC

Roger Stone  
Instructor, Automotive Technology/Metal Fabrication  
B.S., M.S., Central Missouri State College

Carol Stettrick  
Instructor/Coordinator, Medical Records Technology  
B.A., College of St. Scholastica

Lynda G. Swander  
Instructor, Life Science  
B.S., Wittenberg University  
M.A., Ed., Western Michigan University

Patrick J. Sweaney  
Instructor, Hospitality Management  
Degrees not available

Thomas C. Tarnowski  
Instructor, Photography  
B.A., University of S. Florida  
M.F.A., Rhode Island School of Design

Mary Lou Taylor  
Director, Natural and Health Related Sciences  
B.S., Drury College  
M.A., University of Missouri at KC  
Ph.D., Kansas State University

Paul T. Tebbe  
Instructor/Coordinator, Personal Computer Applications  
A.B., M.A., Spring Hill College  
M.A., Georgetown University

Marlon E. Teel  
Instructor, Life Science  
B.A., Nebraska State College  
M.S., Emporia State University

Erna Telohgreaeber  
Instructor, English  
A.B., Kansas State College of Pittsburg  
B.A., Kansas State University

Roger E. Traver  
Instructor, General Business  
B.A., Illinois Wesleyan University  
M.B.A., Washington University

Jerry L. Vincent  
Instructor/Coordinator, Hospitality Management  
B.S., Oklahoma State University  
M.S., Central Michigan University

James P. Vonhof  
Director, Business and Economics  
B.S., M.A., University of Minnesota

Dorothy Wedsworth  
Instructor, Commercial Art  
B.F.A., Wichita State University  
B.A.E., University of Kansas  
M.F.A., Wichita State University

Sharyl L. Wallace  
Director, JCCC Foundation  
B.A., University of Missouri at KC

G. David Wasson  
Instructor/Coordinator, Business Administration  
B.S., M.S., Central Missouri State College

Michael Waugh  
TV Producer/Director  
B.S., M.S., University of Kansas

Iris Irene Weber  
Interpreter/Specialist  
Degrees not available

Phil J. Wegman  
Coordinator, Testing/Assessment  
B.A., Benedictine College  
M.S., Kansas State University  
Ed.S., University of Missouri at KC

Sally B. West  
Instructor, Dental Hygiene  
A.S., Pensacola Junior College  
B.S., Armstrong State College  
M.S., Columbia University

Judith M. Wilkinson  
Instructor, Nursing  
A.A., JCCC  
B.S.N., Graceland College  
M.A., University of Missouri at KC
Edwin S. Williams  
Data Base Specialist  
B.M.E., University of Santa Clara  
M.S., University of Southern California

James M. Williams  
Director, Communications  
B.S., M.A., Emporia State University

Marilyn Williams  
Instructor, Paralegal  
B.S., University of Kansas  
M.L.S., Emporia State University  
J.D., University of Missouri at KC

Margaret R. Willis  
Instructor, Nursing  
B.S.N., University of Virginia  
M.A., University of Missouri at KC

Nan L. Wilson  
Instructor, General Business  
B.A., Wellesley College  
M.P.A., University of Kansas

Linda L. Winter  
Manager, Career Planning and Placement Center  
B.S.E., M.S., Emporia State University  
Ed.D., University of Kansas

Jerry Wofford  
Coordinator, Police Academy  
B.S., Central Missouri State College  
M.S., Central Missouri State University

Robin L. Woods  
Instructor, Nursing  
B.S.N., Pittsburg State University  
M.N., University of Kansas

Jeffrey Wright  
Instructor, Accounting  
B.S., M.B.A., University of Kansas

Ray Wright  
Instructor, EMICT  
Degree Not Available

Kathleen O. Xidis  
Instructor, Social Science  
B.A., St. Mary's College  
A.M., Ph.D., Indiana University

Robert D. Xidis  
Instructor, English  
B.A., University of Kansas  
A.M., Indiana University  
Ph.D., University of Kansas

Scott A. Yaeger  
Instructor, Humanities  
A.B., A.M., Ph.D., University of Missouri at Columbia

Gay A. Young  
Instructor, Administration of Justice  
A.A., Johnson County Community College  
B.A., Central Missouri State University  
M.A., University of Missouri at KC
<table>
<thead>
<tr>
<th>Accounting</th>
<th>ACCT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration of Justice</td>
<td>ADMJ</td>
</tr>
<tr>
<td>Agribusiness</td>
<td>AGRI</td>
</tr>
<tr>
<td>Anthropology</td>
<td>ANTH</td>
</tr>
<tr>
<td>Art</td>
<td>ART</td>
</tr>
<tr>
<td>Automotive Technology</td>
<td>AUTO</td>
</tr>
<tr>
<td>Aviation</td>
<td>KAV</td>
</tr>
<tr>
<td>Biology</td>
<td>BIOIL</td>
</tr>
<tr>
<td>Biomedical Equipment</td>
<td>BMT</td>
</tr>
<tr>
<td>Business Administration</td>
<td>BUS</td>
</tr>
<tr>
<td>Business Data Processing</td>
<td>DP</td>
</tr>
<tr>
<td>Chemistry</td>
<td>CHEM</td>
</tr>
<tr>
<td>Commercial Art</td>
<td>CA</td>
</tr>
<tr>
<td>Computers: Personal Computer</td>
<td>CPCA</td>
</tr>
<tr>
<td>Correctional Services</td>
<td>KADJ</td>
</tr>
<tr>
<td>Dental Assisting</td>
<td>KDA</td>
</tr>
<tr>
<td>Dental Hygiene</td>
<td>DHYG</td>
</tr>
<tr>
<td>Drafting Technology</td>
<td>DRAF</td>
</tr>
<tr>
<td>Economics</td>
<td>ECON</td>
</tr>
<tr>
<td>Education</td>
<td>EDUC</td>
</tr>
<tr>
<td>Electronics</td>
<td>ELEC</td>
</tr>
<tr>
<td>Emergency Medical Technology</td>
<td>EMICT</td>
</tr>
<tr>
<td>Energy Technology</td>
<td>EMT</td>
</tr>
<tr>
<td>Engineering</td>
<td>EMIC</td>
</tr>
<tr>
<td>English</td>
<td>ENER</td>
</tr>
<tr>
<td>Equine</td>
<td>ENGR</td>
</tr>
<tr>
<td>Fashion Merchandising</td>
<td>ENGL</td>
</tr>
<tr>
<td>Fire Protection/Safety Adm.</td>
<td>ENQU</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>FASH</td>
</tr>
<tr>
<td>Health</td>
<td>FIRE</td>
</tr>
<tr>
<td>Hearing Impaired</td>
<td>FL</td>
</tr>
<tr>
<td>History</td>
<td>HLTH</td>
</tr>
<tr>
<td>Home Economics</td>
<td>HREM</td>
</tr>
<tr>
<td>Horticulture</td>
<td>HIST</td>
</tr>
<tr>
<td>Hospitality Management</td>
<td>HMEC</td>
</tr>
<tr>
<td>Humanitess</td>
<td>HORT</td>
</tr>
<tr>
<td>Interior Merchandising</td>
<td>HMGT</td>
</tr>
<tr>
<td>Interpreter Training</td>
<td>HUM</td>
</tr>
<tr>
<td>Journalism</td>
<td>JOUR</td>
</tr>
<tr>
<td>Learning Center</td>
<td>LC</td>
</tr>
<tr>
<td>Manufacturing Technology</td>
<td>MFTG</td>
</tr>
<tr>
<td>Marketing Management</td>
<td>MKT</td>
</tr>
<tr>
<td>Mathematics</td>
<td>MATH</td>
</tr>
<tr>
<td>Medical Laboratory Technician</td>
<td>KMLT</td>
</tr>
<tr>
<td>Medical Records Technology</td>
<td>MRT</td>
</tr>
<tr>
<td>Metal Fabrication</td>
<td>MFAB</td>
</tr>
<tr>
<td>Music</td>
<td>MUS</td>
</tr>
<tr>
<td>Nursing</td>
<td>NURS</td>
</tr>
<tr>
<td>Occupational Therapy</td>
<td>KOT</td>
</tr>
<tr>
<td>Paralegal</td>
<td>PL</td>
</tr>
<tr>
<td>Philosophy</td>
<td>PHIL</td>
</tr>
<tr>
<td>Photography</td>
<td>PHOT</td>
</tr>
<tr>
<td>Physical Development</td>
<td>PD</td>
</tr>
<tr>
<td>Physical Science</td>
<td>PSCI</td>
</tr>
<tr>
<td>Physical Therapy Assistant</td>
<td>KPT</td>
</tr>
<tr>
<td>Physics</td>
<td>PHYS</td>
</tr>
<tr>
<td>Political Science</td>
<td>POLS</td>
</tr>
<tr>
<td>Psychology</td>
<td>PSYC</td>
</tr>
<tr>
<td>Radiologic Technology</td>
<td>KRAD</td>
</tr>
<tr>
<td>Recreational Leadership</td>
<td>RECL</td>
</tr>
<tr>
<td>Respiratory Therapy</td>
<td>RT</td>
</tr>
<tr>
<td>Secretarial Careers</td>
<td>SEC</td>
</tr>
<tr>
<td>Small Animal Health</td>
<td>KSAH</td>
</tr>
<tr>
<td>Small Engine</td>
<td>SMEG</td>
</tr>
<tr>
<td>Sociology</td>
<td>SOC</td>
</tr>
<tr>
<td>Speech</td>
<td>SPD</td>
</tr>
<tr>
<td>Theater</td>
<td>THEA</td>
</tr>
</tbody>
</table>
COURSES
BY DIVISION
LISTING

Business and Economics Division
Accounting
Business Administration
Business Data Processing
Economics
Fashion Merchandising
Home Economics
Hospitality Management
Interior Merchandising
Marketing Management
Paralegal
Secretarial Careers

Humanities
Music
Philosophy
Photography
Political Science
Psychology
Sociology

Natural and Health-related Sciences Division
Agribusiness
Biology
Chemistry
Dental Assisting
Dental Hygiene
Emergency Medical Intensive Care Training
Emergency Medical Technology
Health
Horticulture
Medical Laboratory Technician
Medical Records Technology
Nursing
Occupational Therapy
Physical Science
Physical Therapy Assistant
Physics
Radiologic Technology
Respiratory Therapy
Small Animal Health

Engineering and Technology Division
Automotive Technology
Aviation
Biomedical Equipment Technology
Drafting Technology
Electronics
Energy Technology
Engineering
Fire Protection/Public Safety Adm.
Manufacturing Technology
Mathematics
Metals Fabrication
Small Engine Repair

Physical Development and Athletics Division
Physical Development
Recreational Leadership

Humanities and Social Sciences Division
Administration of Justice
Anthropology
Art
Commercial Art
Correctional Services
Education
History

Special Services Division
Hearing Impaired
Interpreter Training
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free Protection &amp; Public Safety Program</td>
<td>38</td>
</tr>
<tr>
<td>Foreign Language Courses</td>
<td>82</td>
</tr>
<tr>
<td>Foreign Students</td>
<td>10</td>
</tr>
<tr>
<td>Gallaudet College Extension Center</td>
<td>122</td>
</tr>
<tr>
<td>GED Program</td>
<td>122</td>
</tr>
<tr>
<td>Grading System</td>
<td>19</td>
</tr>
<tr>
<td>Graduation Requirements</td>
<td>20</td>
</tr>
<tr>
<td>Handicapped Parking</td>
<td>123</td>
</tr>
<tr>
<td>Health Courses</td>
<td>83</td>
</tr>
<tr>
<td>Health Professionals, Programming</td>
<td>128</td>
</tr>
<tr>
<td>Hearing Impaired Courses</td>
<td>83</td>
</tr>
<tr>
<td>Hearing Impaired Program</td>
<td>122</td>
</tr>
<tr>
<td>High School Students – College Now</td>
<td>11</td>
</tr>
<tr>
<td>High School Transcripts</td>
<td>10</td>
</tr>
<tr>
<td>History Courses</td>
<td>84</td>
</tr>
<tr>
<td>History of College</td>
<td>4</td>
</tr>
<tr>
<td>Home Economics Courses</td>
<td>84</td>
</tr>
<tr>
<td>Home Economics Program</td>
<td>39</td>
</tr>
<tr>
<td>Honors, Academic</td>
<td>20</td>
</tr>
<tr>
<td>Horticulture Courses</td>
<td>85</td>
</tr>
<tr>
<td>Hospitality Management Courses</td>
<td>85</td>
</tr>
<tr>
<td>Hospitality Management Program</td>
<td>40</td>
</tr>
<tr>
<td>Humanities Courses</td>
<td>87</td>
</tr>
<tr>
<td>Independent Study</td>
<td>18</td>
</tr>
<tr>
<td>Information/Word Processing Courses</td>
<td>87</td>
</tr>
<tr>
<td>Information/Word Processing Program</td>
<td>41</td>
</tr>
<tr>
<td>Intent to Graduate</td>
<td>20</td>
</tr>
<tr>
<td>Intercollegiate Athletics</td>
<td>123</td>
</tr>
<tr>
<td>Interior Merchandising Courses</td>
<td>87</td>
</tr>
<tr>
<td>Interior Merchandising Program</td>
<td>42</td>
</tr>
<tr>
<td>International Education</td>
<td>18</td>
</tr>
<tr>
<td>International Students</td>
<td>10</td>
</tr>
<tr>
<td>Interpreter Training Courses</td>
<td>88</td>
</tr>
<tr>
<td>Interpreter Training Program</td>
<td>42</td>
</tr>
<tr>
<td>Journalism Courses</td>
<td>90</td>
</tr>
<tr>
<td>KCRCHE</td>
<td>5, 19</td>
</tr>
<tr>
<td>Late Registration Fee</td>
<td>11</td>
</tr>
<tr>
<td>League for Innovation</td>
<td>5</td>
</tr>
<tr>
<td>Learning Center Courses</td>
<td>90</td>
</tr>
<tr>
<td>Library</td>
<td>123</td>
</tr>
<tr>
<td>M</td>
<td></td>
</tr>
<tr>
<td>Manufacturing Technology Courses</td>
<td>91</td>
</tr>
<tr>
<td>Manufacturing Technology Program</td>
<td>43</td>
</tr>
<tr>
<td>Marketing Management Courses</td>
<td>92</td>
</tr>
<tr>
<td>Marketing Management Program</td>
<td>43</td>
</tr>
<tr>
<td>Mathematics Courses</td>
<td>93</td>
</tr>
<tr>
<td>Medical Laboratory Technician Courses</td>
<td>95</td>
</tr>
<tr>
<td>Medical Laboratory Technician Program</td>
<td>44</td>
</tr>
<tr>
<td>Medical Records Technology Courses</td>
<td>96</td>
</tr>
<tr>
<td>Mental Health Technology Courses</td>
<td>97</td>
</tr>
<tr>
<td>Mental Health Technology Program</td>
<td>44</td>
</tr>
<tr>
<td>Metal Fabrication Courses</td>
<td>97</td>
</tr>
<tr>
<td>Metal Fabrication Program</td>
<td>45</td>
</tr>
<tr>
<td>Military Service, Credit For</td>
<td>19</td>
</tr>
<tr>
<td>Mission of the College</td>
<td>4</td>
</tr>
<tr>
<td>Music Courses</td>
<td>98</td>
</tr>
<tr>
<td>Name/Address Change</td>
<td>10</td>
</tr>
<tr>
<td>Non-Discrimination</td>
<td>3</td>
</tr>
<tr>
<td>Non-Resident Tuition</td>
<td>11</td>
</tr>
<tr>
<td>Nursing Courses</td>
<td>102</td>
</tr>
<tr>
<td>Nursing Program</td>
<td>45</td>
</tr>
<tr>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Occupational Therapy Assistant Program</td>
<td>46</td>
</tr>
<tr>
<td>Occupational Therapy Courses</td>
<td>102</td>
</tr>
<tr>
<td>On-Site Education</td>
<td>129</td>
</tr>
<tr>
<td>P</td>
<td></td>
</tr>
<tr>
<td>Paralegal Courses</td>
<td>104</td>
</tr>
<tr>
<td>Paralegal Program</td>
<td>46</td>
</tr>
<tr>
<td>Pass/Fail Grading System</td>
<td>19</td>
</tr>
<tr>
<td>Parking</td>
<td>123</td>
</tr>
<tr>
<td>Personal Concerns</td>
<td>124</td>
</tr>
<tr>
<td>Philosophy Courses</td>
<td>105</td>
</tr>
<tr>
<td>Photography Courses</td>
<td>106</td>
</tr>
<tr>
<td>Physical Development Courses</td>
<td>106</td>
</tr>
<tr>
<td>Physical Science Courses</td>
<td>108</td>
</tr>
<tr>
<td>Physical Therapy Assistant Program</td>
<td>47</td>
</tr>
<tr>
<td>Physical Therapy Courses</td>
<td>109</td>
</tr>
<tr>
<td>Physics Courses</td>
<td>110</td>
</tr>
<tr>
<td>Political Science Courses</td>
<td>110</td>
</tr>
<tr>
<td>Program Planning</td>
<td>122</td>
</tr>
<tr>
<td>Project CLEAR</td>
<td>122</td>
</tr>
<tr>
<td>R</td>
<td></td>
</tr>
<tr>
<td>Radiologic Technology Courses</td>
<td>112</td>
</tr>
<tr>
<td>Radiologic Technology Program</td>
<td>47</td>
</tr>
<tr>
<td>Recreational Leadership Courses</td>
<td>113</td>
</tr>
<tr>
<td>Recreational Leadership Program</td>
<td>48</td>
</tr>
<tr>
<td>Refunds</td>
<td>11</td>
</tr>
<tr>
<td>Registration</td>
<td>10</td>
</tr>
<tr>
<td>Residency</td>
<td>10</td>
</tr>
<tr>
<td>Resident Aliens</td>
<td>10</td>
</tr>
<tr>
<td>Respiratory Therapy Courses</td>
<td>113</td>
</tr>
<tr>
<td>Respiratory Therapy Program</td>
<td>48</td>
</tr>
</tbody>
</table>
S
Scholarships/Financial Aid .......................... 14
Secretarial Careers Courses ......................... 114
Secretarial Careers Program ......................... 49
Senior Citizens ...................................... 128
Small Animal Health Courses ....................... 116
Small Animal Health Program ....................... 51
Small Engine Courses ................................. 117
Social Sciences Courses ...................... 116
Sociology Courses .................................. 117
Speakers Bureau .................................... 129
Special Events ..................................... 129
Speech .................................................. 118
Sports Clinics, Youth ................................. 129
Staff Listing ......................................... 131
Student Activities .................................. 123
Student Code of Conduct ......................... 124
Student Grievance Policy ......................... 124
Student Senate ..................................... 123
Summer Session .................................... 10

T
Table of Contents ...................................... 7
Testing/Assessment Center ......................... 122
Television Courses .................................. 129
Textbooks ........................................... 10
Theater Courses ..................................... 118
Tours ................................................... 129
Transcripts .......................................... 10
Transfer Programs .................................. 24
Travel for Credit ...................................... 18
Tuition and Fees ..................................... 11
Theater, Community .................................. 130

V
Veteran Information .................................. 15

W
Weekend College ...................................... 10