**New Courses**

**Fall 1980**

**MANAGEMENT ATTITUDES AND MOTIVATION**
**BUS 4029**
Study of techniques for self-improvement and conflict resolution through class discussion, group projects and role playing. Participants will examine their communication, management and problem-solving skills. Course meets three hours a week. Three credit hours.

**MACHINE TRANSCRIPTION**
**BSC 5189**
Prerequisites: BSC 2376 or by permission. Extensive use of dictation equipment learning transcription skills needed for efficient transcribing of business correspondence and technical reports. Language skills will be developed through correct word division, punctuation and number transcription exercises. Special topics such as news releases, agenda and minutes, medical and legal terminology will be studied. Course/lab meets five hours a week. Three credit hours.

**PASCAL**
**BDP 4023**
Prerequisites: BDP 4700 or 1698 or 6703. Use of PASCAL programming language in solving typical problems. Emphasis on function and use of statements in writing structured code. Computer used in compiling and executing the program. Course meets three hours a week. Laboratory by arrangement. Three credit hours.

**HISTORY OF PHOTOGRAPHY**
**HPH 4009**
A survey of the history of photography from the 1830s to the present. The technology and aesthetics of photography will be covered and related in an interdisciplinary manner, to the broader histories of art, culture and ideas. Course meets three hours a week. Three credit hours.

**ELECTRONIC CALCULATORS**
**BSC 5190**
Emphasis on fundamental operations of arithmetic and application to business problems on electronic display machines. Course meets one hour a week. One credit hour.

**PRINCIPLES OF ASTRONOMY**
**NPS 3031**
A basic introduction to the evolving science of astronomy. This course uses the unique capabilities of television to introduce you to the origin, characteristics and evolution of the solar system, the stars, the galaxies, and the universe. No laboratory, no observing. Three credit hours.

**AUTOMATIC TYPEWRITERS**
**BSC 5188**
Prerequisite: BSC 2376. Gives student the opportunity to develop a high degree of proficiency in the operation of IBM Mag Card II typewriter with magnetic storage cards and the IBM Memory Typewriter. Course/lab meets four hours a week. Two credit hours.

**DEVELOPMENTAL READING FOR THE HEARING IMPAIRED**
**LC 5270**
Small group sessions to help develop reading skills for the hearing impaired student. Instruction will emphasize reading comprehension and vocabulary development through the use of selected readings, current affairs readings, discussion and vocabulary building. Course meets three hours a week. Two credit hours.

**RHYTHMIC AEROBICS**
**PD 1380**
Exercise program of choreographed routines combining motor skills, jogging and dance steps. These exercise routines improve muscle tone and cardiovascular fitness. Course/lab meets one hour a week. One credit hour.

For complete descriptions of all courses offered by Johnson County Community College, see the College Catalog, available in the Admissions Office, GEB 144.
CATALOG
1980-81

Johnson County Community College
College Boulevard at Quivira Road
Overland Park, Kansas 66210
(913) 888-8500
JCCC Campus Map

**GEB** General Education Building: Administrative offices; general classrooms; lecture hall/little theater; data processing; faculty offices; seminar rooms; business management labs; admissions and records; business and personnel offices.

**EMC** Educational Media Center: Library, production area for graphics, television, photography and printed matter; faculty, counseling and veterans offices; general classrooms; art studio; electronics lab; hearing impaired program; learning center and testing center.

**SCI** Science and Technology Building: General classrooms; labs for life science, chemistry, physics and nursing; dental hygiene clinic; faculty offices; music and law enforcement areas; animal room; greenhouse; lecture halls.

**CSB** Campus Services Building: Security office; telephone communication center; maintenance office and shops; vehicle repair area; central warehouse; art instructional area; air conditioning and electrical equipment room.

**GYM** Gymnasium: Three basketball cross-courts which can be converted to an arena or auditorium; physical education facilities including weight room and wrestling room; general classrooms; faculty offices; minor first aid center for the campus; outdoor activities, playing fields and courts located adjacent to Gymnasium.

**COM** Commons: Bookstore; food service; recreational facilities; lounges and meeting rooms; faculty offices; hospitality management program.
SUMMER-MAY MINI SESSION 1980
May 15-16 Registration and payment of fees for first two-week summer mini session.
19 Two-week mini session classes begin.
26 Memorial Day. Classes not in session.
31 First-two week summer mini session ends.

SUMMER SESSION 1980
REGULAR AND MINI SESSIONS
June 2 Community Education classes begin.
4-6 Registration and payment of fees for eight-week summer session and first four-week mini session.
9 Summer session and first four-week mini session classes begin.
July 2-3 Registration and payment of fees for second four-week mini session.
3 First four-week mini session ends.
7 Second four-week mini session classes begin.
Aug. 1 Eight-week summer session and second mini session are concluded.

FALL SEMESTER 1980
18 Registration for all students begins. Teaching staff returns.
25 Fall semester begins. First day of credit classes.
Sept. 1 Labor Day. Classes not in session. College offices closed.
2 Community Education classes begin.
Oct. 30-31 Staff Development Days. College offices open. Credit classes not in session except for credit classes that meet once a week.
Nov. 27-29 Thanksgiving holiday. Credit classes not in session. College offices closed.
Dec. 19 Last day of fall semester classes.
Dec. 24-Jan. 2 Christmas and New Year's holidays.

SPRING SEMESTER 1981
Jan. 12 Registration for all students begins. Teaching staff returns.
19 Spring semester begins. First day of credit classes.
Feb. 2 Community Education classes begin.
March 15-21 Spring recess. Credit classes not in session. College offices closed.
May 15 Last day of spring semester classes. Commencement.
25 Memorial Day. Classes not in session. College offices closed.

SUMMER SESSION 1981
REGULAR AND MINI SESSIONS
June 1 Community Education classes begin.
3-5 Registration and payment of fees for eight-week summer session and first four-week mini session.
8 Summer session and first four-week mini session classes begin.
July 1-2 Registration and payment of fees for second four-week mini session.
2 First four-week mini session ends.
3 Independence Day holiday. Classes not in session. College offices closed.
6 Second four-week mini session classes begin.
31 Eight-week summer session and second four-week mini session end.
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, Assistant to the President, Johnson County Community College, College Boulevard at Quivira Road, Overland Park, Kansas 66210, (913) 888-8500, or Director, Office of Civil Rights, HEW, Washington, DC 20201.

This catalog becomes effective July 1, 1980.

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.

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Admissions

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ADMISSIONS

Can anyone go to Johnson County Community College?
Anyone may apply for admission to JCCC — regardless of age or educational background. The only exception is high school students who must have written approval from their high school principals. Non-residents of Johnson County will be accepted on a space-available basis.

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 two 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 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—$52.50 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, 1981. If you plan to submit your scores, take the ACT test as early as possible and request that your scores be sent to JCCC.

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

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 a program 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 counselor approves your program plan, you are ready to register. The exact time and day you must register will be listed 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 .................$15 per semester credit hour
Commons fee ..........$1.50 per semester credit hour
Student Activity fee ....$1 per semester credit hour
TOTAL PER CREDIT HOUR .........$17.50

Out-of-state and foreign students:
Tuition .................$50 per semester credit hour
Commons fee ..........$1.50 per semester credit hour
Student Activity fee ....$1 per semester credit hour
TOTAL PER CREDIT HOUR .........$52.50

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, GEB 110.

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.

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. Here are the percentages of refunds you may receive:
Sixteen-Week Semester

<table>
<thead>
<tr>
<th>Time of Official Withdrawal</th>
<th>Refund</th>
</tr>
</thead>
<tbody>
<tr>
<td>Through the first week of classes</td>
<td>100%</td>
</tr>
<tr>
<td>During second week of classes</td>
<td>90%</td>
</tr>
<tr>
<td>During third week of classes</td>
<td>60%</td>
</tr>
<tr>
<td>During fourth week of classes</td>
<td>30%</td>
</tr>
<tr>
<td>After start of fifth week of classes</td>
<td>0%</td>
</tr>
</tbody>
</table>

Four-Week Mini Session, Academies, Short Courses

<table>
<thead>
<tr>
<th>Time of Official Withdrawal</th>
<th>Refund</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drop form filed before second class meeting</td>
<td>100%</td>
</tr>
<tr>
<td>Drop form filed before third class meeting</td>
<td>60%</td>
</tr>
</tbody>
</table>

There are two exceptions. You may file a written appeal for partial refund if you have been seriously ill and a physician can certify your illness. You also may file if you can document that you have been through a personal hardship. Any appeals you make after the start of the ninth week of classes will not be considered. For details about refund appeals, see the dean of Student Services.

How much will my textbooks cost?
Your textbooks probably will cost from $40 to $60 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.

SPECIAL STUDENTS AT JCCC

Foreign Students
JCCC welcomes 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. JCCC is required under federal law to enroll non-immigrant alien students.

High School Seniors
If you are a high school senior, you may be eligible to earn college credit now through JCCC's QUICK STEP program. You must have completed at least 15 units to be eligible. If you are interested in JCCC's QUICK STEP program, contact your high school counselor or JCCC's director of Admissions/Records.

Handicapped Students
Handicapped students at JCCC have access to a variety of support services. Special services include notetakers for hearing and visually handicapped students. The buildings are equipped with ramps, elevators and restrooms designed to accommodate wheelchairs. Parking areas convenient to the buildings are reserved for handicapped students. If you would like more information about the services, activities and facilities available to handicapped students, contact the director of Student Development and Special Services.

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 Veterans Affairs Office.

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

If you enroll in 12 or more semester hours, you will be considered full time.
9-11 semester hours, 3/4 time.
6-8 semester hours, 1/2 time.
1-5 semester hours, less than 1/2 time.

Before you register, your courses and program must be approved by the JCCC Veterans Affairs Office. Remember, you must attend all your classes regularly and sign in monthly at the Veterans Office in order to receive educational 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 and on your educational costs at JCCC.

JCCC assesses you financial need through a fair, objective form called the Family Financial Statement (FFS), provided by the American College Testing Program. If you are applying for financial aid based on need, you will have to submit a completed FFS and the required fee to the office designated on the form. FFS 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 provided financial information about your parents.

How do I apply for financial aid?

First, complete an application for admission to JCCC and fulfill all admission requirements. Then contact the Financial Aid Office for the appropriate application form. You must submit financial aid applications by July 1 for the fall semester and by Dec. 1 for the spring semester.

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?

• Basic Educational Opportunity Grant (BEOG): The federal government began this program in 1973 for undergraduate students. These grants range from $200 to $1,600. The actual dollar amount depends on the funding level the federal government establishes and on the number of hours in which you are enrolled. Six hours a semester is the minimum.

• Supplemental Educational Opportunity Grant (SEOG): The federal government provides funds for these grants which are awarded to students with the greatest financial need. The maximum grant under this program is $1,500. The amount of your grant will be determined by your Family Financial Statement.

• Higher Education Loan Program (HELP): The federal government authorized the Insured Loan program for students. You may be eligible if you do not show enough need to qualify for other loans or grants and if the financing of your education would be a burden on your family. These loans are available from any local participating lending agency or from the Higher Education Loan Program of Kansas.

If you qualify you may borrow up to $2,500 per academic year and $1,500 for freshmen. The total amount borrowed may not exceed $7,500 for your undergraduate studies. Application forms are available in the Financial Aid Office. You must receive verification of your enrollment from the College to be eligible. The participating lending agency decides to whom these loans are awarded.

• Board of Trustees Grants: You may be eligible for a Board of Trustees grant if you are a Johnson County resident, attend school at least half-time, and show financial need, academic excellence or special talent. These grants are $100 a semester for half-time students, $150 for three-quarter time and $200 for full time. Applications are available in the Financial Aid Office.

• JCCC Foundation Awards: A number of service, business and industrial organizations provide grants and scholarships through the JCCC Foundation. Some of these grants and scholarships are designed for students in particular career programs, but others are open to all students. The Financial Aid Office has application forms for these awards and can answer any questions you may have about requirements. These scholarships are currently available:

  - B'Nai Brit Women's Scholarship
  - American Association of University Women's Scholarship
  - The Jones Scholarship
  - The Dickinson Scholarship
  - Smith Golf Scholarship
  - Cohen Trust Scholarship
  - Cress Memorial Scholarship
  - St. Joseph High School Scholarship
• **College Work Study Program (CWSP):** You may be eligible for this grant if you are from a low-income family and show financial need. This program provides part-time jobs on campus. Openings may include secretarial, clerical, lab assistant, library assistant positions. Your eligibility is determined by your FFS.

• **National Direct Student Loan (NDSL):** JCCC is a participating member of the NDSL Program. You may apply for this loan if you are a U.S. citizen and have financial need. It provides a maximum of $2,500 for your first two years of college. Your eligibility is determined by your FFS. This loan is repaid to the College after leaving school at 3 percent interest.

**What effect will my grades have on my financial aid?**

NDSL, BEOG, SEOG, CWSP and the Guaranteed Loan Program require that you meet these academic standards to continue to receive financial aid:

1. You must complete at least six credit hours a semester.
2. You must maintain a cumulative grade point as follows:

<table>
<thead>
<tr>
<th>Upon completion of</th>
<th>Minimum GPA</th>
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<tr>
<td>6-15 credit hours</td>
<td>1.25</td>
</tr>
<tr>
<td>16-30 credit hours</td>
<td>1.65</td>
</tr>
<tr>
<td>31-45 credit hours</td>
<td>1.75</td>
</tr>
<tr>
<td>46-60 credit hours</td>
<td>2.00</td>
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If you do not meet these standards, your financial aid will be discontinued. You also will lose your financial aid if you receive all I's, W's or N's. Your financial aid will be reinstated once you meet these standards.

You may remain at JCCC if you fail to meet the standards listed above, but you will not receive financial aid.
Academic Information

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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 missed. 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 classes offered each semester is available in the Credit Class Schedule.

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. Here are six ways to do it. For complete details, including scores required, contact the Testing/Assessment Center.

• College Level Examination Program (CLEP): You may gain credit through CLEP if you have knowledge equivalent to an undergraduate college course. The General Examination compares your knowledge of general information to that of college freshmen. The Subject Examination tests you in a specific area. Anyone may take the CLEP, regardless of age or education. Apply to take the CLEP exam at the Testing/Assessment Center or at any other CLEP testing center. When you apply for the test, request that your results be sent to JCCC.

• College Entrance Examination Board (CEEB) Advanced Placement Program: 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 gain credit if you demonstrate a satisfactory level of achievement on this comprehensive exam. The exam may be written or oral or both, depending on the subject. The credit by examination does not cover all courses. Contact the Testing/Assessment Center for a list of courses covered. You will be charged a fee to take the test. Submit a written request to the Testing/Assessment Center if you are interested.

• Military Service: You may be granted credit for military service upon the recommendation of the Commission of Accreditation of Service Experiences, which is approved by the American Council on Education. You are eligible if you have been in continuous active duty for at least one year. If you are currently enrolled at JCCC, present a copy of Form DD 214 for discharged personnel or Form D 295 for active duty servicemen when you apply. You will be awarded credit for military service that is similar to course work offered at JCCC.
• 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 apply up to 45 hours of credits you earned at another college toward an Associate of Arts degree.

Grading System

JCCC uses both the regular grading system and the credit/non-credit 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

N - 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.)
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 "N" 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 changed to "R".)

KRCHE Student Exchange and Library Services

JCCC's membership in the Kansas City Regional Council (KRCHE) means that you and other students have special opportunities.

One is the Student Exchange Program through which you can enroll in courses at other Kansas City area schools at no extra charge if you are enrolled at JCCC as a full-time student. This program gives you the opportunity to take courses not offered at JCCC. For more information about the Student Exchange Program contact the dean of Student Services.

You also have access to library benefits of the 17 other institutions which belong to KRCHE — and free use of the public libraries in the seven-county metropolitan area.

A KRCHE library card, available at the JCCC library, provides you regular book-borrowing privileges at the other participating and public libraries.

The other KRCHE institutions are: Baker University, Benedictine College, Donnelly College, Graceland College, Haskell Indian Junior College, Kansas City Art Institute, Longview Community College, Maple Woods Community College, Missouri Valley College, Park College, Penn Valley Community College, Pioneer Community College, Rockhurst College, Saint Mary College, University of Missouri at Kansas City, Webster College and William Jewell College.
Credit/Non-Credit Grading System
You may wish to choose the credit/non-credit option if you want to explore courses outside your usual range of subject matter.

Your transcript will indicate courses you complete under this option, but grades you earn will not be computed in your grade point average.

Here are the grades you may earn:

- S – credit earned
- N – no credit
- W – withdrawn

You need a counselor’s approval before you choose the credit/non-credit grading system. Usually, 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.

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

Grade Point Average
A – 4 grade points per semester credit hour earned
B – 3 grade points per semester credit hour earned
C – 2 grade points per semester credit hour earned
D – 1 grade point per semester credit hour earned

The total grade points you accumulate are divided by the total semester credit hours you successfully complete, excluding the semester credit hours for which an “S,” “W,” or an “N” were assigned. The result is your accumulated grade point average.

Honors
Your name will appear on the Dean’s list if you complete a minimum of 12 credit hours and earn an overall grade point average of 3.0 or higher during any semester. You will be listed on the President’s list if you maintain an average of 3.5 or above. Honors notification will be indicated 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:”

<table>
<thead>
<tr>
<th>Upon completion of</th>
<th>GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 credit hours</td>
<td>1.25</td>
</tr>
<tr>
<td>30 credit hours</td>
<td>1.65</td>
</tr>
<tr>
<td>45 credit hours</td>
<td>1.75</td>
</tr>
</tbody>
</table>

Associate of Arts Degree
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. Credits earned through non-classroom experience are not considered resident credits.

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

Intent to Graduate
You must file written notice of intent to graduate in the Admissions/Records Office by the following dates:

- Oct. 1 for fall graduation
- Feb. 1 for spring graduation
- July 1 for summer graduation

Appeal to the director of Admissions/Records if you wish to extend these deadlines.
Commencement Exercises
Remember, you may complete your requirements for graduation during any semester. But you will not be granted a diploma until the commencement exercises held at the close of each spring semester. Your degree status will be included on your permanent record as soon as you meet the graduation requirements.

Honors
You will graduate "with honors" if you earn an overall grade point average of 3.5 or more in all courses that apply to your degree.

Certificate Program
You will be awarded a certificate of completion if you successfully complete a Board of Trustees-approved program that usually takes more than one year 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:

- Emergency Medical Technology (less than one year)
- Fire Protection and Public Safety
- Hospitality Management
- Medical Transcription (less than one year)
- Mental Health Technology
- Paralegal
- Police Dispatcher
- Recreational Leadership
- Riding Instructor Program
- Secretarial Careers
Programs of Study

Transfer
Career
JCCC'S TRANSFER PROGRAM

JCCC offers the first two years of most college baccalaureate degree programs. That is, you can begin most standard college majors at JCCC. Generally, you can attend JCCC for two years and earn an Associate of Arts degree, then transfer to a four-year institution without losing time or credit.

What if you are planning to transfer after two years, but you have not decided on an area of specialization at JCCC? You should satisfy general education requirements that are common prerequisites for earning most four-year degrees.

If you have decided on a field of study, look closely at the requirements of the four-year institution to which you plan to transfer. Some majors – such as architecture, fine arts and some engineering fields – may require a specific sequence of courses you must follow to graduate. Plan your program carefully with a JCCC counselor before you enroll in the first semester of classes to make sure you select courses that will transfer.

SAMPLES OF MAJORS

Business
Accounting
Business Administration
Finance
Management
Marketing
Real Estate
Insurance

Education
Elementary/Secondary
Physical Education
Special Education
Recreation

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

Home Economics

Humanities & Fine Arts
(Liberal Arts)
Art*
English
Foreign Language
Journalism
Law
Liberal Arts or Studies
Literature
Music*

Philosophy
Speech
Theater

Medicine and Health

Science and Math
Biology
Botany
Chemistry
Geography
Geology
Mathematics
Physics
Zoology

Social Science (Liberal Arts)
Anthropology
Economics
Geography
History
Political Science
Psychology
Social Work
Sociology

*May have a specific sequence of courses to take.
Check four-year college requirements.
**A SAMPLE FOUR-YEAR DEGREE**
(May vary with 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>Ist Two Years (First 60-64 hours which may be taken at JCCC)</td>
<td>English</td>
<td>Oral Comm.</td>
</tr>
<tr>
<td>2nd Two Years (Remaining 60-64 hours)</td>
<td>Courses taken in major field</td>
<td>Upper division courses taken not in major field</td>
</tr>
</tbody>
</table>

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 to which you plan to transfer and the major field you plan to enter. Look closely at your major field requirements when planning which courses to take.

The following course description suggestions may help. This sample program is only a guide.

---

**COMMUNICATIONS**
(3-4 courses)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 6524</td>
<td>Communications I (Eng. Comp.)</td>
<td>3</td>
</tr>
<tr>
<td>COM 1467</td>
<td>Communications II (Eng. Comp.)</td>
<td>3</td>
</tr>
<tr>
<td>CSP 4950</td>
<td>Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>CSP 4130</td>
<td>Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>COM* 2618</td>
<td>Creative Writing</td>
<td>3</td>
</tr>
<tr>
<td>COM* 4444</td>
<td>Poetry and Drama</td>
<td>3</td>
</tr>
<tr>
<td>COM* 2779</td>
<td>Studies in the Novel</td>
<td>3</td>
</tr>
<tr>
<td>COM* 5271</td>
<td>American Writers</td>
<td>3</td>
</tr>
<tr>
<td>COM* 1051</td>
<td>Masterpieces of the Cinema</td>
<td>3</td>
</tr>
<tr>
<td>COM* 1015</td>
<td>Children's Literature</td>
<td>3</td>
</tr>
<tr>
<td>COM* 6024</td>
<td>World Masterpieces</td>
<td>3</td>
</tr>
<tr>
<td>COM* 3694</td>
<td>Advanced Composition</td>
<td>3</td>
</tr>
</tbody>
</table>

Some college degrees may require foreign language. JCCC offers Spanish, French and German.

# The next 3-6 hours could be Speech or Literature depending on your major. Communications II is a prerequisite for most of the following literature and composition courses.

*Prerequisite is COM 1467 Communications II.

---

**MATHEMATICS**
(1 course)

At least one math course usually is required. If you are unsure of your skills, take a pre-test available in the Testing Center to determine proper course selection.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTH 7246</td>
<td>Introduction to Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MTH 3000</td>
<td>Geometry</td>
<td>2</td>
</tr>
<tr>
<td>MTH 9009</td>
<td>Intro. to Algebra &amp; Geometry</td>
<td>5</td>
</tr>
</tbody>
</table>

---

**MTH 3001** Intermediate Algebra 1 3
MTH 3427 College Algebra 3
MTH 2594 Trigonometry 3
MTH 6079 Algebra 5
MTH 7091 Algebra & Trigonometry 5
MTH 3668 Analytic Geometry/Calculus I 5
MTH 6463 Calculus I 3
MTH 2642 Finite Math 3

1 May not transfer to some four-year colleges.
2 Prerequisite: MTH 7091 or equivalent; usually taken by students enrolled in engineering, science or business.
3 Usually taken by students enrolled in business.
4 Usually taken by elementary education majors.

---

**NATURAL SCIENCES**
(2-3 courses)

All schools require at least one lab science. Some majors require both a biological and physical science.

**Biological Sciences**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>NLS 6540</td>
<td>Life Sciences (AVT Lab included)</td>
<td>4</td>
</tr>
<tr>
<td>NLS 5020</td>
<td>Principles of Biology</td>
<td>3</td>
</tr>
<tr>
<td>NLS 5091</td>
<td>Principles of Biology Lab</td>
<td>1</td>
</tr>
<tr>
<td>NLS 5402</td>
<td>General Botany</td>
<td>5</td>
</tr>
<tr>
<td>NLS 4241</td>
<td>General Zoology</td>
<td>5</td>
</tr>
<tr>
<td>NLS* 5593</td>
<td>Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>NLS* 6057</td>
<td>Microbiology Lab</td>
<td>2</td>
</tr>
<tr>
<td>NLS 6186</td>
<td>Human Anatomy/Physiology</td>
<td>5</td>
</tr>
<tr>
<td>NLS 1128</td>
<td>Human Anatomy</td>
<td>4</td>
</tr>
<tr>
<td>NLS* 1144</td>
<td>Human Physiology</td>
<td>4</td>
</tr>
<tr>
<td>NLS 6719</td>
<td>Environmental Science</td>
<td>3</td>
</tr>
<tr>
<td>NLS 4720</td>
<td>Environmental Science Lab</td>
<td>1</td>
</tr>
<tr>
<td>NLS 4248</td>
<td>General Genetics (no lab)</td>
<td>3</td>
</tr>
</tbody>
</table>

**Physical Science**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPS 1031</td>
<td>Physical Science</td>
<td>4</td>
</tr>
<tr>
<td>NPS 6070</td>
<td>Astronomy</td>
<td>4</td>
</tr>
<tr>
<td>NPS 4858</td>
<td>General Geology</td>
<td>5</td>
</tr>
<tr>
<td>NPS 6634</td>
<td>Principles of Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>NPS* 4515</td>
<td>General Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>NPS* 4516</td>
<td>General Chemistry I Lab</td>
<td>1</td>
</tr>
<tr>
<td>NPS* 4455</td>
<td>General Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>NPS* 4456</td>
<td>General Chemistry II Lab</td>
<td>1</td>
</tr>
<tr>
<td>NPS* 3308</td>
<td>General Physics I</td>
<td>4</td>
</tr>
<tr>
<td>NPS* 5212</td>
<td>Engineering Physics I</td>
<td>4</td>
</tr>
</tbody>
</table>

*Check catalog for prerequisite.
HUMANITIES
(2-3 courses)
HUM 6120 Introduction to Humanities .......... 3
HUM 5431 Comparative Cultures .......... 3
HAR 1713 Introduction to Art History .......... 3
HAR 3878 Modern Art History .......... 3
HMU 8927 Intro. to Music Listening .......... 3
HUM 7520 Introduction to Philosophy .......... 3
HUM 6392 Logic .......... 3
HUM 3080 Ethics .......... 3
HUM 2532 Philosophy of Current Civilization .......... 3
HUM 2541 Philosophy of Religion .......... 3
HUM 5966 History of Ancient Philosophy .......... 3
CDR 1809 Introduction to Theater .......... 3

SOCIAL SCIENCES
(2-3 courses)
SS 3404 Sociology .......... 3
SS 3428 Social Problems .......... 3
SS 3721 Physical Anthropology .......... 3
SS 1029 Cultural Anthropology .......... 3
SS 1068 Introduction to Psychology .......... 3
SS* 3546 Child Development .......... 3
SS* 4639 Personality and Adjustment .......... 3
SS 5716 Marriage and the Family .......... 3
SS* 5663 Social Psychology .......... 3
SS 1456 Political Science .......... 3
SS 3138 American National Government .......... 3
SS 2678 State & Local Government .......... 3
SS* 5852 Intro. to Comparative Governments .......... 3
SS 2808 International Relations .......... 3
SS** 1055 U.S. History to 1877 .......... 3
SS** 2000 U.S. History from 1877 .......... 3
SS** 9922 European History – 1750 .......... 3
SS 2004 Introduction to Economic Issues .......... 3
SS 2233 Economics I .......... 3
SS* 3093 Economics II .......... 3
*Check catalog for prerequisite.
**History courses will transfer as humanities credits to some schools.

GENERAL ELECTIVES
Elective courses that will transfer could be selected from Business and Economics, Physical Development, Art and Music.

SAMPLE PROGRAM
The following is an example of a first-year program plan for a liberal arts transfer student. This is only an example and your own program could look different. If you are interested in architecture, fine arts, engineering, science or medicine, talk with a counselor.

First Semester Credit Hours
Communications I ............... 3
Social Science elective ............... 3
Math/Natural Science elective ............... 3-5
Humanities elective ............... 3
*General elective ............... 3
Total Hours .................. 15-17

Second Semester
Communications II ............... 3
Speech elective ............... 3
Math/Natural Science elective ............... 3-5
Social Science/Humanities elective ............... 3
*General elective ............... 3
Total Hours .................. 15-17

*A general elective could be a course in your own field of interest. Check with a counselor to see if it will transfer to a four-year school.
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 30 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
- Biomedical Equipment Technology
- Business Management
- Commercial Art
- Data Processing
- Dental Assisting
- Dental Hygiene
- Drafting Technology
- Electronics Engineering Technology
- Emergency Medical Technician
- Equine Studies
- Fashion Merchandising
- Fire Protection & Public Safety
- Hospitality Management
- Culinary Career
- Interpreter Training
- Life and Home Management
- Marketing and Management
- Medical Laboratory Technician
- Medical Record Technology
- Mental Health Technology
- Nursing (RN)
- Paralegal
- Physical Therapy Assistant
- Radiologic Technology
- Recreational Leadership
- Respiratory Therapy
- Secretarial Careers
- Small Animal Health
- Urban Agribusiness

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 requirement, 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 CAREERS

This dual-purpose accounting curriculum is designed to prepare you to enter the job market at a para-professional level after two years of post-high school study. The program also provides initial preparation for a bachelor's degree. If you are enrolled in a transfer program, you do not need to take the Field Study courses.

**Required Accounting and Business Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAC 4092</td>
<td>Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>BUS 1121</td>
<td>Business Law I</td>
<td>3</td>
</tr>
<tr>
<td>BAC 6524</td>
<td>Communications I</td>
<td>3</td>
</tr>
<tr>
<td>BAC 5096</td>
<td>Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>RDP 7135</td>
<td>Bus. Data Processing or</td>
<td>3-4</td>
</tr>
<tr>
<td>RDP 6699</td>
<td>Program Fund</td>
<td>3</td>
</tr>
<tr>
<td>BAC 2036</td>
<td>FS Human Relations</td>
<td>3</td>
</tr>
<tr>
<td>BUS 3093</td>
<td>Economics II</td>
<td>3</td>
</tr>
<tr>
<td>BAC 3111</td>
<td>FS Business Math</td>
<td>3</td>
</tr>
<tr>
<td>BAC</td>
<td>Accounting Elective (see below)</td>
<td>3</td>
</tr>
<tr>
<td>BAC 5099</td>
<td>FS Accounting Seminar</td>
<td>3</td>
</tr>
<tr>
<td>BUS 1007</td>
<td>Business Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

**Recommended Electives**

- **Accounting Elective (choose one)**
  - BAC 6299 Intermediate Accounting I
  - BAC 2436 Cost Accounting
  - BAC 4218 Account. for Nonprofit Organizations

- **Required General Courses**
  - Social Science 3
  - Math 3
  - Humanities 3

- **Recommended Electives**
  - BUS 4282 Introduction to Business 3
  - BUS 5134 Business Law II 3
  - BAC 4063 Managerial Accounting 3
  - BAC 2436 Cost Accounting 3
  - BAC 4218 Acct. for Nonprofit Org. 3
  - **BUS 2253 Economics I** 3
  - **BAC 6299 Intermediate Accounting I** 3
  - **BAC 6294 Intermediate Accounting II** 3
  - **BAC 6038 Savings and Investment** 3
  - **BUS 2259 Personal Finance** 3
  - **BUS 2341 Personnel Management** 3
  - **BUS 7007 Marketing** 3
  - **BUS 2360 Federal Income Tax** 3

**ADMINISTRATION OF JUSTICE/ LAW ENFORCEMENT**

The Administration of Justice Program is designed to accommodate a variety of student career goals. Through individual selection of program electives, you may prepare for a career in law enforcement, probation, security, investigation and corrections. You should develop your program plan with the program coordinator.

**Associate of Arts Degree**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Education Requirements</td>
<td>18</td>
</tr>
<tr>
<td>Required Program Core Courses</td>
<td>24</td>
</tr>
<tr>
<td>Required Program Electives</td>
<td>12</td>
</tr>
<tr>
<td>Free Electives</td>
<td>6</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td><strong>60</strong></td>
</tr>
</tbody>
</table>

**General Education Requirements**

- COM 6524 Communications I 3
- COM 1467 Communications II 3
- SS 3404 Sociology 3
- SS 2678 State and Local Government 3
- SS 1068 Introduction to Psychology 3
- BSC 1263 Beginning Typing* 3

**TOTAL HOURS** 18

*If you can demonstrate proficiency of 35 w.p.m. corrected, you may substitute another course.

**Required Program Core Courses**

- SLE 2080 Intro to Admin. of Justice** 3
- SLE 7108 Study of Criminal Justice System 3
- SLE 1585 Criminology 3
- SLE 4263 Crime Prevention 3
- SLE 6432 Police and the Public 3
- SLE 4588 Criminal Law** 3
- SLE 4418 Constitutional Case Law** 3
- SLE 5137 Fundamentals of Crim. Invest. 3

**TOTAL HOURS** 24

**If you are certified under Kansas Law 7456.02, you are eligible to receive Experience-Based Education credit for these courses.**

**Required 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.

- SLE 1160 Juvenile Code and Procedures 3
- SLE 7288 Defensive Tactics for Police** 3
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLE 2461</td>
<td>Motor Vehicle Law</td>
<td>3</td>
</tr>
<tr>
<td>SLE 6653</td>
<td>Traffic Safety/Accident Invest.</td>
<td>3</td>
</tr>
<tr>
<td>SLE 4033</td>
<td>Patrol Procedures</td>
<td>3</td>
</tr>
<tr>
<td>SLE 7292</td>
<td>Intro to Criminalistics</td>
<td>3</td>
</tr>
<tr>
<td>SLE 7161</td>
<td>Supervisory Techniques</td>
<td>3</td>
</tr>
<tr>
<td>SLE 7454</td>
<td>Police Organisation &amp; Management</td>
<td>3</td>
</tr>
<tr>
<td>SLE 1174</td>
<td>Readings in Police Science</td>
<td>3</td>
</tr>
<tr>
<td>SLE 5006</td>
<td>Fundamentals of Private Security</td>
<td>3</td>
</tr>
</tbody>
</table>

**Correctional Services Offered at Longview College**

Through a cooperative agreement with Longview Community College, you may take all or some of their 12 program elective credits in Correctional Services. The following courses are taught at Longview. You can register for them at JCCC, pay resident fees and have them listed on your JCCC transcript.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJU 160</td>
<td>Principles of Corrections</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 126</td>
<td>Corrections in the Community</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 162</td>
<td>Correctional Psychology</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 236</td>
<td>Correctional Administration</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 201</td>
<td>Internship in Corrections I</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 202</td>
<td>Internship in Corrections II</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 165</td>
<td>Theory of Child Care Work in Residential Treatment</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 166</td>
<td>Methods of Interacting with Emotionally Sensitive Child</td>
<td>3</td>
</tr>
</tbody>
</table>

**Emergency Services Dispatcher Certification**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLE 7108</td>
<td>Study of Crim. Justice System</td>
<td>3</td>
</tr>
<tr>
<td>SLE 6432</td>
<td>Police and the Public</td>
<td>3</td>
</tr>
<tr>
<td>SLE 4033</td>
<td>Patrol Procedures</td>
<td>3</td>
</tr>
<tr>
<td>BSC 1263</td>
<td>Beginning Typing</td>
<td>3</td>
</tr>
<tr>
<td>BSC 2376</td>
<td>Intermediate Typing</td>
<td>3</td>
</tr>
<tr>
<td>BSC 1342</td>
<td>Records Management</td>
<td>3</td>
</tr>
<tr>
<td>COM 6524</td>
<td>Communications I</td>
<td>3</td>
</tr>
<tr>
<td>COM 1467</td>
<td>Communications II</td>
<td>3</td>
</tr>
<tr>
<td>SS 1068</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SLE 5063</td>
<td>Field Study</td>
<td>3</td>
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</tbody>
</table>

**TOTAL HOURS** 30

**BIOMEDICAL EQUIPMENT TECHNOLOGY**

A biomedical equipment technician may work for a hospital, medical equipment manufacturer, medical equipment service firm or as a field service technician selling, maintaining and installing specialized electronic systems used in the health field. A biomedical equipment technician's work may include electrical safety checks; troubleshooting and repairing medical equipment; preventive maintenance procedures; and in-service training of medical personnel. JCCC's program is centered on courses devoted to the fundamentals of electronics, natural sciences and related mathematics. Internship in an area hospital or medical equipment service is required.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>SLE 2461</td>
<td>Motor Vehicle Law</td>
<td>3</td>
</tr>
<tr>
<td>SLE 6653</td>
<td>Traffic Safety/Accident Invest.</td>
<td>3</td>
</tr>
<tr>
<td>SLE 4033</td>
<td>Patrol Procedures</td>
<td>3</td>
</tr>
<tr>
<td>SLE 7292</td>
<td>Intro to Criminalistics</td>
<td>3</td>
</tr>
<tr>
<td>SLE 7161</td>
<td>Supervisory Techniques</td>
<td>3</td>
</tr>
<tr>
<td>SLE 7454</td>
<td>Police Organisation &amp; Management</td>
<td>3</td>
</tr>
<tr>
<td>SLE 1174</td>
<td>Readings in Police Science</td>
<td>3</td>
</tr>
<tr>
<td>SLE 5006</td>
<td>Fundamentals of Private Security</td>
<td>3</td>
</tr>
</tbody>
</table>

**Suggested Sequence of Courses**

**First Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTH 9000</td>
<td>Math for Electronics I</td>
<td>5</td>
</tr>
<tr>
<td>EET 2322</td>
<td>Resistive Circuits</td>
<td>3</td>
</tr>
<tr>
<td>EET 5290</td>
<td>Introductory Electronics</td>
<td>3</td>
</tr>
<tr>
<td>COM 6524</td>
<td>Communications I</td>
<td>3</td>
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</table>

**TOTAL HOURS** 14

**Second Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MTH 9001</td>
<td>Math for Electronics II</td>
<td>5</td>
</tr>
<tr>
<td>EET 5056</td>
<td>Capacitive and Inductive Circuits</td>
<td>3</td>
</tr>
<tr>
<td>EET 4289</td>
<td>Resistive Electronics</td>
<td>3</td>
</tr>
<tr>
<td>EET 7643</td>
<td>Digital Electronics</td>
<td>3</td>
</tr>
<tr>
<td>NS 5381</td>
<td>Medical Terminology</td>
<td>2</td>
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**TOTAL HOURS** 16

**Third Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EET 7604</td>
<td>Linear Electronics</td>
<td>3</td>
</tr>
<tr>
<td>NLS 6186</td>
<td>Human Anatomy and Physiology</td>
<td>5</td>
</tr>
<tr>
<td>EMT 6824</td>
<td>Biomedical Equipment Tech. I</td>
<td>3</td>
</tr>
<tr>
<td>EMT 4504</td>
<td>Biomedical Electrical Safety</td>
<td>2</td>
</tr>
<tr>
<td>COM 1260</td>
<td>Technical Writing</td>
<td>3</td>
</tr>
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</table>

**TOTAL HOURS** 16

**Fourth Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EET 7490</td>
<td>Nonlinear Electronics</td>
<td>3</td>
</tr>
<tr>
<td>EET 4503</td>
<td>Microprocessors</td>
<td>3</td>
</tr>
<tr>
<td>EMT 9824</td>
<td>Biomedical Equipment Tech. II</td>
<td>3</td>
</tr>
<tr>
<td>NPS 6634</td>
<td>Principles of Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>EMT 4505</td>
<td>Biomedical Internship</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL HOURS** 17

**BUSINESS MANAGEMENT**

The Business Management Program is designed to help you acquire entry-level skills in the mid-management areas of any business. The program's objectives include:

* increase your awareness of your role as an employee
* increase your awareness of responsibilities of management
* increase your skill in decision-making
* increase your awareness and appreciation of the basic functions of management, i.e., planning, organizing, directing and controlling.

This program is flexible enough to meet the needs of students planning to assume positions of administrative or management responsibility in a variety of areas. Some four-year colleges will accept all the courses in this curriculum although it is not intended to be a transfer program.

**Suggested Sequence of Courses**

**First Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 6524</td>
<td>Communications I</td>
<td>3</td>
</tr>
<tr>
<td>BUS 4282</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BDP 7135</td>
<td>Business Data Processing</td>
<td>3</td>
</tr>
</tbody>
</table>
Bus 2259 Personal Finance or
Bus 6038 Savings and Investment ............. 3
Elective .................................. 3
TOTAL HOURS .................. 15

Second Semester
BAC 4092 Accounting I ..................... 3
Bus 1007 Business Communication ........ 3
Bus 7822 Principles of Management ......... 3
Mth 7246 Introduction to Algebra .......... 3
Elective .................................. 3
TOTAL HOURS .................. 15

Third Semester
BAC 5096 Accounting II ..................... 3
Bus 2341 Personnel Management .......... 3
Bus 2253 Economics I ..................... 3
Bus 1121 Business Law I ................. 3
Elective .................................. 3
TOTAL HOURS .................. 15

Fourth Semester
BAC 4063 Managerial Accounting .......... 3
Bus 5360 Principles of Supervision ....... 3
Bus 3093 Economics II ..................... 3
Bus 5134 Business Law II .................. 3
Elective .................................. 3
TOTAL HOURS .................. 15

COMMERCIAL ART
The Commercial Art Program is designed to provide the visual and technical skills, problem-solving ability and creative versatility you will need to be an effective commercial artist. High professional standards, established within the graphic arts industry, are maintained in all courses in this JCCC program. Outstanding studio facilities offer you in-depth experience with the type of equipment, tools, materials and processes which you will encounter on the job. Full-time faculty and professional advertising artists working in the Kansas City area teach the classes. A major objective of the program is for you to develop a professional portfolio for presentation to prospective employers and job placement after graduation. There are no formal requirements associated with entering the Commercial Art Program. But there is a committee review of all student work at the conclusion of each semester. Your participation in this review is a requirement for continuing in the program.

Suggested Sequence of Courses  Credits

First Semester
Har 2880 Design 2D ......................... 3
Har 7209 Design, Color ..................... 3
Har 6862 Basic Representation I .......... 3
Hph 5555 Basic Photography I ............. 3
Har 7205 Lettering ......................... 2
TOTAL HOURS .................. 15

Second Semester
Har 5863 Basic Representation II .......... 3
Hph 6666 Photography II .................. 3
Har 4679 Visual Technology I (S) ........ 4
Har 4028 Silkscreen (S) ..................... 3
Har 1861 Layout .......................... 3
TOTAL HOURS .................. 16

Third Semester
Har 6021 Design 3D ......................... 4
Har 1689 Visual Communications I (F) .... 4
Har 6688 Visual Technology II (F) ........ 4
Art Elective .............................. 3
TOTAL HOURS .................. 15

Fourth Semester
Har 9619 Visual Communications II (S) ... 4
Har 7690 Preparation of Portfolio**(S) .... 2
Har 5691 Commercial Art Field Study**(S) .. 3
Electives ................................ 6
TOTAL HOURS .................. 15

Suggested Art Electives
Har 8855 Airbrush Techniques*(R) ........ 3
Har 3564 Introduction to Printmaking* ...... 3
Har 1713 Introduction to Art History ...... 3
Har 3878 Modern Art History ............... 3
Har 7576 Drawing I ......................... 3
Har 2021 Life Drawing I* .................. 3
Har 3033 Drawing II* ....................... 3
Hph 3880 Photography III* ................ 3
Har 6662 Life Drawing II ................... 3

*These classes have prerequisites.
**These courses are corequisites and may be taken only with the permission of the coordinator of the Commercial Art Program.
(F) offered fall semester only
(S) offered spring semester only
(R) offered summer semester only
DATA PROCESSING
You can gain skills for entry-level programming positions or related occupations through this program. On-the-job experience is recommended as part of the curriculum. JCCC's data processing laboratory is open on an unscheduled basis seven days a week (over 80 hours). JCCC's data processing equipment includes a Hewlett Packard 3000 system which provides access to an IBM 370-158 as well as in-house processing. Time-sharing, batch and remote batch processing are used. Programs for some courses will be run on the College's Burroughs B1900. Auxiliary equipment includes keypunches and cathode-ray tubes. You will have the opportunity to code programs on-line using an editor as well as off-line using cards. The course emphasizes practical experience. If you already are in the field of data processing, you may enroll in courses to upgrade and broaden your knowledge.

Required Data Processing Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTH 3001 Intermediate Algebra</td>
<td>3</td>
</tr>
<tr>
<td>BAC 4092 Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>BDP 6699 Programming Fundamentals</td>
<td>4</td>
</tr>
<tr>
<td>BDP 4700 COBOL I</td>
<td>4</td>
</tr>
<tr>
<td>BDP 1702 COBOL II</td>
<td>4</td>
</tr>
<tr>
<td>BDP 1698 Assembler Language I (F)</td>
<td>4</td>
</tr>
<tr>
<td>BDP 4551 Intro Systems Design/Analysis (F)</td>
<td>3</td>
</tr>
<tr>
<td>BDP 6514 Application Programming: Data Processing Topics (S)</td>
<td>3</td>
</tr>
<tr>
<td>BDP 7300 Application Programming: Applications (F)</td>
<td>3</td>
</tr>
<tr>
<td>BDP 6451 Operating Systems (S)</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td><strong>36</strong></td>
</tr>
</tbody>
</table>

Data Processing Electives
You must take three of the eight courses listed below and at least one elective language.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BDP 6703 FORTRAN</td>
<td>4</td>
</tr>
<tr>
<td>BDP 4701 PL/I</td>
<td>4</td>
</tr>
<tr>
<td>BDP 1684 Assembler Language II</td>
<td>4</td>
</tr>
<tr>
<td>BDP 7683 RPG/II Beginning (S)</td>
<td>4</td>
</tr>
</tbody>
</table>

Suggested Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 6524 Communications I</td>
<td>3</td>
</tr>
<tr>
<td>COM 1467 Communications II</td>
<td>3</td>
</tr>
<tr>
<td>CSP 4950 Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>BAC 5096 Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>HUM 6392 Logic</td>
<td>3</td>
</tr>
<tr>
<td>SS 1068 Psychology</td>
<td>3</td>
</tr>
<tr>
<td>BUS 2253 Economics</td>
<td>3</td>
</tr>
<tr>
<td>MTH Math/Additional</td>
<td></td>
</tr>
<tr>
<td>BDP 4023 Pascal</td>
<td>4</td>
</tr>
<tr>
<td>BDP 4049 Fundamentals of BASIC</td>
<td>3</td>
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</tbody>
</table>

(F) offered fall semester only
(S) offered spring semester only

DENTAL ASSISTING
Your successful completion of this cooperative program with Penn Valley Community College enables you to meet requirements for an Associate of Arts degree and to sit for the Certified Dental Assistant examination. You must be accepted into the program at Penn Valley prior to enrolling at JCCC and should plan your program with a counselor. You should take the following courses concurrently at JCCC and Penn Valley. All courses with NDA prefix are taught at Penn Valley Community College.

Required Courses at JCCC

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSP 4950 Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>NPS 6634 Principles of Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>COM 6524 Communications I</td>
<td>3</td>
</tr>
<tr>
<td>SS 1068 Psychology</td>
<td>3</td>
</tr>
<tr>
<td>NLS 6816 Human Anatomy/Physiology</td>
<td>5</td>
</tr>
<tr>
<td>SS 3404 Sociology</td>
<td>3</td>
</tr>
<tr>
<td>NLS 5593 Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>NLS 6057 Microbiology Lab</td>
<td>2</td>
</tr>
<tr>
<td>BAC 2171 Small Business Accounting</td>
<td>3</td>
</tr>
<tr>
<td>NLS 6152 General Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>NS 5381 Medical Terminology I</td>
<td>2</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td><strong>37</strong></td>
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</table>

Required Courses at PVCC

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>NDA 2041 Fundamentals of Dent. I</td>
<td>5</td>
</tr>
<tr>
<td>NDA 1044 Fundamentals of Dent. II</td>
<td>4</td>
</tr>
<tr>
<td>NDA 1052 Pre-clinical Practice</td>
<td>4</td>
</tr>
<tr>
<td>NDA 2855 Fundamentals of Dent. III</td>
<td>4</td>
</tr>
<tr>
<td>NDA 1047 Clinical Practice I</td>
<td>3</td>
</tr>
<tr>
<td>NDA 5048 Fundamentals of Dent. IV</td>
<td>3</td>
</tr>
<tr>
<td>NDA 6050 Clinical Practice II</td>
<td>5</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td><strong>28</strong></td>
</tr>
</tbody>
</table>
DENTAL HYGIENE

The dental hygienist, as a member of a modern dental health team, is qualified by education and licensure to provide direct service for maintenance of oral health and prevention of disease. The Dental Hygiene Program is fully accredited by the American Dental Association's Commission for Accreditation of Dental and Dental Auxiliary Education. The program consists of two full academic years and one summer session. The dental hygiene clinic on campus is used to develop your efficiency in clinical techniques under the supervision of a licensed dentist and registered dental hygienists. In addition, learning experiences are arranged so you can help raise the dental health standards throughout the community. The application packet for the Dental Hygiene Program, available in the Admissions/Records Office, includes information about deadlines, admission, and options for meeting academic criteria.

Suggested Sequence of Courses

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>NDH 7252</td>
<td>Clinical Dental Hygiene I</td>
</tr>
<tr>
<td>NDH 2339</td>
<td>Head and Neck Anatomy</td>
</tr>
<tr>
<td>NDH 7253</td>
<td>Developmental Dentistry</td>
</tr>
<tr>
<td>NPS 6634</td>
<td>Principles of Chemistry</td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td>17</td>
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<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NDH 7254</td>
<td>Clinical Dental Hygiene II</td>
</tr>
<tr>
<td>NDH 6266</td>
<td>Dental Radiology</td>
</tr>
<tr>
<td>NLS 6152</td>
<td>Nutrition</td>
</tr>
<tr>
<td>NLS 1144</td>
<td>Human Physiology</td>
</tr>
<tr>
<td>NDH 7255</td>
<td>Periodontics</td>
</tr>
<tr>
<td>NDH 7256</td>
<td>Dental Health Education</td>
</tr>
<tr>
<td>SS 1068</td>
<td>Psychology</td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td>19</td>
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<table>
<thead>
<tr>
<th>Third Semester (Summer)</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NLS 5593</td>
<td>Microbiology</td>
</tr>
<tr>
<td>COM 6254</td>
<td>Communications I</td>
</tr>
<tr>
<td>SS 3404</td>
<td>Sociology</td>
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<tr>
<td>TOTAL HOURS</td>
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<table>
<thead>
<tr>
<th>Fourth Semester</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>NDH 7257</td>
<td>Clinical Dental Hygiene III</td>
</tr>
<tr>
<td>NDH 7258</td>
<td>Pathology and Periodontics</td>
</tr>
<tr>
<td>NDH 7259</td>
<td>Dental Therapeutics</td>
</tr>
<tr>
<td>NDH 5250</td>
<td>Dental Materials</td>
</tr>
<tr>
<td>NDH 7260</td>
<td>Community Dental Health</td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td>17</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Fifth Semester</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NDH 7261</td>
<td>Clinical Dental Hygiene IV</td>
</tr>
<tr>
<td>CSP 4950</td>
<td>Interpersonal Communications</td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td>10</td>
</tr>
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</table>

DRAFTING TECHNOLOGY

The drafting technology curriculum provides a comprehensive program based on standards for drafting technicians which industries in the Kansas City area have established. Drafting technicians work in areas such as machine production; electronics; structural, architectural and technical illustration; and cartography. Duties may include detailed production drawings, assemblies, schematics, specifications, pictorials, reproductions, photographs, estimating, inspection and design. Projects and laboratory procedures in this program will be similar to those used in industry. The laboratory is equipped with up-to-date drafting, photo-mechanical and reproduction equipment. If you take the courses below in the sequence indicated, you should be able to develop a portfolio reflecting your skills in design, photodrafting, technical illustration and reproduction techniques.

Suggested Sequence of Courses

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDT 5810</td>
<td>Technical Drafting I</td>
</tr>
<tr>
<td>EDT 1813</td>
<td>Reprographics I</td>
</tr>
<tr>
<td>MTH 2942</td>
<td>Industrial Math I</td>
</tr>
<tr>
<td>COM 6524</td>
<td>Communications I (or Elective)</td>
</tr>
<tr>
<td>TOTAL HOURS</td>
<td>15</td>
</tr>
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<table>
<thead>
<tr>
<th>Second Semester</th>
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<tbody>
<tr>
<td>EDT 2811</td>
<td>Technical Drafting II</td>
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<td>EDT 7812</td>
<td>Pictorial Drafting</td>
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<tr>
<td>MTH 2943</td>
<td>Industrial Math II</td>
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<td>Selected Drafting Class or Elective</td>
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<tr>
<th>Third Semester</th>
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<tbody>
<tr>
<td>Selected Drafting Classes</td>
<td>5-8</td>
</tr>
<tr>
<td>EGR 5269</td>
<td>Industrial Science I</td>
</tr>
<tr>
<td>EGR 4661</td>
<td>Processes &amp; Materials of Manufact.</td>
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</table>
Elective .................................................. 3
TOTAL HOURS ....................................... 14-17

Fourth Semester
Selected Drafting Classes .................................................. 6-8
EGR 3315 Industrial Science II ............................................ 3
EGR 7118 Building Materials & Construction .......... 3
Elective .................................................................... 2-3
TOTAL HOURS ............................................. 14-17

Selected Drafting Courses
EDT 4011 Interpreting Architectural Drawings .............. 2
EDT 4013 Electronics Drafting ........................................ 2
EDT 2915 Architectural Drafting* .................................... 3
EDT 4014 Process Piping* ............................................ 3
EDT 2297 Technical Illustration ...................................... 3
EDT 4012 Interpreting Machine Drawings ................. 2
EDT 4010 Reprographics II* ........................................ 2
EDT 1916 Structural Drafting* ....................................... 3
EDT 5924 Electrical Drafting* ....................................... 3
EDT 4015 Cartography and Land Surveying* ............. 3
EDT 1229 Building Construction Estimating ............. 3
EDT 6016 Interpretation of Welding Drawings .......... 2
*Courses have prerequisites.

Suggested Electives
EDT 7674 Graphic Communication ................................ 1-7
EGR 1243 Engineering Graphics I ................................ 3
BUS 2253 Economics I ............................................. 3
CSP 4950 Interpersonal Communication ..................... 3
HPH 5355 Photography I ............................................ 3
BUS 2259 Personal Finance ......................................... 3
BUS 2341 Personnel Management ............................... 3
MTH Math (Additional)
NPS 1031 Physical Science (Additional) .................... 3
COM 1260 Technical Writing ...................................... 3

study in electronic engineering technology and earn a
B.S. in engineering technology.

Suggested Sequence of Courses Credits
First Semester
EET 5290 Introductory Electronics ................................ 3
EET 2322 Resistive Circuits ........................................ 3
MTH 9000 Math for Electronics I ................................ 5
COM 6524 Communications I ...................................... 3
TOTAL HOURS ............................................. 14

Second Semester
EET 5056 Capacitive & Inductive Circuits .................. 3
EET 4289 Resistive Electronics .................................... 3
EET 7643 Digital Electronics ....................................... 3
MTH 9001 Math for Electronics II ............................. 5
TOTAL HOURS ............................................. 14

Third Semester
EET 7604 Linear Electronics ...................................... 3
EET 4065 Basic Computer Components ...................... 3
EGR 7724 Programming for Eng. & Science .......... 4
EGR 5269 Industrial Science I .................................... 3
COM 1260 Technical Writing ...................................... 3
TOTAL HOURS ............................................. 16

Fourth Semester
EET 7490 Nonlinear Electronics ................................. 3
EET 2468 Electronic Comm. Systems ......................... 3
EET 4503 Microprocessors ......................................... 3
EGR 3315 Industrial Science II .................................. 3
Nontechnical Elective ............................................. 4
TOTAL HOURS ............................................. 16

EMERGENCY MEDICAL TECHNICIAN

This short-term certificate program requires approximately 120 class hours to complete. If you successfully complete the program, you will meet the educational prerequisite for taking the State Registry Examination for Emergency Medical Technicians. An additional fee for taking the registry examination is required at the time of testing. Classroom instruction will include basic anatomy and physiology, pathophysiology, emergency recognition and care of acute medical emergencies and trauma-related injuries. The program also teaches skills in performing CPR, bandaging, splinting, childbirth techniques and other emergency care procedures. In addition, you will spend 10 hours of in-hospital observation in such areas as the recovery room, intensive care unit and the emergency, obstetric and psychiatric departments. A simulated automobile accident will help you gain first-hand experience in auto extrication—the safe removal of accident victims from their vehicles.

Any Semester Credits
NET 6441 Emergency Medical Technician .................. 5
EQUINE STUDIES
The Equine Studies Program is designed to prepare you to earn a living while working with horses. Part of the instruction also is designed to help you improve your skills in riding, training, judging or caring for horses. The Riding Instructor Certificate Program requires 30 credit hours of specialized course work in equine skills. You may apply these hours to giving lessons in horsemanship, managing a small business, learning basic riding techniques and sharpening your competitive skills for entering horse shows. The Associate of Arts Degree Program is designed to prepare you for a career as a stable owner or manager, breeder, trainer or a manager of other programs and facilities in today's horse industry.

Associate of Arts Program
Suggested Sequence of Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td><strong>First Semester</strong></td>
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<tr>
<td>COM 6524 Communications I</td>
<td>3</td>
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<tr>
<td>SES 1216 Stable Management</td>
<td>3</td>
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<tr>
<td>SES 2335 Equine Anatomy and Physiology</td>
<td>4</td>
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<tr>
<td>SES 1395 Western Horsemanship</td>
<td>2</td>
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<tr>
<td>SES 2352 Basic Horse Training</td>
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<tr>
<td>Elective</td>
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<tr>
<td><strong>TOTAL HOURS</strong></td>
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<tr>
<td>COM 1467 Communications II</td>
<td>3</td>
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<tr>
<td>SS 1068 Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SES 3820 Equine Health &amp; Disorders</td>
<td>4</td>
</tr>
<tr>
<td>SES 1880 English Equitation</td>
<td>2</td>
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<tr>
<td>SES 3784 Advanced Horse Training*</td>
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<td>CSP 4950 Interpersonal Communications</td>
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<tr>
<td>BUS 2171 Small Business Accounting</td>
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<td>SES 3029 Equine Breeding &amp; Management</td>
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<tr>
<td>or SES 4140 Intermediate English Equitation*</td>
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<tr>
<td>SES 1103 Equine Showmanship</td>
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<td><strong>Fourth Semester</strong></td>
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<tr>
<td>BUS 2341 Personnel Management</td>
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<tr>
<td>SES 1156 Basic Horseshoeing</td>
<td>3</td>
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<tr>
<td>SES 1350 Equine Nutrition</td>
<td>4</td>
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<tr>
<td>SES 2430 Advanced Western Equitation*</td>
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</tr>
<tr>
<td>or SES 3762 Advanced English Equitation*</td>
<td>2</td>
</tr>
<tr>
<td>SES 1308 Equine Judging</td>
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<tr>
<td>Elective</td>
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<tr>
<td><strong>TOTAL HOURS</strong></td>
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*Prerequisite course work required.

Riding Instructor Certification Program
Suggested Sequence of Courses

<table>
<thead>
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<th>Course</th>
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<tr>
<td>SES 1216 Stable Management</td>
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<tr>
<td>SES 1184 Tech. of Riding Instruction I</td>
<td>3</td>
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<tr>
<td>SES 1395 Western Equitation</td>
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<tr>
<td>SES 1880 English Equitation</td>
<td>2</td>
</tr>
<tr>
<td>SES 2352 Basic Horse Training</td>
<td>2</td>
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<tr>
<td>Elective</td>
<td>3</td>
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<tr>
<td><strong>TOTAL HOURS</strong></td>
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</tr>
<tr>
<td><strong>Second Semester</strong></td>
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</tr>
<tr>
<td>SES 1237 Tech. of Riding Instruction II*</td>
<td>3</td>
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<tr>
<td>SES 2430 Advanced Western Equitation*</td>
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<td>SES 3762 Advanced English Equitation*</td>
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<tr>
<td>SES 3784 Advanced Horse Training*</td>
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<tr>
<td>SES 1103 Equine Showmanship</td>
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<tr>
<td>SES 1308 Equine Judging</td>
<td>2</td>
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<tr>
<td>SES 3489 Advanced Equitation Project</td>
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<tr>
<td><strong>TOTAL HOURS</strong></td>
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FASHION MERCHANDISING
In the Fashion Merchandising Program you will take courses related to merchandising, marketing and management because they are competitive areas which apply to today's fashion field. The fashion industry includes five areas of operation: textile, apparel designs, manufacturing, media and promotion, and retailing. JCCC's Fashion Merchandising Program is a combination of campus instruction and on-the-job training experiences in fashion-related fields. Field experiences are 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, the Orient and Europe.

Suggested Sequence of Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
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<tr>
<td>BFM 2017 Seminar: Human Relations (F)</td>
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<tr>
<td>BFM 7013 Fashion Fundamentals I (F)</td>
<td>3</td>
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<tr>
<td>BFM 3046 Fashion in Society</td>
<td>3</td>
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<tr>
<td>BMM 1026 Retailing</td>
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<tr>
<td>Elective</td>
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<tr>
<td><strong>TOTAL HOURS</strong></td>
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<tr>
<td><strong>Second Semester</strong></td>
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<tr>
<td>BFM 2204 Seminar: Supervisory Develop. (S)</td>
<td>3</td>
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<tr>
<td>BFM 1195 Textiles</td>
<td>3</td>
</tr>
<tr>
<td>BMM 2407 Creative Retail Selling</td>
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<tr>
<td>BFM 4655 Fashion Promotion (S)</td>
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<tr>
<td><strong>TOTAL HOURS</strong></td>
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</tbody>
</table>
Third Semester
BFM 7552 Seminar: Career Options (F) 3
BFM 1019 Fashion Fundamentals II (F) 3
BUS 7007 Marketing 3
BFM 1054 Fashion Display (F) 3
Elective 3
TOTAL HOURS 15

Fourth Semester
BFM 1165 Seminar: Marketing Research (S) 3
BFM 3503 Merchandising Evaluation (S) 3
BUS 2004 Intro. to Economic Issues 3
Electives 6
TOTAL HOURS 15

Suggested Electives
BFM 2568 History of Dress (S) 3
BFM 5294 Fashion Illustration I 3
BFM 1926 Fashion Illustration II (S) 3
BFM 5149 Interior Design I 3
BFM 2925 Interior Design II 3
BFM 2259 Personal Finance 3
BFM 4092 Accounting I 3
HAR 1192 Weaving 3
BUS 2341 Personnel Management 3
BUS 1121 Business Law 3
BDP 7135 Business Data Processing 3
COM 6524 Communications I 3
MTH 2122 Fundamentals of Math 3
CSP 4950 Interpersonal Communication 3
SS 3404 Sociology 3
SS 1068 Psychology 3
(F) offered in fall semester only,
(S) offered in spring semester only.

FIRE PROTECTION/PUBLIC SAFETY
The associate degree and certificate programs are designed to provide advanced professional training to fire fighters, architects, insurance adjusters and others with fire and safety interest. This program allows you to work on a 30-credit-hour certificate program in fire prevention, fire protection or fire service administration. You may receive an associate degree by combining two 30-credit-hour programs or by completing one certificate program and an additional 30 credit hours of relevant course work.

Prevention
EFS 1745 Fundamentals of Fire Prevention 3
EFS 2742 Hazardous Materials I 3
EFS 6749 Hazardous Materials II 3
EFS 3744 Building Construction for Fire Protection 3
EFS 4750 Fire Investigation 3
Electives 15
TOTAL HOURS 30

Administration
EFS 1752 Fire Company Organization and Management 3
EFS 4754 Fire Service Comm. Systems 3
EFS 5746 Fire Service Records & Reports 3
EFS 6753 Related Codes & Ordinances 3
Electives 18
TOTAL HOURS 30

Protection
EFS 1743 Introduction to Fire Science 3
EFS 1748 Fire Hydraulics 3
EFS 3757 Fire Apparatus and Equipment 3
EFS 4751 Fire Protection Equipment and Systems 3
EFS 5756 Fire Tactics and Strategy 3
NET 6441 Emergency Medical Technician 5
Electives 10
TOTAL HOURS 30

Technical Electives
EFS 6747 Fire Vehicle Maintenance for Operators and Mechanics 3
EFS 6755 Rescue Practices 3
NPS 6634 Principles of Chemistry 5
EGR 5269 Industrial Science 3
MTH 4354 Technical Math I 5
SLE 7108 Criminal Justice System 3
EFS 2415 Seminar: Fire Protection and Public Safety 1
*Major Disasters & Civil Disorders 3
*Investigative Photography 3
*Readings in Fire & Safety Tech. 1-3

Nontechnical Electives
COM 5035 Fundamentals of Writing 3
CSP 4950 Interpersonal Communication 3
SS 1068 Introduction to Psychology 3
*Public Relations 3
*Industrial Supervision 3

*Courses yet to be developed.

HOSPITALITY MANAGEMENT
You choose from two options in the Hospitality Management Program at JCCC. You may earn either a one-year certificate or a two-year degree which emphasizes management skills. The program emphasizes 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. Primary emphasis is on training you for job entry management positions. But the program also is designed to help you broaden and update your skills and knowledge. Plan your program with the program coordinator.
<table>
<thead>
<tr>
<th>Suggested Sequence of Courses</th>
<th>Credits</th>
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<tbody>
<tr>
<td><strong>First Semester</strong></td>
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<tr>
<td>BHM  6037 Hospitality Management Fund</td>
<td>3</td>
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<tr>
<td>BHM  7028 Basic Food Preparation</td>
<td>3</td>
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<tr>
<td>COM  6524 Communications I</td>
<td>3</td>
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<tr>
<td>BHM  1287 Seminar: Purchasing</td>
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<tr>
<td>BHM  3006 Food Management</td>
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<td>BHM  4489 Supervisory Management</td>
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<td>BHM  5008 Seminar: Accounting</td>
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<td>BUS  2341 Personnel Management</td>
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<td><strong>Summer Session</strong></td>
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<td>BHM  2640 Seminar: Internship</td>
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<tr>
<td>BHM  4805 Seminar: Menu Planning and Sales Promotion</td>
<td>3</td>
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<tr>
<td>BHM  4203 Hotel-Restaurant Operations</td>
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<td>BHM  3804 Design Techniques</td>
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<td>CSP  4950 Interpersonal Communications</td>
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<tr>
<td>BHM  7803 Advanced Food Prep. &amp; Meats</td>
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<td>BHM  1388 Seminar: Advanced Hosp. Mgmt.</td>
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<td>BHM  4807 Seminar: Beverage Control</td>
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<tr>
<td>BDP  7135 Business Data Processing</td>
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<td>CJO  2136 Fundamentals of Advertising</td>
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<td>HUM  6392 Logic</td>
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<td>PD   1078 Phys. Fitness &amp; Weight Training</td>
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<td>SS   1068 Psychology</td>
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<td>BAC  2171 Small Business Accounting</td>
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<td>BUS  2259 Personal Finance</td>
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<tr>
<td>BMM  5026 Salesmanship</td>
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</table>

**HOSPITALITY MANAGEMENT/CULINARY**

Culinary arts is one of the most dynamic fields you can enter. Because of the steady increase in disposable income, the average family eats out more often than previous generations, thus creating a tremendous growth in the hospitality industry. The restaurant/food service industry is the third largest in the United States.

This program consists of three years (6,000 hours) on-the-job training. You will be on probation during the initial 500 hours. Upon job placement, you will be eligible to join the American Culinary Federation Educational Institute for registered apprentice membership. Also, at this time you will be registered with the Department of Labor and will be officially indentured to your supervising chef and the sponsoring American Culinary Federation affiliate chapter.

<table>
<thead>
<tr>
<th>Suggested Sequence of Courses</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
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<tr>
<td>BHM  6037 Hospitality Management Fund</td>
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<td>BHM  7028 Basic Food Preparation</td>
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<tr>
<td>BHM  4807 Seminar in Beverage Control</td>
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<td>BHM  4489 Supervisory Management</td>
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<td>BHM  4941 Practicum II</td>
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<tr>
<td><strong>First Summer</strong></td>
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<tr>
<td>COM  6524 Communications I</td>
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<tr>
<td>BHM  1287 Seminar in Purchasing</td>
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<td>BHM  2166 Food Specialties: Garde-Manger</td>
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<tr>
<td>BHM  5942 Practicum III</td>
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<td><strong>Fourth Semester</strong></td>
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<td>BHM  7803 Advanced Food Preparation</td>
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<td>BHM  5008 Seminar in Accounting</td>
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<td><strong>Second Summer</strong></td>
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<td>CSP  4950 Interpersonal Communications</td>
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### Fifth Semester
- BHM 4805 Menu Planning ....................... 3
- BHM 6944 Practicum V ......................... 2
- Elective ......................................... 3
- **TOTAL HOURS** ................................. 8

### Sixth Semester
- BHM 2163 Fundamentals of Baking ............. 3
- BHM 9945 Practicum VI .......................... 2
- **TOTAL HOURS** ................................. 8

### Suggested Sequence of Courses

<table>
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<th>Course Code</th>
<th>Course Title</th>
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<td>LC 7029</td>
<td>Basic Manual Communications</td>
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<td></td>
<td>LC 1818</td>
<td>Sign Language Lab</td>
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<td>LC 5166</td>
<td>Orientation to Interpreting</td>
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<td>COM 6524</td>
<td>Communications I</td>
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<td></td>
<td>NLS 6186</td>
<td>Human Anatomy/Physiology</td>
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</table>

| **Second Semester** | LC 6035 | Advanced Manual Communications               | 3       |
|                    | LC 5167 | Comm. Systems of Deafness I                  | 3       |
|                    | LC 5169 | Understanding Deafness                       | 3       |
|                    | COM 1467| Communications II                            | 3       |
|                    | SS 1068 | Introduction to Psychology                   | 3       |
|                    | **TOTAL HOURS** |                                       | **15** |

| **Third Semester** | LC 5168 | Comm. Systems of Deafness II                | 3       |
|                   | LC 5170 | Interpreting I                              | 3       |
|                   | CSP 4130| Public Speaking                             | 3       |
|                   | SS 3404 | Sociology                                   | 3       |
|                   | Elective|                                           |         |
|                   | **TOTAL HOURS** |                                       | **15** |

| **Fourth Semester** | LC 5171 | Interpreting II                             | 3       |
|                    | LC 5172 | Interpreting Practicum                      | 3       |
|                    |        | Hum/Soc. Sci Electives                      | 6       |
|                    |        | Elective                                    | 3       |
|                    | **TOTAL HOURS** |                                       | **15** |

### Interpreter Certificate Program

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC 7029</td>
<td>Basic Manual Communications</td>
<td>3</td>
</tr>
<tr>
<td>LC 1818</td>
<td>Sign Language Lab</td>
<td>1</td>
</tr>
<tr>
<td>LC 5166</td>
<td>Orientation to Interpreting</td>
<td>3</td>
</tr>
<tr>
<td>LC 6035</td>
<td>Advanced Manual Communications</td>
<td>3</td>
</tr>
<tr>
<td>LC 5167</td>
<td>Comm. Systems of Deafness I</td>
<td>3</td>
</tr>
<tr>
<td>LC 5169</td>
<td>Understanding Deafness</td>
<td>3</td>
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<tr>
<td>LC 5168</td>
<td>Comm. Systems of Deafness II</td>
<td>3</td>
</tr>
<tr>
<td>LC 5170</td>
<td>Interpreting I</td>
<td>3</td>
</tr>
<tr>
<td>LC 5171</td>
<td>Interpreting II</td>
<td>3</td>
</tr>
<tr>
<td>LC 5172</td>
<td>Interpreting Practicum</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td></td>
<td><strong>28</strong></td>
</tr>
</tbody>
</table>

### LIFE AND HOME MANAGEMENT

The development of human relations and home management skills is becoming more important as today's individuals and families face new complexities and crises, changes in lifestyles and socio-economic problems.

The fact that women are becoming more involved in jobs outside the home, coupled with changes in traditional male/female roles, means that both men and women need to develop better skills in managing lifestyles in the home.
You may choose to complete a 30-hour certificate program in life and home management. Or you may pursue an associate degree by combining the certificate program and completing an additional 30 credit hours of course work in another career program or in General Studies.

Certificate Program

30 Hours in Life and Home Management

Suggested Sequence of Courses

First Semester
BLH 7004 Home Management ............. 3
BLH 7003 Family Communications .......... 3
BLH 2859 Nutrition/Meal Planning (F) .... 3
Electives ........................................ 6
TOTAL HOURS ............................... 15

Second Semester
BUS 2259 Personal Finance ............ 3
BFM 3046 Fashion & Society ............ 3
BLM 2858 Housing & Equipment (S) .... 3
BFM 5149 Interior Design I ............. 3
Elective .......................................... 3
TOTAL HOURS ............................... 15

Associate of Arts Degree

30 Hours in Life and Home Management
30 Hours in One of the Existing Career Programs
(or in General Studies)

Suggested Sequence of Courses

First Semester
BLH 7004 Home Management ............. 3
BHM 5149 Interior Design I ............. 3
Electives ........................................ 9
TOTAL HOURS ............................... 15

Second Semester
BLH 7003 Family Communications .......... 3
BUS 2259 Personal Finance ............ 3
Electives ........................................ 9
TOTAL HOURS ............................... 15

Third Semester
BLH 2859 Nutrition/Meal Planning (F) .... 3
BFM 3046 Fashion & Society ............ 3
Electives ........................................ 9
TOTAL HOURS ............................... 15

Fourth Semester
BLH 2858 Housing & Equipment (S) .... 3
BHM 2925 Interior Design II* ......... 3
Electives ........................................ 9
TOTAL HOURS ............................... 15

* Suggested
(F) offered fall semester only
(S) offered spring semester only

Suggested Electives
LC 2002 Human Potential Seminar ....... 3
SS 1068 Psychology .......................... 3
SS 3546 Child Development ............ 3
SS 5716 Marriage and Family ............ 3

BFM 2925 Interior Design II ............. 3
BFM 1195 Textiles ............................ 3
LC 7227 Career/Life Planning .......... 3
BSC 1342 Records Management .......... 3
SS 4639 Personality and Adjustment .... 3
BUS 6038 Savings and Investment ....... 3
CSP 4950 Interpersonal Communications .... 3
SS 8975 American Family History ....... 3

MARKETING AND MANAGEMENT

This comprehensive, two-year program is designed to prepare you for a career in retail, wholesale or manufacturing sales; in marketing research analysis; store management; and buying and service sales. As a full-time or part-time student in this program, you will attend classes at JCCC and, on an individual basis, participate in a formal career experience program (on-the-job training) in a business. Instruction on the job and at the College is integrated to provide the knowledge, skills and attitudes you need to reach your career objectives.

Approved work experience in a related marketing or management position in the community provides you an opportunity to check your theoretical training against the everyday problems of a practical business operation. The evaluation of your progress on the job is a cooperative effort between the training sponsor/employer and College coordinator. While on the job, you may acquire basic merchandising information and learn how to deal with people. The program coordinator may arrange for job interviews if you are seeking employment. If you already have a job, it must be approved by the coordinator. While in training you will be paid a wage you and your employer agree upon.
**MEDICAL RECORD TECHNOLOGY**

The medical record technician has the technical skills to maintain the components of health information systems consistent with the medical, administrative, ethical, legal, accreditation and regulatory requirements of the health care delivery system. Area hospitals and a variety of other health facilities in the community offer field experience in all procedures performed by the medical record technician. The College faculty teach some of the courses at Baptist Memorial Hospital. You will be responsible for transportation to Baptist Memorial Hospital and to all other clinical agencies.

When you graduate from the program, you will receive an Associate of Arts degree and will be eligible to take the accreditation examination of the American Medical Record Association. Application packets for the Medical Record Program, available at the Admissions/Records Office, include specific information on admission requirements and procedures. The program is accredited by the Committee on Allied Health Education and Accreditation in collaboration with the American Medical Record Association.
Suggested Sequence of Courses

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NMR 1135 Intro. to Med. Record Profession</td>
<td>2</td>
</tr>
<tr>
<td>NMR 2681 Health Record Systems, Analysis and Controls</td>
<td>3</td>
</tr>
<tr>
<td>NLS 6186 Human Anatomy/Physiology</td>
<td>5</td>
</tr>
<tr>
<td>COM Elective</td>
<td>3</td>
</tr>
<tr>
<td>COM Elective</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NMR 2685 Health Statistics &amp; Research Meth.</td>
<td>2</td>
</tr>
<tr>
<td>NMR 2682 Classifications, Nomenclatures, Indices and Registries</td>
<td>2</td>
</tr>
<tr>
<td>NLS 1037 Pathophysiology</td>
<td>3</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Semester</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BSC 4715 Medical Transcription</td>
<td>3</td>
</tr>
<tr>
<td>NMR 2686 Medical Terminology IV</td>
<td>3</td>
</tr>
<tr>
<td>NMR 7111 Directed Practice I</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fourth Semester</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NMR 2684 Legal Aspects of Med. Records</td>
<td>2</td>
</tr>
<tr>
<td>NMR 2345 Departmental Seminar</td>
<td>2</td>
</tr>
<tr>
<td>NMR 3117 Directed Practice III</td>
<td>5</td>
</tr>
<tr>
<td>SS 1068 Psychology</td>
<td>3</td>
</tr>
<tr>
<td>COM Elective</td>
<td>3</td>
</tr>
<tr>
<td>COM Elective</td>
<td>3</td>
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<tr>
<td><strong>TOTAL HOURS</strong></td>
<td><strong>18</strong></td>
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</table>

<table>
<thead>
<tr>
<th>Electives</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>15 hours to be chosen from this list:</td>
<td></td>
</tr>
<tr>
<td>Communications</td>
<td>6</td>
</tr>
<tr>
<td>Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>Humanities</td>
<td>3</td>
</tr>
<tr>
<td>Natural Science</td>
<td>4-5</td>
</tr>
<tr>
<td>Typing</td>
<td>3</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>3</td>
</tr>
<tr>
<td>Speech</td>
<td>3</td>
</tr>
</tbody>
</table>

**MENTAL HEALTH TECHNOLOGY**

Kansas regulations require that anyone giving therapy to patients in a state-approved mental institution be certified as a mental health technician. The State Board of Nursing specifies the general curriculum for this program. The curriculum must be nine months and contain 900 clock hours of instruction. The requirements for specific courses and semester hour/contact hour equivalents are explained in the rules and regulations for mental health technicians. The proposed curriculum below follows these rules and meets the requirements.

**Nontclinical Courses at JCCC**

<table>
<thead>
<tr>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS 1068 Introduction to Psychology</td>
</tr>
<tr>
<td>SS 3546 Child Development</td>
</tr>
<tr>
<td>SS 3428 Social Problems</td>
</tr>
<tr>
<td>SS 5716 Marriage and the Family</td>
</tr>
<tr>
<td>NLS 6186 Human Anatomy/Physiology</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
</tr>
</tbody>
</table>

**Clinical Courses at Rainbow Unit**

<table>
<thead>
<tr>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NMH 8881 Mental Health Technology I</td>
</tr>
<tr>
<td>NMH 2883 Mental Health Technology II</td>
</tr>
<tr>
<td>NMH 7884 Mental Health Technology III</td>
</tr>
<tr>
<td>NMH 4885 Mental Health Technology IV</td>
</tr>
<tr>
<td><strong>TOTAL HOURS</strong></td>
</tr>
</tbody>
</table>

About 480 clock hours are devoted to theory and 460 clock hours to clinical or laboratory. This is slightly in excess of the state-required minimum, but is built as much as possible around courses JCCC currently offers. An additional 20 hours of credit classes are required to receive an Associate of Arts degree from JCCC.

**NURSING**

JCCC's Associate Degree Nursing Program is accredited by the Kansas Board of Nursing and the National League for Nursing. When you successfully complete the sequence of courses listed below, you will be eligible to take the licensing examination to become a registered nurse. 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 ability to work cooperatively and productively with others is essential. The program is difficult and requires long hours of class, laboratory and study. The ability to manage stress and stressful situations and the flexibility to meet the demands of the program are important considerations.
Suggested Sequence of Courses | Credits
---|---
**Summer**
NDS 6634 Principles of Chemistry** | 5

**First Semester**
NLS 1128 Anatomy | 4
SS 1068 Psychology | 3
NRN 8846 Concepts of Health | 8
**TOTAL HOURS** | **15**

**Second Semester**
NLS 1144 Physiology | 4
SS 3546 Child Development | 3
NRN 3131 Adaptation to Change | 8
**TOTAL HOURS** | **15**

**Third Semester**
NRN 2847 Short Term Health Problems | 9
Social Science Elective* | 3
Communications* | 3
**TOTAL HOURS** | **15**

**Fourth Semester**
NRN 5848 Long Term Health Problems | 9
Humanities Elective* | 3
Natural Science Elective* | 5
**TOTAL HOURS** | **17**

*You may select specific courses to meet these requirements from this list:
Social Sciences: Sociology, Social Problems
Communications: Communications I, II, Creative Writing
Humanities: Course should be selected in consultation with the program coordinator.

**It is recommended you take Principles of Chemistry in the summer prior to the program to satisfy prerequisites. This also satisfies fourth semester Natural Science requirements. Microbiology is optional but recommended for the program.**

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**PARALEGAL**

The Paralegal Program is designed to prepare you for a career as a paralegal or legal assistant. Through a basic understanding of the law within contemporary legal context and by means of an appropriate sequence of courses, you can become qualified to pursue a paralegal career with high levels of proficiency and responsibility. In a wide variety of situations related to the practice of law, the paralegal directly assists attorneys in all phases of their practice under their supervision and practice. If you are interested in a paralegal career, you need writing skills, the ability and willingness to accept responsibility, an aptitude for organizing ideas and materials, and the ability to communicate and take directions. With an attorney’s supervision and direction, a paralegal can expect to:

- prepare, summarized 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
- handle office administrative duties

The Paralegal Program offers a certificate upon completion of 30 credits, if you wish only to improve your knowledge and qualifications. Or you may obtain an Associate of Arts degree upon completion of 60 credits. The Associate of Arts degree is approved by the American Bar Association.

**Associate of Arts Degree (60 credits)**

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPL 9739 Introduction to Paralegalism</td>
<td>3</td>
</tr>
<tr>
<td>BPL 7740 Legal Research and Writing</td>
<td>3</td>
</tr>
<tr>
<td>BPL 5413 Seminar: Workmen's Compensation and Bankruptcy</td>
<td>3</td>
</tr>
<tr>
<td>BPL 7980 Seminar: Legal Interviewing and Investigation</td>
<td>3</td>
</tr>
<tr>
<td>COM 6524 Communications I</td>
<td>3</td>
</tr>
<tr>
<td>CSP 4950 Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>Paralegal Electives (see list)</td>
<td>18</td>
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<tr>
<td>General Electives</td>
<td>24</td>
</tr>
</tbody>
</table>
**TOTAL HOURS** | **60**

**Certificate Program (30 Credits)**

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPL 9739 Introduction to Paralegalism</td>
<td>3</td>
</tr>
<tr>
<td>BPL 7740 Legal Research &amp; Writing</td>
<td>3</td>
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<tr>
<td>BPL 5413 Seminar: Workmen's Compensation and Bankruptcy</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>BPL 7980 Seminar: Legal Interviewing and Investigation</td>
<td>3</td>
</tr>
<tr>
<td>COM 6524 Communications I</td>
<td>3</td>
</tr>
<tr>
<td>CSP 4950 Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>Paralegal Electives (see list)</td>
<td>12</td>
</tr>
<tr>
<td>General Electives</td>
<td>3</td>
</tr>
</tbody>
</table>
**TOTAL HOURS** | **30**

---

37
Paralegal Elective Courses
BPL 2828 Real Estate Law I .......................... 3
BPL 7826 Wills, Trusts & Probate Admin ......................... 3
BPL 2184 Business Organizations I ......................... 3
BPL 7917 Litigation I .................................. 3
(Two of the above four courses must be taken.)
BPL 1910 Family Law .................................. 3
BPL 2175 Law Office Systems ............................ 3
BPL 9918 Commercial Transactions ............................. 3
BPL 6090 Real Estate Law II .................................. 3
BPL 2218 Estate Planning .................................. 3
BPL 3320 Business Organizations II ......................... 3
BPL 8940 Litigation II .................................. 3

PHYSICAL THERAPY ASSISTANT
The physical therapy assistant, under the supervision of a licensed physical therapist, performs direct patient care, using physical agents such as heat, light, sound, water, cold, massage, exercise and rehabilitation techniques as prescribed by a physician.

Physical Therapy Assistant 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 the program. The supportive courses will be held at JCCC and the core courses at Penn Valley and affiliate clinical agencies. Register for all courses at JCCC. You will receive an Associate of Arts degree upon graduation from JCCC.

The Physical Therapy Assistant Program at Penn Valley Community College is accredited by the American Physical Therapy Association.

Required Courses at JCCC

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>NS 5381 Medical Terminology I</td>
<td>2</td>
</tr>
<tr>
<td>NLS 6540 Life Science</td>
<td>4</td>
</tr>
<tr>
<td>SS 1068 Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>NPS 6634 Principles of Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>SS 3404 Sociology</td>
<td>3</td>
</tr>
<tr>
<td>NLS 1128 Human Anatomy</td>
<td>4</td>
</tr>
<tr>
<td>COM 6540 Communications I</td>
<td>3</td>
</tr>
<tr>
<td>CSP 4950 Interpersonal Communications</td>
<td>3</td>
</tr>
<tr>
<td>NLS 1144 Physiology</td>
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</table>

TOTAL HOURS 31

Required Courses at PVCC

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>NPT 9770 Introduction to Physical Therapy</td>
<td>2</td>
</tr>
<tr>
<td>NPT 9771 Fundamentals of Physical Therapy</td>
<td>3</td>
</tr>
<tr>
<td>NPT 9772 Kinesiology</td>
<td>4</td>
</tr>
<tr>
<td>NPT 9773 Therapeutic Modalities</td>
<td>5</td>
</tr>
<tr>
<td>NPT 9774 Rehabilitation</td>
<td>4</td>
</tr>
<tr>
<td>NPT 9775 Therapeutic Exercise</td>
<td>5</td>
</tr>
<tr>
<td>NPT 9776 Clinical Pathology</td>
<td>3</td>
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<tr>
<td>NPT 9777 Clinical Experience I</td>
<td>3</td>
</tr>
<tr>
<td>NPT 9778 Clinical Seminar</td>
<td>1</td>
</tr>
<tr>
<td>NPT 9779 Clinical Experience II</td>
<td>11</td>
</tr>
<tr>
<td>NPT 9780 Clinical Seminar II</td>
<td>2</td>
</tr>
</tbody>
</table>

TOTAL HOURS 43

RADIOLOGIC TECHNOLOGY
The Radiologic Technology Program (X-ray technology) consists of a continuous 27-month period. You will study areas such as radiographic exposure, positioning and anatomy and gain an understanding of the equipment used. This is a cooperative program between JCCC and Penn Valley Community College. You must formally be 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.

Required Courses at JCCC

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS 1068 Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>COM 6540 Communications I</td>
<td>3</td>
</tr>
<tr>
<td>SS 3404 Sociology</td>
<td>3</td>
</tr>
<tr>
<td>NPS 3308 General Physics I</td>
<td>4</td>
</tr>
<tr>
<td>CSP 4950 Interpersonal Communications</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL HOURS 16

Required Courses at PVCC

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NRD 9801 Medical and Radiology Terms</td>
<td>3</td>
</tr>
<tr>
<td>NRD 9802 Radiologic Technology</td>
<td>3</td>
</tr>
<tr>
<td>NRD 9803 Radiographic Exposures I</td>
<td>3</td>
</tr>
<tr>
<td>NRD 9804 Radiographic Positioning I</td>
<td>3</td>
</tr>
</tbody>
</table>
RECREATIONAL LEADERSHIP
The Recreational Leadership Program includes introduction and study of basic skills in many areas including team sports, first aid, and arts and crafts. The program emphasizes coordination of theory and knowledge acquired in the classroom with recreation and therapeutic situations in the community. The courses listed below are considered essential for job entry in the field of recreational leadership. It is equally important to select supportive courses in physical development and/or the arts to satisfy degree requirements. If you do not wish to obtain an A.A. degree, the certificate program allows you to complete requirements in one year. The program includes 23 credit hours--10 in the fall and 13 in the spring semester. You are encouraged to pursue an Associate of Arts degree and a four-year degree for better employment opportunities in the field. However, it is up to you to select the program you desire. You will gain practical experience through supervised field work at various recreation agencies throughout Johnson County and area hospitals. You also will be involved in leadership responsibilities such as planning, conducting and evaluating an activity or program.

Certificate Program
Suggested Sequence of Courses Credits
First Semester
PD 4291 Individual Lifetime Sports (F) 2
PRL 5298 Introduction to Rec. Services (F) 3
PD 2711 First Aid 3
PD 7168 Fall Sports Officiating (F) 2
TOTAL HOURS 10
Second Semester
PRL 7164 Outdoor Recreation (S) 3
PRL 2459 Social Recreation (S) 2

RESPIRATORY THERAPY
The respiratory therapist is skilled in the treatment, management and preventive care of patients with cardio-pulmonary problems. The therapist utilizes a wide range of sophisticated ventilatory and monitoring equipment, and is an essential part of the critical care team. Therapists provide many vital services in the hospital and work with people of all ages.

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

The need for trained respiratory therapists in the hospital setting continues to grow. Opportunities in outpatient clinics and public health agencies are increasing as the national trend away from extended hospital stays continues.
Required Courses at JCCC

NLS 1128  Human Anatomy ................. 4
NLS 1144  Human Physiology .............. 4
NPS 6634  Principles of Chemistry ....... 5
NPS 1031  Physical Science ............... 4
NLS 5593  Microbiology .................. 3
COM 6524  Communications I .............. 3
MTH 3370  Algebra ....................... 3-5
NLS 6057  Microbiology Lab .............. 2

TOTAL HOURS .................. 28-30

Required Courses at Baptist

NRT 3370  Beg. Princ. of Resp. Therapy .... 4
NRT 3371  Respiratory Therapy Equipment ... 4
NRT 3372  Cardiopulmonary Medicine I ..... 1
NRT 3373  Clinical Cardiopulmonary Phys. .. 4
NRT 3374  Clinical Practice I ............. 4
NRT 3375  Clinical Topics & Procedures I ... 3
NRT 3376  Cardiopulmonary Medicine II ..... 2
NRT 3377  Respiratory Pharmacology ....... 2
NRT 3378  Clinical Practice II ............ 4
NRT 3379  Clinical Topics & Procedures II ... 4
NRT 3380  Cardiopulmonary Medicine III ... 2

TOTAL HOURS .................. 34

SECRETARIAL CAREERS

The Secretarial Careers Program is designed to prepare top-quality persons for challenging secretarial responsibilities in business, industry and government. Automation plays a large part in today’s office work. At JCCC, you will be trained on the latest equipment and procedures. Laboratories contain advanced automatic typewriters such as four Memory and two Mag Card II automatic typewriters. Machine transcription is taught on the latest equipment using belt and cassette transcribing techniques. Work experience programs are available with the approval of the instructor. Legal, medical and other special options in professional work are open to qualified persons. If you are interested in preparing for the Professional Secretary Examination, consult with an instructor early into the program to satisfy both course selection and work experience requirements. You may take short courses and special programs if you want to sharpen present skills or to prepare to re-enter the job market.

Suggested Sequence of Courses

First Semester

BUS 4282  Introduction to Business .......... 3
COM 6524  Communications I .............. 3
BSC 2376  Intermediate Typing ........... 3
BSC 4590  Shorthand II .................. 3
BSC 5538  Secretarial Field Study ....... 3

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

Second Semester

BDP 7135  Business Data Processing .......... 3
BSC 1342  Records Management ............. 3
BSC 7633  Production Typing ............... 3
or
BSC 5188  Automatic Typewriters .......... 2
and
BSC 5190  Electronic Calculators ........... 1
BSC 2190  Secretarial Field Study ....... 3
Electives ......................... 3

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

Summer Session

BSC 1075  Secretarial Field Study* .......... 3

Third Semester

BSC 1272  Secretarial Procedures I ......... 3
BAC 4092  Accounting I .................. 3
or
BAC 2171  Small Business Accounting ....... 3
BSC 5189  Machine Transcription .......... 3
BSC 4492  Secretarial Field Study ....... 3
Electives ......................... 3

Fourth Semester

BSC 2317  Secretarial Procedures II ....... 3
BUS 2253  Economics I .................. 3
or
BUS 2004  Introduction to Economic Issues .. 3
BSC 3214  Secretarial Field Study ....... 3
Electives ......................... 3

*Business Law I may be substituted.

Recommended Electives

BSC 3630  Dictation and Transcription
BSC 4715  Medical Transcription
BSC 2267  Legal Secretary I
BUS 1007  Business Communications
BUS 2341  Personnel Management
BAC 5096  Accounting II
SS 1068  Psychology
BUS 2259  Personal Finance

There are five different Secretarial Field Study courses: Office Procedures, Business Math, Business Law, Management, and Human Relations. These are offered on a rotation basis.
SMALL ANIMAL HEALTH
This program is designed to provide you the skills and knowledge necessary to assist the practicing veterinarian in professional services and office routines. Employment opportunities are in laboratory care and pharmaceutical animal colonies. This program is offered in cooperation with the Animal Health Technology Program at Maple Woods Community College. You must be formally accepted by both JCCC and Maple Woods to be admitted to the program.

Courses Offered at Maple Woods

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Courses Offered at JCCC

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URBAN AGRIBUSINESS
This program will prepare you to work with plant life in a variety of settings. As a student in the program, you will study plant development, pest control, landscape principles and greenhouse construction among other topics. You also will study the business aspects of urban agribusiness and will receive on-the-job training in field placements. Urban Agribusiness is a cooperative program between JCCC and Longview Community College. Supportive courses will be held at JCCC and essential career courses at Longview. You should register at JCCC for all courses. When you successfully complete the program, you will receive an Associate of Arts degree from JCCC or an Associate degree in Applied Science from Longview Community College.

Required Courses at JCCC

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Required Courses at Longview

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Elective Courses at Longview
(Any 3 of the following courses)

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Course Descriptions
ACCOUNTING

FEDERAL INCOME TAXES .......... BAC 2360
Procedures for reporting federal income taxes with emphasis on income and deductions for individuals. Practice is given in preparing Federal Income Tax Returns. Class meets three hours a week. Three credits.

SMALL BUSINESS ACCOUNTING .... BAC 2171
Introduction to various aspects of starting and operating a small business with emphasis on the basic accounting procedures needed to maintain daily records for the small firm. Designed to meet the needs of the individual operating a firm with occasional help of an outside accountant. Does not prepare the student for Accounting II (BAC 5096). Class meets three hours a week. Three credits.

ACCOUNTING I .................. BAC 4092
Introduction to accounting fundamentals. Emphasis on the recording and analysis of transactions and the use of journals, ledgers and financial statements. Class meets three hours a week. Three credits.

ACCOUNTING II .................. BAC 5096
Prerequisite: BAC 4092 or by permission. Continuation of BAC 4092 (Accounting I) with increased emphasis on interpretation and use of accounting data by management. Accounting theory application in business organizations including preparation and use of financial statements. Class meets three hours a week. Three credits.

COST ACCOUNTING ............... BAC 2436
Prerequisite: BAC 5096. Allocation of production costs to determine unit costs of goods manufactured and sold and the utilization of such data by management. Class meets three hours a week. Three credits.

INTERMEDIATE ACCOUNTING I .... BAC 6299
Prerequisite: BAC 5096. Application of accounting theory to the valuation of balance sheet accounts and fund flow analysis. Emphasis on cash and receivables, inventories, fixed assets and liabilities. Class meets three hours a week. Three credits.

INTERMEDIATE ACCOUNTING II .... BAC 6294
Prerequisite: BAC 5096. A continuation of the study of accounting concepts and technical procedures as applied to capital structure, earnings and dividends. Study will include long-term investment and debts, leases, pensions, analysis of financial reports, and price-level and fair-value accounting and reporting. Class meets three hours a week. Three credits.

MANAGERIAL ACCOUNTING ........ BAC 4063
Prerequisite: BAC 5096. Development and use of accounting information as an instrument of management control. Material includes financial statement analysis, cost application and budgeting reports to management. Class meets three hours a week. Three credits.

ACCOUNTING FOR NONPROFIT ORGANIZATIONS .......... BAC 4218
Prerequisite: BAC 4092. Continuation of the accounting concepts and technical procedures as applied to nonprofit organizations. Study will include budgetary processes, operating and non-profit operating funds as well as interfund and intrafund accounting procedures. Class meets three hours a week. Three credits.

FIELD STUDY ACCOUNTING SEMINAR .......... BAC 5099
Prerequisite: BAC 5096 (Accounting II). The student must be employed in an accounting or related position for a minimum of 15 hours a week. The seminar is a course designed for review of accounting principles and practice through the completion of several accounting cycles with the aid of practice sets. Class meets two hours a week. Three credits.

FIELD STUDY: BUSINESS MATH .......... BAC 3111
The student will become involved with a supervised work experience in an approved office situation for a minimum of 15 hours a week. The class content will be mathematical aspects of accounting and clerical work. Weekly class discussions focus on relating math content to on-the-job training. Three credits.

FIELD STUDY: HUMAN RELATIONS .... BAC 2036
Students must work an average of 15 hours a week in an approved situation. Emphasis is placed on human relations, communications and decision-making. Weekly class discussions focus on relating human relations content to current work experience. Class meets two hours a week. Three credits.

BOOKKEEPING/ACCOUNTING I: SHORT COURSE .............. BAC 1450
Introduction to journals, ledgers, working sheets and financial statements. Class meets two hours a week. Two credits.
FUNDAMENTALS OF CRIMINAL INVESTIGATION .......... SLE 5137
Prerequisite: SLE 7108. Investigative techniques for crime scene search; collection and preservation of evidence; interviewing; and logical reconstruction of crime. Class meets three hours a week. Three credits.

SUPERVISORY TECHNIQUES FOR POLICEMEN .......... SLE 7161
Prerequisite: SLE 7108. Current theory and practice of the supervisor's role in the police service. Class meets three hours a week. Three credits.

MOTOR VEHICLE LAW .......... SLE 2461
Standard traffic ordinances for Kansas cities. Emphasis on fundamentals of traffic regulation and control as related to law enforcement, courts and other governmental functions. Class meets three hours a week. Three credits.

INTRODUCTION TO CRIMINALISTICS .......... SLE 7292
Prerequisite: SLE 5137 or by permission. Skill training in techniques and methods to establish the identity and individualization of persons and things in a criminalistic laboratory. Class meets three hours a week. Three credits.

POLICE ORGANIZATION AND MANAGEMENT .......... SLE 7454
Contemporary methods and techniques used in the organization of a modern police department. Practical application of procedures used in management of people, money and materials to achieve departmental objectives. Class meets three hours a week. Three credits.

TRAFFIC SAFETY AND ACCIDENT INVESTIGATION .......... SLE 6653
Identification and analysis of the accident and investigative function of the police through the pre-crash and post-crash syndrome. Preparation of scale diagrams of accident situations. Class meets three hours a week. Three credits.

CONSTITUTIONAL CASE LAW .......... SLE 4418
In-depth analysis of important Supreme Court decisions concerning questions of constitutional law which have significant impact on law enforcement techniques and procedures. Class meets three hours a week. Enrollment open to all students. Three credits.

CRIME PREVENTION .......... SLE 4263
The emerging philosophy and basic concepts of crime prevention programs. Emphasis is placed on operational techniques utilized by public service agencies to operate crime prevention programs and how to provide technically accurate, cost effective security recommendations to members of the community. Class meets three hours a week. Enrollment open to all students. Three credits.
CRIMINOLOGY .................. SLE 1585

PATROL PROCEDURES ............ SLE 4033
Prerequisites: SLE 2080 or SLE 7108. Analysis of basic techniques of the police patrol function. Emphasis on report writing, traffic law enforcement, arrest, search and seizure, patrol and peacekeeping. Class meets three hours a week. Three credits.

DEFENSIVE TACTICS FOR POLICE ...... SLE 7288
Prerequisites: Fifteen hours credit in SLE courses. Proficiency in the use of the baton and service revolver as offensive and defensive weapons. Constitutional limitations on the use of force. Student required to furnish sufficient ammunition for qualification with service revolver. Class meets three hours a week. Three credits.

FUND. OF PRIVATE SECURITY ...... SLE 5006
An overview of the private security field, including organization and management of the security function in industry, business, government and institutions. The protection of personnel, facilities and other assets will be analyzed. Class meets three hours a week. Enrollment open to all students. Three credits.

EMERGENCY DISPATCHER FIELD STUDY .. SLE 5063
Prerequisite: Only students in appropriate programs will be accepted. On-the-job apprentice training under the supervision of a qualified dispatcher in Law Enforcement, Fire Protection or Emergency Medical Services. Affords the apprentice an opportunity to learn dispatching techniques and to apply the knowledge and skills acquired on-the-job and in theory-related courses. The field study will be conducted at an approved dispatching station and arranged by the JCCC program coordinator. Class meets by arrangement. Three credits.

EMERGENCY SERVICES AND THE PUBLIC .... SLE 2588
Prerequisite: none. Identification and analysis of conflicts arising between emergency services personnel and the community they serve. Function of the emergency services as social institutions within a free society. Class meets three hours a week. Three credits.

AGRICULTURE

INTRODUCTION TO AGRICULTURE ... NAS 3102
A survey of the options available to the student in agriculture. Various transfer and career choices will be presented. Job availability, educational requirements, typical entry salaries and transfer possibilities will be presented to assist the student in planning a career in agriculture. One credit, one contact.

PRINCIPLES OF ANIMAL SCIENCE ....... NAS 3103
Basic principles which apply to animal agriculture; survey of the industry; types, purposes and products of livestock; principles of breeding, selection, nutrition, lactation, reproduction, management and marketing. Class meets three hours a week. Three credits.

ART

INTRODUCTION TO ART HISTORY ... HAR 1713
Historical study of art, tracing its development from prehistoric times to the 18th century. Emphasis on the study of the growth and development of art forms and movements, leading to an understanding of the relationship of art to the historical periods. Class meets three hours a week. Three credits.

MODERN ART HISTORY .............. HAR 3878
An advanced art history course. Students will gain more experience in identification and study of 18th, 19th and 20th century American and European artists and their works. Class meets three hours a week. Three credits.

ELEMENTARY ART METHODS .......... HAR 4099
Exploration of art activities appropriate for children from preschool through sixth grade. Emphasis on relating activities to the child's patterns of growth and development. Three hours of class and three hours of laboratory a week. Three credits.

ART FUNDAMENTALS ............... HAR 1608
An intensive exploration of the visual arts. Designed to acquaint students with art forms and applications. Class meets six hours a week. Three credits.

AMERICAN ART SINCE 1945 ........... HAR 3008
A study of American painting and drawing. Traces the development from 1945 to the present. Students will visit major museums and important commercial galleries in New York City. One hour lecture and one hour lab each week. One credit.

DIRECTED READING IN CONTEMPORARY AMERICAN ART ............ HAR 3333
Prerequisite: Permission of the instructor. This course will explore the technical and philosophical points of view of contemporary American artists. A wide variety of styles will be considered. Class meets one hour a week. One credit.

DESIGN, 2D ..................... HAR 2880
An introductory study of the basic principles of visual...
perception, two-dimensional space organization and the visual elements of line, shape and texture. Class meets six hours a week. Three credits.

DESIGN, COLOR ........................................HAR 7209
A study of the nature of color, including its physical properties and visual qualities. Problems relating to color as light and as pigment will be explored. Class meets six hours a week. Three credits.

DESIGN, 3D ...........................................HAR 6021
A study of the function of three-dimensional organization in the development of visual ideas. Concepts, materials and processes necessary to an understanding of the three-dimensional relationships of space, form, form evolution and the dynamics of structure. Class meets eight hours a week. Four credits.

LIFE DRAWING I .....................................HAR 2021
Prerequisite: HAR 7576. Fundamentals of figure drawing. Working from models, students study the structure of the human form as seen in action, stationary and as part of the environment. A variety of media is used in rapid gesture drawing, long poses, memory work and portraiture. Class meets six hours a week. Three credits.

LIFE DRAWING II .................................HAR 6662
Prerequisite: HAR 2021. Advanced figure drawing. Working from models, students study the human figure as an expressive source for drawing as a work of art, as well as for future works of art in other media (painting, sculpture). Class meets six hours a week. Three credits.

DRAWING I ........................................HAR 7576
Introductory course with emphasis on the development of fundamental drawing skills, increased power of observation and an awareness of the personally expressive and compositional aspects of drawing. Class meets six hours a week. Three credits.

DRAWING II .......................................HAR 3033
Prerequisite: HAR 7576. Concentration on figure drawing and freehand drawing with emphasis on the conceptual approach. Students will complete projects, including work from models, still life, set-ups and landscapes. A variety of media will be explored. Class meets six hours a week. Three credits.

PAINTING I .........................................HAR 5004
Emphasis on developing visual perception. Still life, landscape and human form studied through a variety of media. Concentration on awareness of creative responsibility and expression. Class meets six hours a week. Three credits.

PAINTING II .......................................HAR 6011
Prerequisite: HAR 5004. Awareness of historical and contemporary painting. Advanced painting with emphasis on personal direction and the development of a consistent body of work. Class meets six hours a week. Three credits.

STUDIO WORKSHOP ...............................HAR 6879
Prerequisites: HAR 5004 or HAR 7576 and permission of instructor. Emphasis will be on individual studio activity in painting or drawing. Course content to be determined by the student under supervision of a faculty member. Three credits.

INTRODUCTION TO PRINTMAKING ..........HAR 3564
Introduction to a variety of traditional and contemporary printmaking processes, including on- and off- the-press techniques. Class meets six hours a week. Three credits.

SILKSCREEN .........................................HAR 4028
An exploration of silkscreen techniques ranging from the use of simple paper stencils to photographic processes. Class meets six hours a week. Three credits.

RAKU CERAMICS .................................HAR 7666
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 manipulation of form. Class meets six hours a week. Three credits.
CERAMICS I .................................. HAR 6193
A basic course in wheel-throwing techniques. Studio experiences acquaint the students with firing and glazing techniques. Optional techniques include hand-building, stacking and other kiln-firing procedures, as well as other methods of surface enrichment in decorative research. Class meets six hours a week. Three credits.

CERAMICS II ................................. HAR 2211
Prerequisite: HAR 6193 or by permission. Course deals with more advanced methods of research with studio experiences in pottery wheel techniques and glaze research. Class meets six hours a week. Three credits.

SILVERSMITHING ............................ HAR 1620
Course in basic metalsmithing techniques of casting and constructing brass, copper and silver with the utilization of buffing, sawing, filing and soldering processes. Class meets six hours a week. Three credits.

SILVERSMITHING II ........................ HAR 4638
Prerequisite: HAR 1620. Advanced metalsmithing techniques of casting, constructing and etching, utilizing copper, brass, bronze, silver and other metals. Class meets six hours a week. Three credits.

SCULPTURE I .................................. HAR 2089
Course designed to study and explore natural and synthetic sculptural forms and to help the student create a unique, personal body of work through a variety of traditional or contemporary media and techniques. Class meets six hours a week. Three credits.

SCULPTURE II .................................. HAR 3094
Prerequisite: HAR 2089 or by permission. Continuation of Sculpture I (HAR 2089). Focus on advanced methods and techniques. Emphasis on sculptural materials and forms. Class meets six hours a week. Three credits.

WEAVING I .................................... HAR 1192
Introductory weaving course. Techniques ranging from macrame through more complex procedures involving the use of large floor looms and the creation of three-dimensional woven forms. Class meets six hours a week. Three credits.

WEAVING II .................................... HAR 4020
Prerequisite: HAR 1192. Advanced problems in structural weaving. Multi-harness, draft analysis, comprehensive research. Notebook required. Class meets six hours a week. Three credits.

SMALL LOOM TECHNIQUES ............... HAR 1866
A study of the art of textile construction methods. Course work will deal with fiber properties, spinning and dyeing, single element construction (wrapping, coiling, netting, looping, crocheting), double element construction (braiding, knotting, weaving with a frame, cards, weighted warp or shaped board). Class meets six hours a week. Three credits.

BIOMEDICAL EQUIPMENT TECHNOLOGY

BIOMEDICAL EQUIPMENT TECHNOLOGY I ........... EMT 6824
Prerequisites: NLS 6186, EET 7604, EET 7643 or concurrent enrollment. Students will examine in detail the special electronic circuits used in biomedical equipment. Introduction to the use of electronics in the health care field. Class meets for two hours lecture and three hours lab each week. Fall, three credits.

BIOMEDICAL EQUIPMENT TECHNOLOGY II .......... EMT 9824
Prerequisite: EMT 6824. Students will examine and work on actual biomedical equipment used in major hospitals. Specific repair and maintenance problems will be discussed. The problems facing the biomedical equipment technician, not related to electronics, will be discussed. Class meets for two hours of lecture and three hours of laboratory each week. Spring, three credits.

BIOMEDICAL ELECTRICAL SAFETY ............ EMT 4504
Prerequisite: EET 4289. A study of microshock and associated problems, testing procedures and practices, and safety standards. Class meets two hours a week. Two credits.

BIOMEDICAL INTERNSHIP .................... EMT 4505
Prerequisite: EMT 6824 (Biomedical Equipment Technology I). Corequisite: EMT 9824 (Biomedical Equipment Technology II). Six hours each week will be spent in an assigned hospital or related position. Learning will be
under actual working conditions on actual equipment students will work on when permanently employed. The biomedical department of the institution, in cooperation with the biomedical program coordinator, will evaluate and supervise. One hour lecture, six hours intern each week. Three credits.

BUSINESS

INTRODUCTION TO BUSINESS ......... BUS 4282
The nature and scope of business, its component parts and how business is organized and managed; responsibility of business, government and consumers for improving the environment; multinational character of business; external and internal forces that constitute the business and economic system. Class meets three hours a week. Three credits.

PERSONAL FINANCE ................. BUS 2259
Understanding the role consumers play in the American economic system in the production of goods and services and an understanding of the American economic system. Techniques of money management and the preparation of a spending plan. Use of consumer credit and computing cost computations in using credit; necessary understanding of procedures and costs in buying and selling owner-occupied real estate; understanding calculation of interest on savings accounts and time deposits and the concept of compound interest; insurance — life, automobile, property, medical and disability; general estate and annuity planning; common tax shelters; consumer protection from a consumer responsibility point of view; auto buying or leasing; food planning and shopping. Class meets three hours a week. Three credits.

BUSINESS LAW I ......................... BUS 1121
Basic principles of law that apply to business transactions in the present business environment and legal system. Material is related to Uniform Commercial Code and includes introduction to the study of law, crimes and torts, contracts, sales and commercial paper. Case studies are used. Class meets three hours a week. Three credits.

BUSINESS LAW II ......................... BUS 5134
Prerequisite: BUS 1121. Continuation of BUS 1121 (Business Law I). Includes agency and partnership, personal property, real property, secured transactions and corporations. Case studies are used. Class meets three hours a week. Three credits.

INTRO. TO ECONOMIC ISSUES .......... BUS 2004
Basic principles governing the economy are studied in the context of current social issues. Designed for students planning to take only a single course in economics and for those who want a nontechnical in-

roduction to the subject. Topics include resource allocation, income distribution, price determination, unemployment, inflation and international problems. Class meets three hours a week. Three credits.

ECONOMICS I .......................... BUS 2253
Fundamental problems of economics and contemporary approaches to them. Topics include the basic elements of supply and demand; prices, national income determinations; money and banking; monetary and fiscal policy. Class meets three hours a week. Three credits.

ECONOMICS II ......................... BUS 3093
Prerequisite: BUS 2253 or by permission. Continuation of BUS 2253 (Economics I) with emphasis on supply and demand, theory of the firm and market structures. Class meets three hours a week. Three credits.

MARKETING ......................... BUS 7007
Study of all marketing activities that direct the flow of goods and services from the producer to the ultimate consumer. Emphasis on the problems and policies of manufacturers, wholesalers and retailers in the distribution of goods and services. Class meets three hours a week. Three credits.

PERSONNEL MANAGEMENT .......... BUS 2341
Personnel functions as they relate to management philosophy in employee procurement, placement, training, retention, job evaluation, wage administration, performance rating and welfare services. Class meets three hours a week. Three credits.

PRINCIPLES OF MANAGEMENT .......... BUS 7822
This course presents the basic fundamentals of management aimed at the middle management level. Emphasis will be on the behavioral aspects of modern management, MBO/MBR, and the functions of planning, organizing, directing and control. Class meets three hours a week. Three credits.
PRINCIPLES OF SUPERVISION ........ BUS 5360
This course covers the various techniques of successful supervision of rank and file employees. Supervision means achieving desired results with the efforts of others and involves the planning, organizing and directing of non-management personnel. Class meets three hours a week. Three credits.

SAVINGS AND INVESTMENT .......... BUS 6038
Investment techniques and procedures to give a broad overview of savings and investment instruments and tools for general estate planning. Basic investment principles, risk and return, developing individual or family investment objectives, compound interest, capital gains and the taxation of capital gains, savings accounts, time deposits and other short- and long-term media, pension planning through tax-sheltered programs, Social Security and individual plans, financial analysis in making stock, bond and other security investments, real estate investments for both owner-occupied and non-owner occupied, and estate planning relating to legal requirements and tax planning. Tax shelters will be stressed. Class meets three hours a week. Three credits.

BUSINESS COMMUNICATIONS ....... BUS 1007
Prerequisite: Communications I. This course encompasses four basic areas: (1) reading skills, (2) listening skills, (3) verbal and nonverbal communications and (4) written communications including memos, letters and reports. Class meets three hours a week. Three credits.

PRINCIPLES OF REAL ESTATE ....... BUS 1039
Review and analysis of institutional environment facing the real estate business. Methods of analyzing real estate, financial procedures and operations with emphasis on management. Class meets three hours a week. Three credits.

REAL ESTATE SALES PROCEDURES .... BUS 1040
Establishing confidence with the prospect through the initial interview and qualifying; selecting and showing properties; recognizing buying signals and knowing when to close; how to overcome objections; presenting offers; appraisals; financing and follow-up. Class meets three hours a week. Three credits.

REAL ESTATE CONTRACTS ......... BUS 1065
An introduction to the categories and types of contracts and the application of the Statute of Frauds in the real estate profession. Class meets three hours a week. Three credits.

INTRO. TO WORLD FOOD PROBLEMS .... BUS 5002
The course examines factors influencing both the supply and demand for food throughout the world, focusing on population growth and nutritional requirements. It also considers how such natural resources as soil, energy and climate affect the world food situation; which alternative food sources are available and whether people will accept them; problems of food distribution; and the economic implications of a food shortage. Class meets two hours each week. Two credits.

GENERAL INSURANCE ............ BUS 1390
Designed primarily for students who have had no college course in insurance and risk. Covers basic terminology, principles and contracts and all lines of insurance, including life, health, property and casualty. Class meets three hours a week. Three credits.

KANSAS REAL ESTATE PRE-LICENSE INSTRUCTION ........ BUS 5027
Designed to prepare individuals to take the Kansas Real Estate Examination. The course is divided into two parts: a uniform portion dealing with general information about real estate and a statutory part covering Kansas license laws and rules and regulations. A review of real estate mathematics is included. Class meets three hours a week. Three credits.

COMMERCIAL ART

VISUAL COMMUNICATIONS I ........ HCA 1689
Prerequisite: Permission of coordinator. An exploration of the techniques and imagery used in symbolic visual communication, focusing on the conversion of verbal concepts into persuasive visual images. Studio assignments will deal with problems relating directly to social, industrial and commercial needs. Class meets eight hours a week. Four credits.

VISUAL COMMUNICATIONS II ....... HCA 9689
Prerequisite: HCA 1689. A continuation of Visual Communications I focusing on in-depth research and requiring the application of the student's total design capability to problems of professional scope and complexity. Class meets eight hours a week. Four credits.

VISUAL TECHNOLOGY I ............ HCA 4679
Prerequisite or corequisite: HCA 1861. A practical exploration of the materials, tools and processes required for graphic reproduction. Emphasis will be placed on the acquisition of skills relating to the production methods and techniques necessary for the preparation of camera-ready art. Class meets eight hours a week. Four credits.

VISUAL TECHNOLOGY II ........... HCA 6688
Prerequisite: HCA 4679. A continuation of Visual Technology I with additional practical experience in the production of camera-ready art. Requires the application of production skills to problems of professional scope and complexity. Class meets eight hours a week. Four credits.
COMMERCIAL ART FIELD STUDY .......... HCA 5691
Prerequisite: Permission of coordinator. Students work an average of 15 hours a week in an approved professional studio under instructional staff supervision. Emphasis is placed on an increased understanding of the kind and quality of work done in a professional environment. Class meets two hours a week. Three credits.

PREPARATION OF PORTFOLIO ......... HCA 7690
Prerequisite: Permission of coordinator. This course will focus on the selection and mounting of student work for inclusion in professional portfolios. Two- and three-dimensional examples will be included. Class meets four hours a week. Two credits.

LETTERING .......................... HCA 7205
A study of the evolution of the alphabet, the development of letter forms and of lettering techniques focusing on contemporary typographic design. Hand and transfer lettering as well as mechanically-produced letter forms will be explored. Class meets six hours a week. Three credits.

LAYOUT .............................. HCA 1861
Prerequisite: HAR 2880. Corequisite: HCA 7205. Introduction to advertising and editorial layout. Information and techniques necessary to the effective composition of verbal and visual messages designed for publication. Class meets six hours a week. Three credits.

BASIC REPRESENTATION I ........... HCA 6862
An introduction to basic pictorial representation as it is applied in commercial art. Emphasis is placed on the accurate rendering of objects using the tools, materials and techniques of the advertising artist and on the development of visual communications skills. Class meets six hours a week. Three credits.

BASIC REPRESENTATION II .......... HCA 5863
Prerequisite: HCA 6862. A continuation of Basic Representation I, emphasizing the analysis and rendering of more complex forms, as well as the application of additional and more sophisticated tools, equipment, materials and processes commonly used by the commercial artist. Class meets six hours a week. Three credits.

AIRBRUSH TECHNIQUES ............... HCA 8853
Prerequisite: HCA 6862. An introduction to basic airbrush techniques and materials and to their application in both fine and commercial art. Emphasis will be placed on commercial applications. Class meets six hours a week. Three credits.

COMMUNICATIONS

FUNDAMENTALS OF WRITING ......... COM 5035
Basic written communications. Emphasis on grammar, sentence structure, organization, idiomatic usage, spelling and vocabulary, leading to clear written composition. Class meets three hours a week. Three credits.

COMMUNICATIONS I ................. COM 6524
An introduction to writing, focusing on sentence style, paragraph development and essay format. Guided practice in developing form and content of clear and interesting composition. Class meets three hours a week. Three credits.

COMMUNICATIONS II ................. COM 1467
Prerequisite: COM 6524. Course emphasizes organization and development of expository essays, written in response to assigned readings. Related research projects. Class meets three hours a week. Three credits.

POETRY AND DRAMA ................. COM 4444
Prerequisite: COM 1467. Introduction to poetry and drama for insight and appreciation. Selected plays and poetry of all types and styles will be read. Class meets three hours a week. Three credits.

STUDIES IN THE NOVEL .............. COM 2779
Prerequisite: COM 1467. Introduction to novels from different countries and eras, emphasizing fictional techniques and themes. Students will read, discuss and write about the assigned novels. Class meets three hours a week. Three credits.

AMERICAN WRITERS ................. COM 5271
Prerequisite: COM 1467. Readings of complete works of selected American writers, with related writing projects. Course focuses on important works of the various writers and emphasizes the relationship between their lives and times to their art. Class meets three hours a week. Three credits.
ADVANCED COMPOSITION .......... COM 3694
Prerequisite: COM 1467. Further practice in effective writing for students who wish to continue their study beyond the two semesters of Communications I and II. Focus on the writing of expository and argumentative essays, study and practice in the selection of subjects, organization, methods and style. Class meets three hours a week. Three credits.

TECHNICAL WRITING .......... COM 1260
Prerequisite: COM 6524. Technical Writing emphasizes various methods of written communication relevant to manufacturing and engineering, including short reports, letters, abstracts, resumes and portfolios. Class meets three hours a week. Three credits.

CREATIVE WRITING .......... COM 2618
Prerequisite: COM 1467. Principles and practice in narrative writing, including the short story, novel, and play. Emphasis on planning and plotting. Consideration given to poetry and non-fiction, depending on the interests of the students. Examination of recommended models. Final projects are selected by students; manuscripts are submitted to professional editors for evaluation. Class meets three hours a week. Three credits.

CREATIVE WRITING WORKSHOP .......... COM 1695
Prerequisite: COM 2618. Advanced practice in writing the short story, novel, essay, article, play, poetry. For students with serious writing aspirations. All students are furnished with printed copies of manuscripts submitted and function as critics of one another's writing. Class meets three hours a week. Three credits.

WORLD MASTERPIECES .......... COM 6024
Prerequisite: COM 1467. Readings of complete works of selected Western World writers who have influenced Western literature and civilization. Course focuses on important works of various writers and traces their influence on later writers. Includes writing projects. Class meets three hours a week. Three credits.

THE SHAKESPEARE PLAYS .......... COM 5025
An introduction to the plays of Shakespeare through reading and viewing selected plays on television. Historical background of England will be examined. Three credits.

MASTERPIECES OF THE CINEMA .......... COM 1051
Prerequisite: COM 1467. Viewing and discussion of selected films, with emphasis on themes, genres and styles. In addition to viewing films provided by the College, students will also be required to attend selected films at local theaters. Related reading and writing assignments. Class meets three hours a week. Three credits.

CHILDREN'S LITERATURE .......... COM 1015
Prerequisite: COM 1467. An exploration of what is best and most exciting in children's literature, both past and present. Emphasis on children's needs, criteria used in selecting children's books, various types of children's literature and the most famous of children's authors and illustrators. Class meets three hours a week. Three credits.

ADOLESCENT LITERATURE .......... COM 2778
Prerequisite: COM 1467. An exploration of what is best and most exciting in adolescent literature, both past and present. Emphasis will be on needs and interests of the "young adults," criteria used in selecting books for them and various themes and styles of these selections. Class meets three hours a week. Three credits.

DATA PROCESSING

BUSINESS DATA PROCESSING .......... BDP 7135
Primarily a nontechnical course. Consideration of social and economic implications of computers in government and business. Students operate the keypunch and time-sharing terminal in learning to write and run simple computer programs. Class meets three hours a week. Three credits.

PROGRAMMING FUNDAMENTALS .......... BDP 6699
Prepares an individual for enrollment in any programming language course. Primarily a technical course. Keypunch and terminal usage are covered at an advanced level. Exposure to selected pieces of unit record equipment. Flowcharting and writing BASIC computer programming are stressed. Digital computer equipment is used to run the programs; data coding and numbering systems are covered. Class meets three hours a week. Laboratory by arrangement. Four credits.

TELEPROCESSING .......... BDP 7224
Prerequisite: BDP 6699. A form of information handling in which a data processing system utilizes communication equipment. Concerned with that part of the system external to the central computer. Class meets three hours a week. Fall, three credits.

COBOL I .......... BDP 4700
Prerequisite: BDP 6699. Use of COBOL programming language in solving typical problems. Emphasis on function and use of statements in the four divisions of ANSI COBOL. Computer used in compiling and executing the programs. Class meets three hours a week. Laboratory by arrangement. Four credits.

COBOL II .......... BDP 1702
Prerequisite: BDP 4700. Advanced COBOL programming techniques; use of ANSI COBOL to solve problems with data on a direct access device. Methods of building, maintaining and using files in a sequential,
random and indexed manner. Sort and Report Writer features are also studied. Computer used in compiling and executing programs. Class meets three hours a week. Laboratory by arrangement. Four credits.

FORTRAN ............... BDP 6703
Prerequisite: MTH 3001. Use of FORTRAN programming language in solving typical problems. Emphasis on the vocabulary and grammar of ANSI FORTRAN. Computer used in compiling and executing the programs. Class meets three hours a week. Laboratory by arrangement. Four credits.

ASSEMBLER LANGUAGE I .......... BDP 1698
Prerequisite: BDP 6699. Use of Assembler language in solving typical problems. Emphasis on the statements used in ALC. Computer used in compiling and executing the programs. Class meets three hours a week. Laboratory by arrangement. Fall, four credits.

ASSEMBLER LANGUAGE II ........ BDP 1684
Prerequisite: BDP 1698. Advanced features of Assembler language for IBM 370. Covers Macros, subprograms, table handling, the complete set of ALC instructions and the different methods of file access. Class meets three hours a week. Laboratory by arrangement. Spring, four credits.

OS/Vs JOB CONTROL LANGUAGE .... BDP 6005
Prerequisites: BDP 4700 (COBOL I) or BDP 1698 (ALC I) or equivalent work experience. Use of OS/Vs JCL with typical applications. Emphasis on Rules of Coding JCL, optimizing resources, overriding statements, use of symbolic parameters etc. Computer applications of JCL. Class meets three hours a week. Fall, three credits.

PL/1 .................. BDP 4701
Prerequisite: BDP 6699. Use of PL/1 language in solving typical problems. Emphasis on function and use of the various statements and procedures of PL/1. Computer used in compiling and executing the programs. Class meets three hours a week. Laboratory by arrangement. Four credits.

RPG II BEGINNING .............. BDP 7683
Prerequisite: BDP 6699. Use of various approaches to RPG II problem solving. Define, code, test, debug and document RPG II programs. Class meets three hours a week. Laboratory by arrangement. Spring, four credits.

RPG II ADVANCED .............. BDP 5832
Prerequisite: BDP 7683. Use of advanced features in the RPG II language. Study of disk file techniques, disk utilities, tables and array methodology. Sequential, indexed and direct access methods are covered. Computer used in compiling and executing programs. Class meets three hours a week. Laboratory by arrangement. Fall, four credits.

DATA FILE MANAGEMENT .......... BDP 1036
Prerequisite: BDP 1698, 4700, 7683, 6703 or equivalent work experience. Comprehensive coverage of data management techniques. Data items are discussed in relation to records, files and data bases. File organizations and access methods are discussed. Concepts are integrated into the development of an inquiry data base. Techniques and potential uses of data base systems in industry and business are also included. Class meets three hours a week. Spring, three credits.

INTRO. TO SYSTEM DESIGN AND ANALYSIS .... BDP 4551
Prerequisites: BDP 4700, 6703, 1698 or 7683. Basic philosophy and techniques in development and use of business information systems. Emphasis on the human elements and people involvement necessary in systems design and implementation. Addresses the use of specific technical approaches available in relation to information processing. Class meets three hours a week. Fall, three credits.

OPERATING SYSTEMS ............ BDP 6451
Prerequisite: BDP 1698 or concurrent enrollment. Basic concepts and principles of a digital computer operating system. Interrelationships between hardware and software, and how they are controlled, developed and illustrated through study of a typical digital computer system. Class meets three hours a week. Spring, three credits.

APPLICATION PROGRAMMING: APPLICATIONS .......... BDP 7300
Prerequisite: By permission. Corequisites: BDP 4700, 6703, 7683 or 1698. Computer operations 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. Hours by arrangement. Fall, three credits.
FUNDAMENTALS OF BASIC ...............BDP 4049
Primarily a technical course that gives individuals an understanding of the BASIC programming language. Keypunch and data coding are covered. Terminals are used to enter and debug programs in the BASIC language. Emphasis is on the micro computer. This course is not a substitute for BDP 6699 (Programming Fundamentals). Class meets three hours a week. Three credits.

APPLICATION PROGRAMMING: DATA PROCESSING TOPICS ...............BDP 6514
Prerequisite: By permission. Corequisites: BDP 4700, 6703, 7683 or 1698. 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. Hours by arrangement. Spring, three credits.

STATISTICS FOR RESEARCH AND MANAGEMENT ...............BDP 3009
Prerequisite: MTH 2084. Students study the statistical capabilities and operations of the Statistical Package for the Social Sciences programming language. Methods of coding data for input into the SPSS system will be introduced and applied. Computers used in compiling and executing programs. Class meets three hours a week. Laboratory by arrangement. Spring, four credits.

DENTAL ASSISTING

FUNDAMENTALS OF DENTISTRY I ......NDA 2041
Prerequisite: Admission to Dental Assisting Program. The student will be introduced to the functions of the dental health team and the scope of service of the dental assistant. Dental materials, advanced first aid, cardiopulmonary resuscitation will be covered. Class meets seven hours a week. Five credits.

FUNDAMENTALS OF DENTISTRY II ......NDA 1044
Prerequisite: NDA 2041. The student will be introduced to patient psychology with emphasis on maturation, emotion and personality, fundamentals of dental radiography, techniques of dental radiographs and the use of dental materials. Class meets six hours a week. Four credits.

FUNDAMENTALS OF DENTISTRY III ......NDA 2855
Prerequisite: NDA 1044 and 1052. The student will record and maintain accurate dental records, identify and describe dental diseases and learn concepts and perform techniques related to chairside assisting. Class meets six hour a week. Four credits.

FUNDAMENTALS OF DENTISTRY IV ......NDA 5048
Prerequisite: NDA 3045. The student will identify drugs associated with dental treatment, demonstrate usage, care and dosage of medicine with emphasis placed on the Dental Code of Ethics and apply the principles of business administration to the dental office. Class meets three hours a week. Three credits.

PRECLINICAL PRACTICE ..........NDA 1052
Prerequisite: NDA 1044. The student will participate in the orientation and identification of the various operative procedures, including chairside assisting, instrumentation and maintenance of equipment, with special study of the expanded functions governed by the Missouri Dental Practice Act. Class meets five hours a week. Four credits.

CLINICAL PRACTICE I ..........NDA 1047
Prerequisite: NDA 1044 and 1052. The student will adapt and successfully apply the knowledge and techniques acquired in the classroom to the clinical environment. Evaluations of all operative and specialty procedures will be made. Class meets ten hours a week by arrangement. Three credits.

CLINICAL PRACTICE II ..........NDA 6050
Prerequisite: NDA 1047. The student will receive advanced training in dental operative and specialty procedures including performance evaluations. Fifteen hours a week by arrangement. Five credits.

DENTAL HYGIENE

CLINICAL DENTAL HYGIENE I ......NDH 7252
Corequisites: NDH 2339, NPS 6634, NDH 7253. History, development, current status and future implications of dental hygiene profession. Introduction to dental hygiene techniques and instrumentation, patient evaluation, primary preventive treatment, auxiliary procedures and aseptic techniques. Class meets thirteen hours a week, including two hours of lecture and eleven hours of lab. Six credits. Prerequisite: Admission to the Dental Hygiene Program.
DEVELOPMENTAL DENTISTRY ......... NDH 7253
Corequisites: NDH 2339, NPS 6634, NDH 7252. Study of embryology, oral histology and dental morphology and occlusion. Description of normal and abnormal growth and development of the face, oral cavity and related structures. Identification and description of deciduous and permanent dentitions. Utilization of dental nomenclature in identification and classification of occlusion. Explanation of protective function and forms of teeth and supporting structures and description of dental anomalies. Class meets four hours a week, including three hours of lecture and one hour of lab. Three credits.

CLINICAL DENTAL HYGIENE II ......... NDH 7254
Prerequisites: NDH 7252, NDH 7253, NDH 2339, NPS 6634 with no grade below a "C." Corequisites: NDH 6266, NLS 6152, NLS 1144, NDH 7255, NDH 7256. Clinical application of dental hygiene techniques and instrumentation, oral physiotherapy, patient motivation and education techniques, diet analysis and counseling. Emergency procedures for medical and dental emergencies which may be encountered in the dental office. Class meets ten hours a week, including two hours of lecture and eight hours of clinic. Five credits.

PERIODONTICS ................ NDH 7255
Prerequisites: NDH 7252, NDH 7253, NDH 2339, NPS 6634 with no grade below a "C." Corequisites: NDH 6266, NLS 6152, NLS 1144, NDH 7254, NDH 7256. Description of the inflammation process and its relationship to the pathogenesis of periodontal disease. Recognition and identification of the various periodontal diseases, their etiology, signs and symptoms. Lecture only. Class meets one hour a week. One credit.

DENTAL HEALTH EDUCATION ......... NDH 7256
Prerequisites: NDH 7252, NDH 7253, NDH 2339, NPS 6634 with no grade below a "C." Corequisites: NLS 1144, NLS 6152, NDH 6266, NDH 7255, NDH 7254. A study of the principles of educational methods and their use in health education as they apply to both individual and group development, with particular attention to psychological, social and economic factors. Class meets two hours a week. Lab only. One credit.

CLINICAL DENTAL HYGIENE III .... NDH 7257
Prerequisites: NDH 7256, NDH 7252, NDH 7254, NDH 2339, NDH 6266, NDH 7253, NDH 7255, NLS 1144, NLS 6152, NPS 6634 and no grade below a "C." Corequisites: NDH 7258, 7259, 7260, 5250. Continued development of proficiency in clinical techniques including preparation and application of dental hygiene treatment plans and expanded functions. Class meets eighteen hours a week, including two hours of lecture and 16 hours of clinic. Seven credits.

PATHOLOGY AND PERIODONTOLOGY ......... NDH 7258
Prerequisites: NDH 7252, NDH 7254, NDH 2339, NDH 6266, NDH 7253, NDH 7256, NDH 7255, NLS 1144, NLS 6152, NPS 6634 and no grade below a "C." Corequisites: NDH 7257, 7259, 7260, 5250. Description of periodontal treatment and therapy with emphasis on root planing and soft tissue curettage. Basic pathological processes and identification of common oral conditions, their etiology and treatment. Class meets three hours a week. Lecture only. Three credits.

DENTAL THERAPEUTICS .............. NDH 7259
Prerequisites: NDH 7256, NDH 7252, NDH 7254, NDH 2339, NDH 6266, NDH 7253, NDH 7255, NLS 1144, NLS 6152, NPS 6634 and no grade below a "C." Corequisites: NDH 7258, 7257, 7260, 5250. An introduction to basic principles of drug actions, interactions, practical application and familiarization and appropriate selection of professional products. Although the course will emphasize dental-related therapeutics, it will also provide information related to drugs associated with common system disorders. Also included is the study of factors which are necessary to properly administer local anesthesia. Class meets three hours a week. Three hours of lecture (one hour of lab for eight weeks). Three credits.

COMMUNITY DENTAL HEALTH ......... NDH 7260
Prerequisites: NDH 7252, NDH 7254, NDH 2339, NDH 6266, NDH 7253, NDH 7256, NDH 7255, NLS 1144, NLS 6152, NPS 6634 and no grade below a "C." Corequisites: NDH 7257, 7258, 7259, 5250. Study of public health agencies and their functions, application of basic statistical procedures in critiquing scientific literature, identification of dental needs of people of different ages, socioeconomic backgrounds and mental and physical abilities, application of dental indices. Recognition of factors involved in planning dental health education programs within school systems. Field experience is included. Class meets four hours a week, including one hour of lecture and three hours of lab. Two credits.
CLINICAL DENTAL HYGIENE IV .... NDH 7261
Prerequisites: NDH 7252, NDH 7254, NDH 7257, NDH 2339, NDH 7253, NDH 7256, NDH 7260, NDH 7255, NDH 7258, NDH 7259, NDH 6266, NDH 5250, NLS 1144, NLS 6152, NPS 6634 and no course below a "C." Continued development of proficiency in clinical techniques and current procedural practices of the dental hygienist with emphasis on self evaluation. Principles of dental hygiene ethics and jurisprudence, methods of efficient dental office management and current dental hygiene issues are included. Class meets eighteen hours a week, including two hours of lecture and sixteen hours of clinic. Seven credits.

HEAD AND NECK ANATOMY ....... NDH 2339
Corequisites: NDH 7252, NDH 7253. Basic concepts of gross anatomy with detailed emphasis on the head and neck. Embryology of head and neck is included. Class meets five hours a week, including two hours of lecture and three hours of lab. Three credits.

DENTAL MATERIALS ............... NDH 5250
Prerequisites: NDH 7252, NDH 7254, NDH 7239, NDH 6266, NDH 7253, NDH 7256, NDH 7255, NLS 1144, NLS 6152, NPS 6634 and no grade below a "C." Corequisites: NDH 7257, 7258, 7259, 7260. Components of restorative, prosthetic and preventive materials utilized in dentistry with emphasis on manipulation and utilization. Expanded functions in the laboratory. Class meets four hours a week, including one hour of lecture and three hours of lab. Two credits.

DENTAL RADIOLOGY ............... NDH 6266
Prerequisites: NDH 7252, NDH 2339, NDH 7253, NPS 6634 and no grade below a "C." Corequisites: NDH 7254, NLS 6152, NLS 1144, NDH 7255, NDH 7256. Theory of exposing, processing, mounting and evaluating oral radiographs. Paralleling and bisected angle techniques. Emphasis on radiation protection for patient and operator. Class meets four hours a week, including one hour of lecture and three hours of lab. Two credits.

CLINICAL DENTAL HYGIENE IV .... NDH 5109
Prerequisite: NDH 7238. Corequisite: NDH 6027. Continued development of proficiency in clinical techniques including preparation and application of dental hygiene treatment plans and expanded functions. Class meets thirteen hours a week. Fall, five credits.

CLINICAL DENTAL HYGIENE V .... NDH 3101
Prerequisite: NDH 5109. Continued development of proficiency in clinical techniques and current procedural practices of the dental hygienist with emphasis on self evaluation. Principles of dental hygiene ethics and jurisprudence, and methods of efficient dental office management. Class meets twelve hours a week. Spring, six credits.

DRAFTING TECHNOLOGY

GRAPHIC COMMUNICATIONS ........... EDT 7674
Activities available for individual student interests whether experienced or inexperienced in drafting. Students may use this course for exploration or to determine aptitudes in the field of drafting with credits earned applicable to the drafting technology program. Two hours of laboratory a week per credit hour. One to seven credits.

TECHNICAL DRAFTING I ............. EDT 5810
Industrially structured to provide activities and experiences typical of those encountered by drafting technicians: applied and descriptive geometry, orthographic projection, sketching, lettering, U.S. and metric measurement, basic conventions and dimensioning, production drawings, detail, section, auxiliary and assembly. Class/lab meets ten hours a week. Fall, five credits.

TECHNICAL DRAFTING II .......... EDT 2811
Prerequisite: EDT 5810 or equivalent as determined by program coordinator. Continuation of Technical Drafting I with emphasis on developments, fasteners, precision dimensioning, tolerancing, specifications and manufacturing processes. Class/lab meets ten hours a week. Spring, five credits.

PICTORIAL DRAFTING .............. EDT 7812
Prerequisite: EDT 5810 or equivalent as determined by program coordinator. Theory and practical applications of three-dimensional pictorial views; axonometric, obliques and perspectives. Use of time-saving devices and applications, i.e., templates, proportional dividers, shading film, photo drafting. Class/lab meets four hours a week. Spring, two credits.
**REPROGRAPHICS I** .......................... EDT 1813
Prerequisite: EDT 5810 or concurrent enrollment.
Reproduction processes and techniques typically used by industry. Diazo-white printing, sepia intermediates, wash-off film. Practical applications of photodrafting, microfilming, metal plate making, electrostatic copy machines and scissor drafting. Class/lab meets four hours a week. Fall, two credits.

**REPROGRAPHICS II** .......................... EDT 4010
Prerequisite: EDT 1813 (Reprographics I) Advanced applications of photo reproduction used for engineering documentation; halftones, screening, overlays, "second originals" and product photography—use of 35 mm, view, industrial and process cameras. Class/lab meets four hours a week. Spring, two credits.

**ARCHITECTURAL DRAFTING** .......................... EDT 2915
Prerequisite: EDT 5810. Applications of architectural drawings used for commercial and industrial construction. Emphasis on techniques, terminologies and methods of construction. Class/lab meets six hours a week. Fall, three credits.

**INTERPRETING ARCHITECTURAL DRAWINGS** .......................... EDT 4011
A beginning course in the fundamentals of interpreting architectural type drawings (blueprints). Involves basic theory of engineering drawings and the use of actual plans for residential, commercial and industrial construction. Class/lab meets four hours a week. Fall, two credits.

**STRUCTURAL DRAFTING** .......................... EDT 1916
Prerequisite: EDT 2915. Emphasis on the development of drafting practice and knowledge required for drafting technicians working in structural fabrication shops or engineering and design firms. Terminologies, materials and structural systems for concrete and steel. Class/lab meets four hours a week. Spring, three credits.

**ELECTRICAL DRAFTING** .......................... EDT 5924
Prerequisites: EDT 5810 and 2811 or concurrent with 2811. Introduction to electrical drafting practices in such areas as signaling systems, lighting, power generation, transmission and distribution. Drawing activities oriented to those prescribed by local engineering and design firms. Terminologies, abbreviations, symbols, specifications, use of vendor catalogs. Class meets six hours a week. Spring, three credits.

**PROCESS PIPING I** .......................... EDT 4014
Prerequisites: EDT 5810 and 7812 or equivalent as determined by program coordinator. Introduction to the drawings required in fabrication and erection of process piping systems. Emphasis on symbols, terminologies, specifications, types of valves and fittings. Practical applications of floor plans, shop drawings, isometric spool drawings, dimensioning and material lists. Class/lab meets six hours a week. Fall, three credits.

**TECHNICAL ILLUSTRATION** .......................... EDT 2297
Application of techniques used by technical illustrators. Conversion of engineering drawings to three-dimensional isometric, dimetric, trimetric and perspective views using various drawing media and graphic aids. Training in the use of technical illustration equipment and photoeducation process. Class/lab meets six hours a week. Fall, three credits.

**TOOL DESIGN** .......................... EDT 7407
Prerequisite: EGR 1243. Problems in the design, construction and operation of dies, jigs and fixtures. Six hours of laboratory a week. Three credits.

**INTERPRETATION OF WELDING DRAWINGS** .......................... EDT 6016
The study of symbols, abbreviations, sectioning and dimensioning as they apply to welding drawings. Sketching and the use of reference materials are included in the course. Class/lab meets four hours a week. Fall, two credits.

**INTERPRETING MACHINE DRAWINGS** .......................... EDT 4012
A basic course designed to provide a practical knowledge in reading machine drawings from actual blueprints. Involves the fundamentals of sketching, orthographic projection, dimensioning, standard symbols and sections as they apply to machine drawings. Class/lab meets four hours a week. Spring, two credits.

**BUILDING CONSTRUCTION ESTIMATING** .......................... EDT 1229
Introduction to the basic and fundamental principles of taking off quantities of building materials as required by the building construction contractor using working drawings, reference books and tables to perform estimates. Class meets three hours a week. Spring, three credits.

**CARTOGRAPHY AND LAND SURVEYING** .......................... EDT 4015
Prerequisites: MTH 2942 or MTH 2594 and EDT 5810 or permission of coordinator. Introduction to basic applications of map drafting and methods of land surveying typically used by engineering firms. Includes profiles, map plotting and layout from notes, operation and care of equipment, record keeping and field problems. Class meets six hours a week. Spring, three credits.
ELECTRONICS TECHNOLOGY

INTRODUCTORY ELECTRONICS ........ EET 5290
Familiarization with laboratory instruments, circuit components and basic measurement techniques. Introduction to basic circuits. One hour of class and six hours of laboratory a week. Three credits.

RESISTIVE CIRCUITS ............... EET 2322
Prerequisites: EET 5290 or concurrent enrollment and MTH 9000 or concurrent enrollment or equivalent. Fundamental AC and DC circuit concepts—such as Kirchhoff’s Laws, Ohm’s Law, Thevenin’s Theorem—as they apply to resistive circuits. Two hours of class and three hours of laboratory a week. Three credits.

CAPACITIVE AND INDUCTIVE CIRCUITS ........ EET 5056
Prerequisites: EET 2322 and MTH 9001 or concurrent enrollment in MTH 9001 or equivalent. Capacitors and inductors are introduced as circuit elements. AC circuit analysis using complex algebra. Two hours of class and three hours of laboratory a week. Spring, three credits.

NETWORK ANALYSIS .................. EET 1255
Prerequisites: EET 5056 and MTH 9001 or equivalent. Application of mathematical techniques to the analysis of complex electrical circuits or networks. Class meets three hours a week. Fall, three credits.

RESISTIVE ELECTRONICS ............ EET 4289
Prerequisites: EET 5290, MTH 9000 and EET 2322 or equivalent. Resistive circuits in which electronic devices are employed. Introduction to volt-ampere characteristics and physics of diodes, transistors and practical circuits using these devices. Two hours of class and three hours of laboratory a week. Spring, three credits.

LINEAR ELECTRONICS .............. EET 7604
Prerequisites: EET 4289 and 5056. Electronic circuits operating under linear or small signal conditions. Covers wide band amplifiers, power amplifiers and field effect transistors. Two hours of class and three hours of laboratory a week. Fall, three credits.

NONLINEAR ELECTRONICS .......... EET 7490
Prerequisite: EET 7604. Analysis of transistor circuitry. Integrated circuits, feedback, oscillators, modulation, frequency effects and voltage regulators. Two hours of class and three hours of laboratory a week. Three credits.

SYSTEMS ANALYSIS .................. EET 7535
Prerequisites: EET 7604 and 1255. Electronic systems including communications, telemetry and controls.

Two hours of class and three hours of laboratory a week. Spring, three credits.

BASIC ELECTRONIC COMMUNICATIONS ................. EET 7039
Prerequisite: EET 5290. Theory of operation of the building blocks of a communications system. Includes devices such as the transistor, circuits, such as oscillators and amplifiers; and terms such as AM and FM. Two hours of class and three hours of laboratory a week. Spring, three credits.

ELECTRONIC COMMUNICATION SYSTEMS ................. EET 2468
Prerequisite: EET 7039 or concurrent enrollment in EET 7490. Theory of electronic communication systems, including AM and FM radio receivers and transmitters, antennas, broadcast stations, television and microwave. Three hours of class a week. Spring, three credits.

ADVANCED COMMUNICATION SYSTEMS ................. EET 1179
Prerequisite: EET 7604. Principles and problems involved in communications. Includes antennas, transmission lines, receiver design and transmitter principles. Two hours of class and three hours of laboratory a week. Spring, three credits.

ALIGNMENT TECHNIQUES .............. EET 2100
Prerequisites: EET 7039 and concurrent enrollment in EET 2468. Service and alignment of radio frequency equipment, black and white television, color television, AM and FM radios, and transmitters. One hour of class and six hours of laboratory a week. Fall, three credits.

MEASUREMENTS AND INSTRUMENTATION ................. EET 2367
Prerequisite: EET 5290. Techniques and equipment used in industrial control and precision-measuring situations. Two hours of class and three hours of laboratory a week. Fall, three credits.

SYSTEMS MAINTENANCE ............... EET 3557
Prerequisites: EET 2468, 2367 or 7604. Principles of fault location and correction. Techniques applied to communications equipment. Two hours of class and three hours of laboratory a week. Spring, three credits.

DIGITAL ELECTRONICS ............... EET 7643
Prerequisite: EET 4289 or by permission. Introduction to the principles and application of digital electronics. Study of the basic digital devices, such as gates, counters, latches, adders. D/A converters, registers and ROMS. Two hours of class and three hours of laboratory a week. Fall, three credits.
MICROPROCESSORS ................. EET 4503  
Prerequisite: EET 7643 (Digital Electronics). Introduction to the microprocessor and to microprocessor architecture. An overview of microprocessor programming and applications. Emphasis on laboratory experience with the microprocessor. Two hours of lecture and three hours of lab each week. Three credits.

BASIC CONTROL SYSTEMS ........ EET 6034  
Prerequisite: EET 5290. Theory and application of electromagnetic, electromechanical and other transducers and associated circuitry in basic control systems. Two hours of class and three hours of laboratory a week. Spring, three credits.

BASIC COMPUTER COMPONENTS .... EET 4065  
Prerequisite: EET 7643. Review of basic digital principles as applied to computers. Introduction to computer architecture and machine language programming. Introduction to the data base concept. Class meets three hours a week. Spring, three credits.

AVIONICS ......................... EET 7194  
Introduction to aircraft electrical systems and airborne avionics equipment. Class meets three hours a week. Three credits.

EMERGENCY MEDICAL TECHNOLOGY

EMERGENCY MEDICAL TECHNICIAN  . NET 6441  
Classroom instruction includes basic anatomy and physiology and patient assessment and treatment of medical and trauma-related conditions. Practical skills such as CPR are taught in lab sessions. In addition, students will have ten hours of in-hospital observation. Students successfully completing this course will meet the prerequisite for taking the EMT-A registry exams. Five credits.

CPR I—BASIC RESCUEr .............. NET 2140  
Overview of the cardiovascular and respiratory systems. Techniques of one-person, two-person and infant CPR, and management of an airway obstruction are taught. Upon successful completion of this course, the student will be certified by the American Heart Association as a Basic Rescuer. Class meets two hours a week for eight weeks. One credit.

CPR II—BASIC CPR INSTRUCTOR .... NET 2141  
Prerequisite: NET 2140 or current Basic Rescuer certification by the American Heart Association. Review of techniques taught in CPR I. Methodology of teaching. Designing and implementing CPR courses. Demonstration of mastery performance and mini-lectures. Upon successful completion of this course, the student will be certified by the American Heart Association as a Basic CPR Instructor. Class meets two hours a week for eight weeks. One credit.

BASIC CARDIOLOGY AND EKG RECOGNITION .......................... NET 2142  
Prerequisite: Consent of the program coordinator. Basic anatomy and physiology and electrophysiology of the cardiac system. Introduction to EKG monitoring equipment. Provides students with the ability to recognize normal and abnormal EKG tracings. Overview of coronary artery disease and pharmacological intervention is reviewed. Class meets two hours a week. Class limited to 30. Two credits.

ENGINEERING

ENGINEERING GRAPHICS I ........ EGR 1243  
Principles of graphics and design processes. Practical problems relating to interpretation of drawings, interrelation of points, lines and planes, intersections and developments, graphical solutions by charts and graphs, orthographic projection. Use of instruments and lettering. Emphasis on visualization. Class meets six hours a week. Three credits.

ENGINEERING GRAPHICS II ........ EGR 2276  
Advanced study and application of detail and assembly drawings, dimensioning, auxiliary views, sectioning and developments. Additional emphasis on creative design processes and visualization. Class meets six hours a week. Three credits.

INDUSTRIAL SCIENCE I ............. EGR 5269  
Prerequisite: MTH 4354 or 2942 or equivalent. Introduction to principles of mechanics, work, power and energy. Class meets three hours a week. Three credits.

INDUSTRIAL SCIENCE II ............ EGR 3315  
Prerequisite: MTH 5387 or 9004 or equivalent. Introduction to the mechanical and thermal properties of matter, sound and light. Class meets three hours a week. Three credits.
EQUINE STUDIES

STABLE MANAGEMENT ..................... SES 1216
Survey of methods in caring for horses. Feeding, grooming, barn sanitation and upkeep will be emphasized. Two hours of classroom instruction and two hours of practical exercises in the stable a week. Three credits.

BASIC HORSE TRAINING .................... SES 2352
This course covers halter breaking, leading, handling, bitting, lounjing, saddling and bridling, methods of restraint, and actual riding of young horses. Class meets four hours a week. Two credits.

ADVANCED HORSE TRAINING ................. SES 3784
Prerequisite: SES 2352. A continuation of Basic Horse Training with emphasis on systems of training horses for specialized events. Areas to be covered are English and Western Pleasure, Hunters, first and second level dressage, Working Cowhorse and speed event. Class meets four hours a week. Two credits.

EQUINE ANATOMY AND PHYSIOLOGY .............. SES 2335
A study of the structure and development of the circulatory, nervous, skeletal, muscular, digestive and respiratory systems of equines. Class meets four hours a week. Four credits.

ENGLISH EQUITATION ....................... SES 1880
An introduction to English equitation. Position of rider, control of horse and basic movements will be stressed on a beginning to intermediate level. Hard hats and boots are required. Four hours of riding a week. Two credits.

INTERMEDIATE ENGLISH EQUITATION ............ SES 4140
A continuation of SES 1880 (English Equitation) with emphasis on development of intermediate skill level in riding and showing. Four contact hours. Two credits.
ADVANCED ENGLISH EQUITATION ..... SES 3762
Prerequisites: SES 1880 and 4140 or permission of instructor. A continuation of English Equitation with emphasis on development of advanced skill level in riding and showing. Class meets four hours a week. Two credits.

WESTERN EQUITATION .......... SES 1395
An introduction to Western equitation. Position of the rider, control of horse and basic movements will be stressed on a beginning to intermediate level. Four hours of riding a week. Two credits.

INTERMEDIATE WESTERN EQUITATION .......... SES 4139
A continuation of SES 1395 (Western Equitation) with emphasis upon development of intermediate skill level in riding and showing. Four contact hours. Two credits.

ADVANCED WESTERN EQUITATION ..... SES 2430
Prerequisite: SES 1395 and 4139 or permission of the instructor. A continuation of Western Equitation with emphasis on development of advanced skill level in riding and showing. Four hours of riding a week. Two credits.

EQUINE JUDGING .......... SES 1308
Equine selection, class placings and evaluation techniques are primary topics covered. Class meets four hours a week. Two credits.

EQUINE NUTRITION .......... SES 1350
A study of the digestive system, classes of feeds, feeding requirements, composition of feeds, systems of feeding, commercial feeds and supplements, and vitamin, mineral and water requirements of the horse. Class meets four hours a week. Four credits.

TECHNIQUES OF RIDING INSTRUCTION I .......... SES 1184
Prerequisite: SES 1880 or SES 1395. Designed for students who intend to specialize in riding instruction. Practical demonstration of teaching methods, skill development and oral presentations. Class meets four hours a week. Three credits.

TECHNIQUES OF RIDING INSTRUCTION II .......... SES 1237
Prerequisite: SES 1184. Planning camp programs and public lessons with emphasis on safety as a primary factor. Rider problems and maintenance of the school horse are taken into special consideration along with practice in planning and teaching elementary and intermediate level riding. Class meets four hours a week. Three credits.

EQUINE SHOWMANSHIP .. SEES 1103
Prerequisite: SES 1880 or SES 1395. Showmanship and equine skills. Proper turn-out of horse and rider is emphasized. Class meets four hours a week. Two credits.

BASIC HORSESHOEING .......... SES 1156
Horseshoeing skills, pulling shoes, trimming hooves, preparing feet and driving nails are practiced. Corrective shoeing techniques. Hot and cold shoeing. Basic foot anatomy. Class meets six hours a week. Three credits.

EQUINE BREEDING AND MANAGEMENT .......... SES 3029
Anatomy, reproductive physiology, genetics, breeding diseases, congenital and hereditary problems, selection and management of breeding stock. Class/lab meets five hours a week. Four credits.

EQUINE HEALTH, DISEASE AND DISORDERS ....

BASIC DRESSAGE .......... SES 4141
Instruction in the classical form of riding and training horses known as dressage. Covers terminology, equitation and rules for competition. Class meets four hours a week. Two credits.

ADVANCED EQUITATION PROJECT ..... SES 3489
Student is given the opportunity to develop an individual project under the direct supervision of Equine Studies instructors. Equitation projects are intended to develop skills not fostered by the standard course offerings. Projects must have clearly stated performance objectives and be approved by the program coordinator. Class meets four hours a week. Two credits.
FASHION MERCHANDISING

FASHION FUNDAMENTALS I ........ BFM 7013
The total concept of fashion—what makes it, changes it and sells it. Covers the fashion industry from the designer to the manufacturer to the distributor. Concludes with consumer and merchandising trends within the industry. Class meets three hours a week. Fall, three credits.

FASHION FUNDAMENTALS II .......... BFM 1019
Prerequisite: BFM 7013 or by permission. Technical aspects of merchandising, personnel policies, principles of management, role of the buyer, buying principles and merchandising mathematics. Class meets three hours a week. Fall, three credits.

TEXTILES .................. BFM 1195
Natural and synthetic textile fibers, weaves, finishes and their comparative characteristics. Emphasis on selling techniques, care and use of textiles. Class meets three hours a week. Three credits.

HISTORY OF DRESS ............... BFM 2568
Historical evolution of dress in the Western World from Egypt to 1980. The fashion cycle and the elements that affect it: economic, political, social and technological advancements. Class meets three hours a week. Spring, three credits.

FASHION DISPLAY ................ BFM 1054
Practical exercises in the visual merchandising of fashion products. Creating effective interior and window displays using appropriate materials, colors, lighting and signs. Class meets three hours a week. Fall, three credits.

FASHION ILLUSTRATION I ......... BFM 5294
Application of basic sketching techniques to the human figure and clothing designs for the development of newspaper and magazine advertising. Class meets three hours a week. Three credits.

FASHION ILLUSTRATION II ........ BFM 1926
Prerequisite: BFM 5294 or approval of instructor. An in-depth study of fashion illustration as a visual selling technique. Strong emphasis on developing an individual style resulting in an attractive portfolio geared to the career objectives of the individual student. Class meets three hours a week. Spring, three credits.

FASHION PROMOTION .............. BFM 4655
Planning and implementing activities to influence the sale of merchandise, services or ideas through publicity, special events, fashion shows, personal selling, advertising and display. Students will do the planning necessary for a successful fashion show such as choosing themes, merchandise, location, music and commentary. Class meets three hours a week. Spring, three credits.

FASHION IN SOCIETY ........... BFM 3046
A study of the interrelationship of the psychological, economic and sociological aspects of clothing. Relates wardrobe management and artistic expression to personal clothing choices and the cultural interpretation of clothing symbolism within various cultures. Class meets three hours a week. Three credits.

INTERIOR DESIGN I ............ BFM 5149
A basic course in interior design emphasizing the elements and principles of design for practical application in today's home. Design is creative and productive, so the class will offer not only knowledge but use. Actual materials will be used in the development of numerous interior design projects while relating them to scaled furniture arrangements. Class meets three hours a week. Three credits.

INTERIOR DESIGN II .......... BFM 2925
Prerequisite: BFM 5149 or by permission. This course enables students with basic interior design fundamentals to increase their knowledge and practical application of interior design elements. Class meets three hours a week. Three credits.

MERCHANDISE EVALUATION .... BFM 3503
Evaluation of textile and nontextile products, ranging from lingerie to handbags, crystal to china. Student will gain understanding in chosen classification by preparing product manual and conducting a simulated departmental meeting to train staff in selling that merchandise. Class meets three hours a week. Spring, three credits.
FASHION SEMINAR: HUMAN RELATIONS

Prerequisite: Admission to the Fashion Merchandising Program. Work experience in an approved training situation under instructional supervision. Emphasizes employee-employer-customer relations, job applications, interviews, job orientation and sources of product information. Class meets two hours a week with a minimum of fifteen hours a week on-the-job training by arrangement. Fall, three credits.

FASHION SEMINAR: SUPERVISORY DEVELOPMENT

Prerequisite: Admission to the Fashion Merchandising Program. Work experience in an approved training situation under instructional supervision. Designed to develop competency in modern techniques of effective supervisory practices in business. Getting ideas across, obtaining teamwork, determining goals, assessing productivity, techniques of getting results through group effort and key problems in supervision. A minimum of 15 hours on-the-job training a week by arrangement. Class meets two hours a week. Spring, three credits.

FASHION SEMINAR: CAREER OPTIONS

Prerequisite: Admission to the Fashion Merchandising Program. Work experience in an approved training situation under instructional supervision. Emphasis on developing career goals by exploring many career options in fashion. Class meets two hours a week. A minimum of 15 hours on-the-job training a week by arrangement. Fall, three credits.

FASHION SEMINAR: MARKET RESEARCH

Prerequisite: Admission to the Fashion Merchandising Program. Work experience in an approved training situation under instructional supervision. Emphasis on marketing research and problem-solving techniques. Simple statistical measurements, their use and application to specific business problems. Class meets two hours a week. A minimum of 15 hours on-the-job training a week by arrangement. Spring, three credits.

FUNDAMENTALS OF FIRE PREVENTION

Organization and function of fire prevention; inspections, surveying and mapping procedures; recognition of fire and life hazards; engineering a solution of a fire hazard; enforcing the solution of a fire hazard; and public relations as affected by fire prevention. Class meets three hours a week. Three credits.

FIRE HYDRAULICS

Review of applied mathematics, hydraulics laws as applied to the fire service and application of formulas and mental calculation to hydraulics and water supply problems. Class meets three hours a week. Three credits.

FIRE HYDRAULICS LABORATORY

Prerequisite: EFS 1748 (Fire Hydraulics) or concurrent enrollment. Experimentation and application of hydraulic laws, formulas and mental calculation of hydraulic and water supply problems. National and state certification standards related to water flow, and water supply and motor pump operation. Class meets three hours a week. One credit.

FIRE COMPANY ORGANIZATION AND MANAGEMENT

Review of fire department organization, planning, organizing, and supervising to meet the needs of the fire department, with emphasis on the company officer's role. Class meets three hours a week. Three credits.

BUILDING CONSTRUCTION FOR FIRE PROTECTION

Fundamentals of building construction as they relate to fire protection. Classification by occupancy and types of construction with emphasis on fire protection features including building equipment, facilities, fire resistive materials and high-rise considerations. Class meets three hours a week. Three credits.
HAZARDOUS MATERIALS I ............ EFS 2742
An introduction to basic fire chemistry and physics. Problems of flammability as encountered by fire fighters when dealing with fuels and oxidizers. Elementary fire fighting practices pertaining to hazardous materials in storage and transit. Class meets three hours a week. Three credits.

FIRE APPARATUS AND EQUIPMENT ... EFS 3757
Fire apparatus design, specifications and performance capabilities; effective utilization of apparatus in fire service emergencies. Class meets three hours a week. Three credits.

FIRE INVESTIGATION .................. EFS 4750
Determining cause of fires (accidental, suspicious and incendiary); types of fires; related laws; introduction to arson and incendiarism; recognizing and preserving evidence; interviewing witnesses and suspects; arrest and detention procedures; court procedures; and giving court testimony. Class meets three hours a week. Three credits.

FIRE PROTECTION EQUIPMENT AND SYSTEMS ............ EFS 4751
A study of portable fire extinguishing equipment, protection systems for special hazards, sprinkler systems, fire detection and alarm systems. Class meets three hours a week. Three credits.

FIRE SERVICE COMMUNICATIONS SYSTEMS ....
........................................ EFS 4754
An introduction to the basic fire alarm operator's area of specialized knowledge, duties and performance objectives. A general course on the installation, operation and testing of fire alarm and communication systems. Operators and potential alarm operators. Class meets three hours a week. Three credits.

FIRE SERVICE RECORDS AND REPORTS ............ EFS 5746
Course designed for all members of the fire service in the use of typical records and report systems. Involves knowledge and understanding of fire department records systems, principles of report writing, applications in the area of prefire survey, postfire reporting, research and planning. Class meets three hours a week. Three credits.

FIRE TACTICS AND STRATEGY ............ EFS 5756
Principles of fire control through the utilization of manpower, equipment and extinguishing agents on the fireground. Class meets three hours a week. Three credits.

FIRE VEHICLE MAINTENANCE FOR OPERATORS AND MECHANICS ............ EFS 6747
A survey course in the fundamentals of all vehicle structure. Basic construction of the vehicles, including the main powering systems (fire pumps excluded), and techniques of maintenance. Class meets three hours a week. Three credits.

HAZARDOUS MATERIALS II ............ EFS 6749
A second-semester course in hazardous materials covering handling, identification and fire fighting practices involving explosive, toxic and radioactive materials in storage and transit. Class meets three hours a week. Three credits.

RELATED CODES AND ORDINANCES ....... EFS 6753
Familiarization and interpretation of national, state and local codes, ordinances and laws which influence the field of fire prevention. Class meets three hours a week. Three credits.

RESCUE PRACTICES ...................... EFS 6755
Rescue problems and techniques, emergency rescue equipment, toxic gases, chemicals and diseases, radiation hazards, care of victims, including emergency childbirth, respiration and resuscitation, extraction and other emergency conditions. Class meets three hours a week. Three credits.

SEMINAR: FIRE PROTECTION AND PUBLIC SAFETY ............ EFS 2415
Course consists of eight different units that require approximately 22 hours of instruction (including review and test). Each unit consists of a directed slide-tape presentation and a Student Performance Manual. Performance-based objectives are used for students at each unit's introduction. The time allotment for each unit depends on the amount of material to be covered by each topic area. One credit.
FOREIGN LANGUAGE

ELEMENTARY SPANISH I ..........CFL 3285
Basic course in Spanish language, including grammar study, conversation, composition and an introduction to the culture of Spanish-speaking countries. Class meets five hours a week. Five credits.

ELEMENTARY SPANISH II ..........CFL 1239
Prerequisite: CFL 3285 or one year of high school Spanish. Continuation of CFL 3285 (Elementary Spanish I). Graded reading selections added as basis for conversation and composition in the discussion periods. Class meets five hours a week. Five credits.

INTERMEDIATE SPANISH ..........CFL 7221
Prerequisite: CFL 1239 or two years of high school Spanish. A reading course to build vocabulary, further understanding of Hispanic culture and speaking fluency. Composition and conversation in Spanish. Grammar review. Class meets three hours a week. Three credits.

ADVANCED SPANISH .............CFL 6626
Prerequisite: CFL 7221 or three years of high school Spanish. Continuation of CFL 7221 (Intermediate Spanish) with extensive study of Hispanic literature. Advanced reading. Grammar review continues. Class meets three hours a week. Three credits.

ELEMENTARY FRENCH I ..........CFL 4570
Basic course in the French language includes vocabulary building, grammar study, conversation, and introduction to the French culture and civilization. Emphasis on the spoken language. Cassette tapes of all lessons in French are available for each student to take home. Class meets five hours a week. Five credits.

ELEMENTARY FRENCH II ..........CFL 2293
Prerequisite: CFL 4570 or one year of high school French. Continuation of CFL 4570 (Elementary French I) with graded reading selections to be used as basis for conversation. Cassette tapes of all lessons in French are available for each student to take home. Class meets five hours a week. Five credits.

CONVERSATIONAL FRENCH ..........CFL 2447
Prerequisite: CFL 2293 or two years of high school French. An intermediate course to build spontaneous speaking ability. Topics revolving around everyday life situations and current events are discussed in class. Class meets two hours a week. Two credits.

INTERMEDIATE FRENCH ..........CFL 1442
Prerequisite: CFL 2293 or two years of high school French. Intermediate reading course to build vocabulary, comprehension and increase the speaking ability acquired in Elementary French I and II. The reading of numerous newspaper articles from leading French magazines is integrated with a grammar review, conversation and composition in French. Class meets three hours a week. Three credits.

ADVANCED FRENCH .............CFL 5574
Prerequisite: CFL 1442 or three years of high school French. Continuation of CFL 1442 (Intermediate French). Advanced reading, with study of newspaper articles taken from "Match," "Elle," "L'Express." Complete grammar review. Conversation and composition in French. Class meets three hours a week. Three credits.

ELEMENTARY GERMAN I ..........CFL 3196
Presentation of the sounds, vocabulary and basic structural patterns of elementary German, with development of listening comprehension, speaking, reading and writing skills. Cultural material is integrated into all German courses. Class meets five hours a week. Five credits.

ELEMENTARY GERMAN II ..........CFL 6207
Prerequisite: CFL 3196 or one year of high school German. Continuation of CFL 3196 (Elementary German I) with further practice and development of listening comprehension, speaking, reading and writing skills. Class meets five hours a week. Five credits.

INTERMEDIATE GERMAN ..........CFL 3401
Prerequisite: CFL 6207 or two years of high school German. Vocabulary building and grammar review primarily through extensive reading of German texts, with additional practice in listening, speaking and writing. Class meets three hours a week. Three credits.

ADVANCED GERMAN ..........CFL 5199
Prerequisite: CFL 3401 or three years of high school German. Further expands the mastery of German vocabulary and structure through extensive reading of more advanced texts. Class meets three hours a week. Three credits.

BEGINNING CHINESE ..........CFL 2646
Introduction to the Chinese language known as "The Common Language" as spoken natively in the Peking area. Class meets five hours a week. Five credits.

BEGINNING JAPANESE ..........CFL 5783
Emphasis on the spoken language, its syntax and grammar. Short introduction to the Japanese syllabary, hiragana and some ideographs (Kanji). Includes, through language drills, an introduction to Japanese culture. Class meets five hours a week. Five credits.
GENERAL STUDIES

STUDY SKILLS MINI COURSE ............ LC 3003
Small group sessions to help develop study skills in
test taking; taking notes and using your textbook;
critical reading and memory recall; effective listening
and classroom strategies; and library and counseling
resources. Students will read and discuss basic infor-
mation. Practice exercises will be provided for use in
the General Studies Lab. Class meets one hour each
week. One credit.

ENGLISH AS A SECOND LANGUAGE .... LC 7032
Basic written communication for those whose native
language is not English. Emphasis on grammar,
sentence structure, organization, idiomatic usage,
spelling and vocabulary, leading to clear written and
oral communication. Class meets three hours a week.
Three credits.

INDIVIDUALIZED STUDIES

ALGEBRA PREPARATION .................. LC 8837
Diagnostic test results place a student at the
appropriate level in programmed materials dealing
with sets, counting numbers, integers, rational
numbers, equations involving two variables,
polynomials, factoring, quadratics and absolutes,
graphing, exponents and logarithms. Class meets by
arrangement. One credit.

CHEMISTRY PREPARATION ............ LC 1838
Diagnostic test results place a student at the
appropriate level in programmed materials, including
but not limited to valences, chemical equations,
solubility, ionic structures and complexes, the metric
system, the atomic theory, thermochemistry, kinetic
theory, nuclear structure and chemical equilibrium.
Class meets by arrangement. One credit.

ENGLISH GRAMMAR REVIEW ........ LC 4840
Diagnostic test results place a student at the
appropriate level in programmed materials dealing
with parts of speech, sentence structure, verb forms,
modifiers, pronoun choice, avoiding sentence
fragments and run-ons, punctuation and capitaliza-
tion. Class meets by arrangement. One credit.

READING COMPREHENSION ........... LC 8841
Individualized instruction in sequenced kits emphasizing
general comprehension skills through use of
survey technique and related vocabulary develop-
ment. Class meets by arrangement. One credit.

READING RATE .................... LC 6833
Students work toward increased reading rate by
adapting materials of their choice to use with reading
pacers. Skimming and scanning techniques also are
used. Class meets by arrangement. One credit.

SPELLING IMPROVEMENT ............ LC 1834
Through systems of tapes, kits or programmed texts,
students learn to correct specific kinds of spelling
errors. Class meets by arrangement. One credit.

VOCABULARY DEVELOPMENT .......... LC 6835
Students work toward improved vocabulary by con-
centrating on techniques of unlocking meaning
through context clues and knowledge of roots,
prefixes and suffixes. Class meets by arrangement.
One credit.

BASIC MATH REVIEW ................. LC 4836
Diagnostic test results place a student at the
appropriate level in programmed materials dealing
with addition, subtraction, multiplication, division,
fractions, decimals and percents. Class meets by
arrangement. One credit.

STUDY SKILLS ....................... LC 6839
Diagnostic test results place a student at the
appropriate level in books and taped programs dealing
with previewing study-type reading, notetaking while
reading, listening and taking class notes, preparing for
and taking examinations, planning time and physical
setting. Class meets by arrangement. One credit.

INDIVIDUALIZED STUDY ............ LC 7606
Individualized instruction in areas of special need and
interest prescribed on the basis of diagnostic evalu-
ation. Programs of study are tailored to abilities, learn-
ing style, interests and degree of self-discipline.
Students proceed at own pace and level on self-
motivating materials and projects. Areas of study in-
clude reading rate and comprehension, study skills,
communications, mathematics, spelling and
vocabulary. Three credits.

INDIVIDUALIZED STUDY ............. LC 4466
One credit.

INDIVIDUALIZED STUDY ............. LC 5549
Two credits.

HEARING IMPAIRED

BASIC ENGLISH FOR HEARING IMPAIRED PER-
SONS (HIP) ...................... COM 6133
Basic skills in written communications, including
sentence structure, the system of language, its
characteristics and functions. Emphasis on
vocabulary and the effect of words. Class meets five
hours a week. Three credits.

BASIC ENGLISH FOR HIP II ........ COM 7488
Prerequisite: COM 6133. Continuation of COM 6133
(Basic English I). Emphasis on grammar, organization,
idiomatic usage, spelling and vocabulary, leading to
clear written composition. Class meets five hours a week. Three credits.

**BASIC ENGLISH FOR HIV III ........... COM 5030**
Prerequisite: COM 7488. Practice in expression through written compositions. Emphasis on organization, clarity of expression and style. Class meets five hours a week. Three credits.

**BASIC MANUAL COMMUNICATIONS .... LC 7029**
Basic American sign language used to communicate with deaf adults. Subject material related to language, psychological and social aspects of the deaf person. Class meets three hours a week. Three credits.

**LAB FOR BASIC MANUAL COMMUNICATIONS ................... LC 1818**
A laboratory to aid the student with Basic Manual Communications. Provides opportunity to practice the signs taught in the basic course with both deaf and hearing students. Class meets by arrangement. One credit.

**INTERMEDIATE MANUAL COMMUNICATIONS .............. LC 4488**
Prerequisite: LC 7029. A study in American sign language and a continuation of LC 7029. A continuation of new signs with an emphasis on body language and expression. Class meets three hours a week. Three credits.

**SPEECH THERAPY .................... LC 6815**
The individualized speech therapy program is designed to meet the student's needs. Communication disorders related to hearing loss, disfluency, resonance, voice and articulation problems are treated. By arrangement. Three credits.

**ADJUSTMENTS INTO ADULT LIVING (HIP) ....... LC 3024**
Teaches daily living skills as an aid in the mainstreaming process of the college. The study of college survival skills, including study habits, money management, employer-employee relationships, introduction to college facilities and support services, career exploration and clarification of personal values. Class meets three hours a week. Three credits.

**HUMANITIES**

**INTRO. TO THE HUMANITIES ....... HUM 6120**
This interdisciplinary study of the arts begins with the study of artistic form and the technical elements of several art forms including painting, music and drama. The expression of major themes in human existence through these art forms is also examined. Class meets three hours a week. Three credits.

**COMPARATIVE CULTURES ......... HUM 5431**
Interdisciplinary study of cultures. The course emphasizes development of the humanities in selected cultures as a background to the arts in contemporary society. Two European cultures and one non-European culture are studied. The concept of culture and the role of the humanities in culture in general is investigated. Class meets three hours a week. Three credits.

**INTRODUCTION TO PHILOSOPHY ... HUM 7520**
Examines basic issues of philosophy, such as the nature of being, methods of acquiring knowledge and the foundations of moral, religious and political beliefs. Emphasis is placed on the value philosophical inquiry has for contemporary living. Class meets three hours a week. Three credits.

**PHILOSOPHY OF CURRENT CIVILIZATION ....... HUM 2532**
A systematic and critical analysis of selected major current issues in American civilization and the philosophies presupposed by these issues. Analysis through relevant philosophical articles and news media. Class meets three hours a week. Three credits.

**ETHICAL ISSUES IN AMERICAN HEALTH CARE ................. HUM 4000**
This course focuses on ethical concerns and dilemmas which arise in health care settings. Attention is given to frameworks for analyzing ethical dilemmas and the value implications underlying models of patient treatment. Issues concerning patients' rights, life and death, scarce resources and cost are considered from varying ethical frameworks. Professional roles in health care and alternate forms of health care are also considered. Course meets one hour a week. One credit.
HISTORY OF ANCIENT PHILOSOPHY .......... HUM 5966
Greek and Roman thought, which ranges from speculation about the universe and theories of natural selection and atomism to carefully thought out treatises on the nature of people and society. Selections from ancient texts will be used, with commentary where appropriate. Class meets three hours a week. Three credits.

PHILOSOPHY OF RELIGION .......... HUM 2541
Rather than study the forms and documents of any specific religion, this course attempts to deal with the following 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. Class meets three hours a week. Three credits.

LOGIC .......... HUM 6392
Emphasis on improved ability to reason, clear thinking for effective expression, deductive and inductive arguments, and informal fallacies. Class meets three hours a week. Three credits.

ETHICS .......... HUM 3080
Study of the great problems of ethics, including free will and determinism, relativism and absolutism, the relationship between individuals and between individuals and society. Explanation of traditional positions enabling the student to better understand contemporary social and moral issues. Class meets three hours a week. Three credits.

HOSPITALITY MANAGEMENT

BASIC FOOD PREPARATION .......... BHM 7028
Prerequisite: Admission to the Hospitality Management Program. Basic quantity food preparation; theory of grilling, frying, broiling and sauteeing with a thorough understanding of the use and maintenance of equipment and duties performed at each station. Special emphasis on meat cuts, basic salad dressings and sauces. Class meets three hours a week. Three credits.

HOTEL-MOTEL OPERATIONS .......... BHM 4203
Coordinated management, administration and controls specific to public lodging establishments with emphasis on management functions. Front office procedures and techniques in the rental of rooms, reception of guests, handling of reservations, guest requests and complaints, convention and meeting procedures and requirements, guest records, mail and other routine procedures are studied. Class meets three hours a week. Three credits.

HOSPITALITY MANAGEMENT FUNDAMENTALS .......... BHM 6037
General overview of organization and departmental functions of food service and public lodging industries; positions of the industries in the American economic system; functions and limitations of the types of establishments. Class meets three hours a week. Three credits.

FOOD MANAGEMENT .......... BHM 3006
Prerequisite: Admission to the Hospitality Management Program. Menu planning and meal service for all phases of food service. Proper table service for various occasions. Buffet service, French service, American service and waiter/waitress training. Actual operation of an on-campus dining room including profit and loss statements, sales promotions and competitiveness studies. Class meets four hours a week. Three credits.

SUPERVISORY MANAGEMENT .......... BHM 4489
Supervision and motivation of employees in the hospitality industry with emphasis on human relations, delegation, training, evaluation and communication. Class meets three hours a week. Three credits.

SEMINAR IN HOSPITALITY MANAGEMENT:

PURCHASING .......... BHM 1287
Prerequisite: Admission to the Hospitality Management Program. Supervised work experience within an approved area in the hospitality field. Purchasing techniques and specification writing for items used in the hotel-motel food service field. Class meets two hours a week. A minimum of 15 hours on-the-job training a week by arrangement. Three credits.
SEMINAR IN HOSPITALITY MANAGEMENT: ACCOUNTING ................. BHM 5008
Prerequisite: Admission to the Hospitality Management Program. Supervised work experience within an approved area in the hospitality field. Principles and techniques of operating front offices, posting machines and front desks. Preparation of actual operation statements for food service operators, inventory preparation and control systems. Class meets two hours a week. Three credits.

SEMINAR IN HOSPITALITY MANAGEMENT: INTERNSHIP ..................... BHM 2640
Prerequisite: Admission to the Hospitality Management Program. Supervised work experience within an approved area in the hospitality field. Class meets by arrangement. Summer, three credits.

SEMINAR: ADVANCED HOSPITALITY MANAGEMENT .................... BHM 1388
Prerequisites: BHM 4489, 5008, 6037. Emphasis on application of skills in menu planning, food service, supervision, front office procedures, design techniques and beverage control enabling students to assume managerial responsibility in the hospitality field. Class meets three hours a week. Three credits.

SEMINAR IN MENU PLANNING AND SALES PROMOTION ................... BHM 4805
Concepts of planning menus for every type of service and facility. Menu layout, selection and development will be combined with operational impact projections. The effects of various price structures will be studied. The theory of menu design prior to construction will be developed. A minimum of 15 hours on-the-job training a week by arrangement. Class meets two hours a week. Three credits.

DESIGN TECHNIQUES ................. BHM 3804
Prerequisite: BHM 7028. A course in which food service design is studied in detail in relation to the menu, the location and the type of clientele expected. Layout, design and equipment specification will be included. Class meets two hours a week. Two credits.

ADVANCED FOOD PREPARATION .... BHM 7803
Prerequisite: BHM 7028 and 3006. Allows students with fundamental food skills to increase their knowledge of the culinary arts by implementing advanced skills required in the preparation of international cuisine. Class meets four hours a week. Four credits.

SEMINAR IN BEVERAGE CONTROL .... BHM 4807
A course in beverage control for all types of operations. A study of the history of wines, their uses and storage procedures. An in-depth study of spirits, international control systems as well as local and state alcoholic beverage control laws. Class meets two hours a week. Three credits.

FOOD SPECIALTIES—GARDE-MANGER ............... BHM 2166
Prerequisite: BHM 7028. A study of basic food preparation for the hospitality industry. Course will include soups, stocks, sauces, garde-manger section, chaud-froid pieces, buffets. Class meets three hours a week. Three credits.

FUNDAMENTALS OF BAKING .......... BHM 2163
Lecture and participation in basic baking procedures. Ingredients, measurements, mixing procedures, equipment use, proofing procedures, baking and final presentation of the product will be covered. Class meets three hours a week. Three credits.

CULINARY ARTS PRACTICUM I .... BHM 2913
Prerequisite: Acceptance into the American Culinary Federation Chef Apprenticeship Training Program. On-the-job apprentice training under the supervision of a qualified chef. An opportunity to learn food preparation and presentation techniques and to apply the knowledge and skills acquired on the job and in theory-related courses. The assignments in the operation will provide experience and training in all aspects of food service operation. The practicum will be conducted by a staff member of Johnson County Community College and supervised by an appointed member of the Greater Kansas City Chefs Association. Three credits.

CULINARY ARTS PRACTICUM II .... BHM 4941
Prerequisite: BHM 2913. A continuation of Culinary Arts Practicum I. Three credits.

CULINARY ARTS PRACTICUM III .... BHM 5942
Prerequisite: BHM 4941. A continuation of Culinary Arts Practicum II. Three credits.

CULINARY ARTS PRACTICUM IV .... BHM 7943
Prerequisite: BHM 5942. A continuation of Culinary Arts Practicum III. Three credits.

CULINARY ARTS PRACTICUM V .... BHM 6944
Prerequisite: BHM 7943. A continuation of Culinary Arts Practicum IV. Three credits.

CULINARY ARTS PRACTICUM VI .... BHM 9945
Prerequisite: BHM 6944. A continuation of Culinary Arts Practicum V. Three credits.

HOSPITALITY LAW ................. BHM 2177
Prerequisite: BHM 6037. Designed to familiarize the student with major legal problems which occur in the hotel-restaurant industry. Class meets three hours a week. Three credits.
INTERPRETER TRAINING

ORIENTATION TO INTERPRETING .......... LC 5166
An overview of interpreting as an occupation. Topics include interpersonal skills, professional ethics, parameters of responsibility of the paraprofessional, examination of community resources, and legal ramifications. Class meets three hours a week. Three credits.

UNDERSTANDING DEAFNESS .......... LC 5169
Study of the various causes of deafness; how impaired hearing affects physical, emotional, psychological, sociological and mental development patterns; how the deaf deal with society and how society deals with the deaf. Provides information in areas of testing, employment and counseling of deaf individuals. Class meets three hours a week. Three credits.

INTERPRETING I .......... LC 5170
Prerequisites: LC 5167 and LC 6053. Introduction to interpreting principles with emphasis on American (ASL) expressive interpreting and building translating skills. Class meets three hours a week. Three credits.

INTERPRETING II .......... LC 5171
Prerequisites: LC 5168 and LC 5170. Advanced course with concentration on reverse interpreting, translating and interpreting ethics. Introduction to technical and vocational sign language. Class meets three hours a week. Three credits.

COMMUNICATION SYSTEMS OF DEAFNESS I .......... LC 5167
Prerequisite: LC 7029. Study of the historical emergence of American Sign Language (ASL), ASL sign principles and the linguistic structure of the language, and the application of these principles in building expressive and receptive ASL signing skills. Class meets three hours a week. Three credits.

COMMUNICATION SYSTEMS OF DEAFNESS II .......... LC 5168
Prerequisites: LC 5167 and LC 6053. Introduction to the different systems used to communicate with the deaf person such as ASL, S.E.E., L.O.V.E., Oral, Rochester, Cued Speech and M.C.E. Class meets three hours a week. Three credits.

INTERPRETING PRACTICUM .......... LC 5172
Prerequisites: LC 5168 and concurrent enrollment in LC 5171. Introductory field experience involving observation and interaction totaling 45 credit hours a semester. Discussion of current literature in the field. Class/lab meets six hours a week. Three credits.

JOURNALISM

PRINCIPLES OF JOURNALISM .......... CJO 6648
Prerequisite: Basic typing skills or concurrent enrollment in BSC 1263. A study of journalism, its role in our society and the social responsibilities of the press. Various types of news and feature stories and the elements of style are emphasized. Students cover a news beat and write articles, which are submitted to the campus newspaper. Class meets three hours a week. Three credits.

NEWS GATHERING AND NEWS WRITING .......... CJO 1343
Prerequisite: Beginning typing or equivalent or concurrent enrollment in BSC 1263. An evaluation of news, how news is gathered, written and published. Practical experience includes the development of interview techniques, in-depth writing and submission of stories to the campus newspaper. Class meets three hours a week. Three credits.

FUNDAMENTALS OF ADVERTISING .......... CJO 2136
The role of advertising in today's business world. A study of various forms of advertising and the media involved. Class meets three hours a week. Three credits.

ADVERTISING COPYWRITING .......... CJO 7139
Prerequisite: CJO 2136 or by permission. Principles of advertising copywriting with practice in developing copy for a variety of tangible and intangible products. Each class member conducts an advertising campaign. Class meets three hours a week. Three credits.

JOURNALISM FIELD STUDY I .......... CJO 7464
Prerequisite: By permission. Work experience at an approved training center under staff supervision. Emphasis is placed on the application of writing techniques needed to produce news and/or advertising copy. Students receive a minimum of 15 hours of on-the-job training a week by arrangement. Class meets two hours a week. Three credits.
JOURNALISM FIELD STUDY II .......... CJO 3251
Prerequisite: By permission. Work experience at an approved training center under staff supervision. The student is expected to develop copy for news and/or advertising and have it published. Students receive a minimum of 15 hours of on-the-job training a week by arrangement. Class meets two hours a week. Three credits.

JOURNALISM FIELD STUDY III .......... CJO 5453
Prerequisite: By permission. Work experience at an approved training center under staff supervision. Emphasis on producing a portfolio of published materials sufficient for students to use in pursuing their careers. Students receive a minimum of 15 hours of on-the-job training a week by arrangement. Class meets two hours a week. Three credits.

LIFE AND HOME MANAGEMENT

HOUSING AND EQUIPMENT .......... BLH 2858
Emphasis on consumerism, home safety, maintenance and energy conservation as applied to the use of household products, appliances and equipment. Large and small appliances for kitchen, laundry, clean-up and utility area will be studied. New ideas in housing materials and equipment will be observed by field trips and demonstration. Class meets three hours a week. Three credits.

NUTRITION AND MEAL PLANNING .. BLH 2859
Study of food and basic nutrition as it applies to personal and family living. Emphasis on the principles of human nutrition and their application to the selection, preparation and storage of food. Consideration will be given to special diets, current trends in eating patterns, food fads and life cycle nutritional needs. Class meets three hours a week. Three credits.

FAMILY COMMUNICATIONS .......... BLH 7003
The interpersonal relationships of family members and factors contributing to effective communications will be studied. Strategies are developed for coping with stressful situations. The adult and family life cycle will be explored as a means of analyzing change. Class meets three hours a week. Three credits.

HOME MANAGEMENT .......... BLH 7004
Emphasis will be on practical management techniques utilizing human and material resources. Value clarification and goal setting will be applied to individuals and families. Skills will be gained in managing time, energy and money through a process based on sequential decision making. Class meets three hours a week. Three credits.

LIFE SCIENCE

LIFE SCIENCE .......... NLS 6540
The fundamental laws, theories and principles of biology are used to study living organisms and their relationships to the nonliving world. Course is taught using audio-visual materials. Six hours of class/lab a week. Four credits.

GENERAL BOTANY .......... NLS 5402
Basic introduction to plant structure and function. Plant divisions are covered with emphasis on life cycles and evolutionary relationships from the simplest to the most complex plants. Three hours of lecture and four hours of lab each week. Five credits.

GENERAL ZOOLOGY .......... NLS 4241
A survey of animal taxonomies, systematics and ecology of animal populations. Identification of representative members of the animal phyla using their structural characteristics. Interpretation of anatomical and physiological features in terms of adaption. Three hours of lecture and four hours of lab each week. Five credits.

PRINCIPLES OF BIOLOGY .......... NLS 5020
Explores selected basic concepts and principles that are important in understanding the operation of biological systems. The world of living organisms is examined. Class meets for lecture three hours a week. Three credits.

PRINCIPLES OF BIOLOGY LAB .......... NLS 5091
Corequisite: NLS 5020 (Principles of Biology) or its equivalent. A laboratory experience that provides a varied selection of activities to enhance the material presented in class. This introductory laboratory involves the structures and functions of plants and animals. Class will meet once a week for three hours. One credit.
GENERAL GENETICS .......... NLS 4248
Fundamental principles of heredity and variation. Concepts of Mendelian and non-Mendelian genetics. Plant, animal and human variations are covered. Class meets three hours a week. Three credits.

MICROBIOLOGY ............... NLS 5593
Prerequisite: NPS 6634 or one year of high school chemistry. The study of microorganisms: their cell structure, physiology, antimicrobial agents, immunology and host-parasite relationships. Class meets three hours a week. Three credits.

MICROBIOLOGY LABORATORY .. NLS 6057
Prerequisite: NLS 5593. Students transfer and grow microorganisms using sterile techniques, observe the effects of various environmental conditions and antibiotics on the growth of organisms, and run tests for the identification of microorganisms. Class meets four hours a week. Two credits.

HUMAN ANATOMY / PHYSIOLOGY .. NLS 6186
Analysis of the relationship of structure to function in the organ systems of the human body. Emphasis on location of anatomical features and interpretations of their functional morphology. Three hours of lecture and four hours of lab each week. Five credits.

HUMAN ANATOMY ............... NLS 1128
Gross and microscopic aspects of cells, tissues and organ systems of the human body. Concentration is on detailed analysis of the structure of each body region. Three hours of lecture and three hours of lab each week. Four credits.

HUMAN PHYSIOLOGY ............ NLS 1144
Prerequisite: NPS 6634. Emphasis on the activities of human cells, tissues, organs and systems in terms of the physical and chemical processes. Living organisms and physiological tools are used to demonstrate the principles of general physiology. Three hours of lecture and three hours of lab each week. Spring, four credits.

PATHOPHYSIOLOGY ............. NLS 1037
An introduction to the physiology of disease. Various health problems of the body, their causes, symptoms and treatment will be studied. An emphasis is placed on accurate use of terminology and accuracy in spelling in the study of these diseases. Class meets three hours a week. Three credits.

GENERAL PHARMACOLOGY .... NLS 1264
Prerequisite: NLS 1144. Identification and classification of therapeutic agents according to mechanism of action, therapeutic and toxic effects, and relation of physiological actions to clinical and experimental practices. Class meets three hours a week. Three credits.

GENERAL NUTRITION ......... NLS 6152
Prerequisite: NLS 1144. Principles of nutrition. Sources and utilization of essential nutrients and evaluation of various diets. Recommended diet alterations for the prevention of various pathologies. Class meets three hours a week. Three credits.

ENVIRONMENTAL SCIENCE ...... NLS 6719
An ecological approach to the study of human population growth and its technology. Present influence on the environment and directions for the future will be discussed. Class meets three hours a week. Three credits.

ENVIRONMENTAL SCIENCE LAB .. NLS 4720
Prerequisite: NLS 6719. Laboratory work involves sampling the local environment for various types and levels of pollution. Samples of air are collected and filtered to determine the amount and size of particles. Water samples are collected and analyzed for bacteria, physical and chemical factors. Another experiment examines factors which influence noise pollution from traffic. Various field trips include visiting a local industry, a water treatment plant and a sewage treatment plant to observe pollution control. Class meets three hours a week. One credit.

MARKETING MANAGEMENT

RETAIL ....................... BMM 1206
Retail store organization and operation, location and layout, retail buying techniques, human relations, employee supervision, and pricing and merchandising. Class meets three hours a week. Three credits.

RETAIL ADVERTISING AND DISPLAY .. BMM 1303
Modern techniques of advertising and display. Emphasis on media selection and use, copywriting, ad layout and illustration, showcard writing, display techniques, sales promotion, budgeting and scheduling. Class meets three hours a week. Three credits.

SALESMAINSHP ................ BMM 5026
Preparation of simulated presentations in specialty, wholesale and industrial areas of selling. Personality development and training materials are reviewed through projects, case problems and speakers. Class meets three hours a week. Three credits.

CREATIVE RETAIL SELLING .... BMM 2407
Emphasis on the fundamentals of retail selling. An analysis is made of the techniques of the sale. Case problems presented include sales presentations and demonstrations, handling objections and customer complaints, suggestive selling and closing the sale. Class meets three hours a week. Three credits.
SALES MANAGEMENT . BMM 2370
Prerequisite: BMM 2407 or 5026 or one year's successful selling experience. Emphasis on problems and solutions in managing the sales force including recruitment and selection of salespeople, training, compensation and motivation. Sales forecasting, sales planning and ethics are reviewed within different fields of selling. Class meets three hours a week. Three credits.

MARKETING AND MANAGEMENT SEMINAR:
SALES PROMOTION/MANAGEMENT . BMM 2155
Prerequisite: Admission to the Marketing and Management Program. Supervised work experience at an approved business establishment in the community. Application of selling methods to the preparation of an advertising promotional campaign relating to the student's ultimate career objective. Sales management concepts are incorporated in personal selling and mass sales promotion. Class meets two hours a week. A minimum of 15 hours on-the-job training a week by arrangement. Spring, three credits.

MARKETING AND MANAGEMENT SEMINAR:
MANAGEMENT DECISION MAKING . BMM 1283
Prerequisite: Admission to the Marketing and Management Program. Supervised work experience at an approved business establishment in the community. Management decision making in areas of supervisory human relations and merchandising problems. Sales and related training meetings in areas of marketing and management. Class meets two hours a week. A minimum of 15 hours on-the-job training a week by arrangement. Fall, three credits.

MARKETING AND MANAGEMENT SEMINAR:
MARKETING RESEARCH . BMM 6072
Prerequisite: Admission to the Marketing and Management Program. Supervised work experience at an approved business establishment in the community. Principles and techniques of market research for finding, identifying and determining needs and desires of individuals and organizations for potential business. Class meets two hours a week. A minimum of 15 hours on-the-job training a week by arrangement. Spring, three credits.

MARKETING AND MANAGEMENT SEMINAR:
ORGANIZATION AND OPERATION . BMM 1060
Prerequisite: Admission to the Marketing and Management Program. Supervised work experience at an approved business establishment in the community. Preparation of a series of training reports based on employer's operation policies and internal organization and structure. Class meets two hours a week. A minimum of 15 hours on-the-job training a week by arrangement. Fall, three credits.

MARKETING AND MANAGEMENT SEMINAR:
FINANCIAL ANALYSIS . BMM 7076
Prerequisite: Admission to the Marketing and Management Program. Supervised work experience at an approved business establishment in the community. Course content includes the examination of the basic fundamentals of business math with emphasis on ratio analysis, pricing, payroll and distribution costs. Class meets four hours a week. Minimum of 30 hours a week on-the-job training by arrangement. Summer, three credits.

MATHEMATICS

FUNDAMENTALS OF MATH . MTH 2122
Review of fractions, decimals and whole numbers. Numeration. Practical applications of percent, dimensions and linear equations. Class meets three hours a week. Three credits.

INTRODUCTION TO ALGEBRA . MTH 7246
For those who have less than one year of high school algebra or whose training is not current. Includes fundamental algebraic operations, fractions, first and second degree equations, graphs, exponents and radicals. Class meets three hours a week. Three credits.

ALGEBRA . MTH 6079
Prerequisite: MTH 3001 or 9009 or one and one-half years of high school algebra or equivalent. A college algebra course with extensive review of the fundamental algebraic operations followed by a study of polynomial, rational, exponential and logarithmic functions; systems of equations; matrices and determinants; sequences and series; and the binomial theorem. Class meets five hours a week. Five credits.
GEOMETRY ............................................. MTH 3000  
Prerequisite: MTH 7246 (may be taken concurrently) or one year of high school algebra. Intuitive approach to basics of geometry for those students who have not had geometry in high school. Lines, polygons, area, volume, circles, similarity, congruence and coordinate geometry. Class meets two hours a week. Two credits.

INTRODUCTION TO ALGEBRA AND GEOMETRY ............................................. MTH 9009  
A beginning course in algebra and the basics of geometry. Fundamental algebraic operations, fractions, exponents, radicals, coordinate geometry, first and second degree equations, lines, circles, polygons, area, volume, similarity and congruence. Class meets five hours a week. Five credits.

INTERMEDIATE ALGEBRA ............... MTH 3001  
Prerequisite: MTH 7246 or one year of high school algebra and geometry. Geometry may be taken concurrently. Polynomials, rational expressions, radicals, equations and inequalities, graphing, relations, functions and systems of equations. Class meets three hours a week. Three credits.

COLLEGE ALGEBRA ...................... MTH 3427  
Prerequisite: MTH 3001 or two years of high school algebra or equivalent. A study of polynomial, rational, exponential and logarithmic functions, systems of equations, conics, determinants, sequences and series, combinations, binomial theorem. Class meets three hours a week. Three credits.

TRIGONOMETRY ......................... MTH 2594  
Prerequisite: MTH 6079 (Algebra) or concurrent enrollment in MTH 3427 (College Algebra). Not recommended for the student with high school credit in trigonometry. Trigonometric functions, identities, graphs, equations, inverse trigonometric functions, polar coordinates, complex numbers and applications. Class meets three hours a week. Three credits.

ALGEBRA–TRIGONOMETRY ............ MTH 7091  
Prerequisite: MTH 3001 or two years of high school algebra or equivalent. An intensive study of both college algebra and trigonometry for well-prepared students. Will cover topics included in both MTH 3427 and MTH 2594. Class meets five hours a week. Five credits.

ANALYTIC GEOMETRY–CALCULUS I ............... MTH 3268  
Prerequisite: MTH 7091 or equivalent. The first course of a three-semester sequence in analytic geometry and calculus. Elements of plane analytic geometry, differentiation of algebraic functions, integration of polynomial functions with applications of each. Class meets five hours a week. Five credits.

ANALYTIC GEOMETRY–CALCULUS II ............... MTH 4313  
Prerequisite: MTH 3268 or equivalent. The second course of a three-semester sequence in analytic geometry and calculus. Trigonometric and exponential functions, parametric equations, polar coordinates, vectors in a plane, techniques of integration and applications. Class meets five hours a week. Five credits.

ANALYTIC GEOMETRY–CALCULUS III ............... MTH 6357  
Prerequisite: MTH 4313 or equivalent. The third course in a three-semester sequence in analytic geometry and calculus. Solid analytic geometry, vectors in space, infinite series, partial differentiation, multiple integration and limits. Class meets five hours a week. Five credits.

DIFFERENTIAL EQUATIONS .................... MTH 3675  
Prerequisite: MTH 6357 or equivalent. Standard types of ordinary equations, second and higher order linear equations, systems of linear equations, solutions by series, the Laplace transform, and applications. Class meets three hours a week. Spring, three credits.

STATISTICS ......................... MTH 2084  
Prerequisite: MTH 6079 or equivalent. Introduces descriptive statistics, probability models, sampling distribution, hypothesis testing, chi-square test, regression and correlation. Class meets three hours a week. Three credits.

FUNDAMENTALS OF MATRICES AND LINEAR PROGRAMMING .................... MTH 5564  
Prerequisite: MTH 3427 or equivalent. An introduction to the fundamental concepts of linear algebra with emphasis on computational methods and problem solving. Application of the concepts and methods to linear programming. Class meets three hours a week. Three credits.

FINITE MATHEMATICS .................... MTH 2642  
Prerequisite: MTH 7246 or 9009 or one year of high school algebra or equivalent. Mathematics for the elementary education or liberal arts student. Includes topics selected from logic, geometry, probability, metric system, consumer mathematics, sequences, number systems, statistics, flow-charting and computers. Class meets three hours a week. Three credits.

MODERNIZED METRIC SYSTEM ............. MTH 3609  
Background for understanding the international metric system. Experiences concentrate on length, mass, volume, temperature and appropriate prefixes. Class meets one hour a week. One credit.
INDUSTRIAL MATHEMATICS I .......... MTH 2942
Industrial computations using basic mathematical ideas concerning whole numbers, fractions, decimals, percents and integers. Procedures for solving industrial problems involving algebraic, geometric and trigonometric formulas. Class meets five hours a week. Five credits.

INDUSTRIAL MATHEMATICS II .......... MTH 2943
Prerequisite: MTH 2942 or equivalent. Industrial computations using basic mathematical ideas developed in MTH 2942. Procedures for solving trade and industrial problems involving algebraic, geometric and trigonometric formulas. Class meets five hours a week. Five credits.

MATH FOR ELECTRONICS I .......... MTH 9000
The theory and application of algebra as it is used in solving and understanding electronic circuits. Class meets five hours a week. Five credits.

MATH FOR ELECTRONICS II .......... MTH 9001
Prerequisite: MTH 9000. The theory and application of trigonometry as applied to AC circuits, computer number systems and digital math concepts. Class meets five hours a week. Five credits.

CALCULUS I ................. MTH 6463
Prerequisite: MTH 3427 or equivalent. The first course of a two-semester sequence in calculus. Differentiation and integration of algebraic, exponential and logarithmic functions with applications in business, biology and the social sciences. Class meets three hours a week. Three credits.

CALCULUS II ................. MTH 5329
Prerequisite: MTH 6463. The second course of a two-semester sequence in calculus. Techniques of integration, differential equations and functions of several variables with applications in business, statistics, biology and the social sciences. Class meets three hours a week. Three credits.

TECHNICAL MATHEMATICS I .......... MTH 4354
Simplification of algebraic expressions, graphing of linear equations, solving of linear equations, factoring of quadratic expressions, solving quadratic equations and evaluating determinants. Engineering technology applications. Class meets five hours a week. Five credits.

TECHNICAL MATHEMATICS II .......... MTH 5387
Prerequisite: MTH 4354. Application of trigonometric laws to solve right and oblique triangles, perform arithmetic on complex numbers and evaluate logarithms. Finding derivatives of functions, utilizing derivatives to find maximums and minimums, integrals of functions and integrations to find areas. Engineering technology applications. Class meets five hours a week. Five credits.

MEDICAL LABORATORY TECHNOLOGY

DIAGNOSTIC PARASITOLOGY AND MYCOLOGY .......... NLT 9759
Prerequisite: Completion of the first year of the MLT program or completion of Biology 208 and consent of the instructor. The student will study the morphological features, clinical collection and diagnosis of the pathological parasitic and mycotic infections in humans. These fungi and parasites will be closely integrated with the specific disease process and treatment. Sixteen hours a week. One credit.

INTRODUCTION TO THE CLINICAL LAB ........ NLT 9760
Prerequisite: High school algebra. Study of the organization and career roles in the laboratory. Students will examine and use laboratory calculations. Class meets one hour a week. One credit.

FUNDAMENTAL TECHNIQUES AND PROCEDURES .......... NLT 9761
Students will study and perform fundamental procedures used in the clinical laboratory. They will study pathologic disease states, and study and apply the principles of quality control to clinical procedures. Class meets four hours a week. Three credits.

DIAGNOSTIC MICROBIOLOGY .......... NLT 9762
Prerequisite: Completion of the first year of the MLT program or consent of the instructor. The student will study the morphology, growth characteristics and pathological implications of bacteria. They will correlate this with findings in various disease states. Class meets three hours a week. Three credits.
CLINICAL PRACTICUM I .............. NLT 9763
The student will observe, practice and apply techniques of diagnostic microbiology. Class meets three hours a week. Five credits.

CLINICAL CHEMISTRY ............... NLT 9764
The student will review and integrate specific pathologic conditions with chemical procedures. Class meets three hours a week. Four credits.

HEMATOLOGY ......................... NLT 9765
Prerequisite: Completion of first year of MLT program or consent of instructor. The student will study the formation, morphology and functions of the formed blood cell elements. These findings will be integrated with specific pathologic processes. Hemostasis and coagulation will also be included. Three credits.

CLINICAL PRACTICUM II ............. NLT 9766
The student will observe, practice and apply techniques of hematology and clinical chemistry, both manual and automated. Class meets thirty hours a week. Ten credits.

DEPARTMENTAL SEMINAR ............. NLT 9767
The student will review pathologic conditions of the kidney and urinary tract and will integrate these conditions with laboratory findings. The student will review specialized areas of laboratory medicine. Class meets three hours a week. Three credits.

APPLIED IMMUNOLOGY ................. NLT 9768
Prerequisite: Completion of first year of MLT program or consent of instructor. The student will study the immunological and immuno-hematological functions and will integrate them with in vivo and in vitro conditions. Class meets three hours a week. Three credits.

CLINICAL PRACTICUM III ............. NLT 9769
The student will observe, practice and apply techniques of applied immunology, urinalysis and the other specialty areas of the clinical laboratory. Class meets thirty hours a week. Ten credits.

MEDICAL RECORDS TECHNOLOGY

INTRO. TO THE MEDICAL RECORD PROFESSION ................ NMR 1135
Orientation to the medical record profession, the language of medicine, and medical ethics in professional relationships. An introduction to the history of medicine, hospital and medical staff organization, and function and roles of health professionals. Class meets two hours a week. Two credits.

HEALTH RECORD SYSTEMS: ANALYSIS AND CONTROLS .............. NMR 2681
Prerequisite: NMR 2680 or by permission. An in-depth study of storage, retrieval and control of various medical record systems. The content, use and preservation of medical records. Accrediting, licensing and approval agencies' requirements on documentation and information systems. Class meets three hours a week. Three credits.

CLASSIFICATIONS, NOMENCLATURES, INDICES AND REGISTRIES ........ NMR 2682
Prerequisites: NMR 2681, NLS 6186. Corequisite: NS 2686. Study of various nomenclatures of diseases and operations, indices and registries, and methods of retrieval and presentation of data for research purposes. Class meets three hours a week. Two credits.

QUALITY ASSURANCE AND SELECTED HEALTH RECORD SYSTEMS .......... NMR 2683
Prerequisite: NMR 2682 or by permission. Study of health records and services of long-term and ambulatory care. Emphasis on quality assurance requirements or regulatory agencies and the methodology and procedures in assessing quality of care. Class meets four hours a week. Three credits.

LEGAL ASPECTS OF MEDICAL RECORDS ......................... NMR 2684
Prerequisite: NMR 2682. An investigation of relevant aspects of federal and state judicial opinions, statutes, rules and regulations. Methods and procedures for disclosure of confidential information as applied to medical records. Class meets two hours a week. Two credits.

HEALTH STATISTICS AND RESEARCH METHODS ...................... NMR 2685
Prerequisite: NMR 2681 or by permission. Vital and health statistics, their uses and values. How to abstract and analyze data from a medical record and other sources. Class meets three hours a week. Two credits.
DIRECTED PRACTICE I .................. NMR 7111
Prerequisites: NMR 2680, NMR 2681. Corequisite:
NMR 2685. Students develop skills in laboratory and
perform procedures in medical record departments in
health facilities associated with the program.
Assignments related to numbering and filing systems,
health data collection and presentation, medical
record processing and patient registration. Hours by
arrangement. Three credits.

DIRECTED PRACTICE II .............. NMR 1325
Prerequisites: NMR 7111, NMR 2682, BSC 4715. Corequi-
tise: NMR 2683. Experience in a variety of pro-
cedures performed in the laboratory and clinical set-
ting. Clinical experience is gained in coding and
abstracting health information, tumor registry,
medical transcription and quality assurance. Hours by
arrangement. Four credits.

DIRECTED PRACTICE III ............ NMR 3117
Prerequisite: NMR 2683, NMR 1325. Continuation of
supervised laboratory and clinical experience in
medical record departments affiliated with the MRT
program. Procedures relate to classroom-acquired
knowledge of functions of medical record technicians.
Hours by arrangement. Five credits.

DEPARTMENTAL SEMINAR .......... NMR 2345
Prerequisite: NMR 2683. This course is a forum for
medical record principles and practices. Affiliation
experiences and research projects are shared with the
class. Supervisory and management principles are
applied to functions and activities of medical record
department. Class meets twice a week. Two credits.

MEDICAL TERMINOLOGY

MEDICAL TERMINOLOGY I ............. NS 5381
Self-instructional approach to learning medical termi-

nology. A handbook and tapes are designed to give
the student a start on building a medical vocabulary,
stressing definition, spelling and pronunciation of
terms. Student selects systems to be studied from six
areas: respiratory, circulatory, digestive, musculo-
skeletal, genitourinary and nervous systems. Class
meets by arrangement. Two credits.

MEDICAL TERMINOLOGY II ............ NS 6476
Prerequisite: NS 5381. Continuation of NS 5381.
Student may choose any two areas not previously
studied. Class meets by arrangement. One credit.

MEDICAL TERMINOLOGY III ........ NS 4165
Prerequisite: NS 6476. Continuation of NS 6476.
Student may choose any two areas not previously
studied. Class meets by arrangement. One credit.

MEDICAL TERMINOLOGY IV ............ NS 2686
Prerequisites: NS 5381 and NLS 6186. Review of
anatomical roots, prefixes and suffixes. Further study
of descriptive terms, laboratory tests, diseases and
operations for each system of the body. Class meets
three hours a week. Three credits.

MENTAL HEALTH TECHNOLOGY

MENTAL HEALTH TECHNOLOGY I .... NMH 8881
Basic concepts necessary for the maintenance of
physical health. A supervised clinical practicum in-
tegrates basic procedures, such as assessing normal
body functioning; measures of comfort, safety and
hygiene; observing and recording; nutrition; phar-
macology; life-saving measures and health teaching
measures. This course includes requirements for cer-
tification in first aid and cardiopulmonary resusci-
tation. Class meets six hours a week. Four credits.

MENTAL HEALTH TECHNOLOGY II .... NMH 2383
Corequisite: NMH 8881. A broad overview of basic
psychiatric concepts. Study of patterns of behavior
commonly associated with mental illness is incor-
porated in the clinical practicum. The clinical prac-
ticum provides experience with young and adult
psychiatric patients, the elderly, mental retardation
and substance abuse. Class meets eleven hours a week.
Six credits.

MENTAL HEALTH TECHNOLOGY III .... NMH 7884
Prerequisites: NMH 8881 and NMH 2383. An in-depth
study of the patterns of behavior and treatment
modalities associated with mental illness. A clinical
practicum will provide experience with the common
psychiatric disorders as well as emergency social pro-
blems. Class meets ten hours a week. Six credits.

MENTAL HEALTH TECHNOLOGY IV .... NMH 4885
Prerequisites: NMH 8881, 2383, 7884. Signs, symptoms
and care of physical health problems. Specific treat-
ment and principles are integrated in a clinical prac-
ticum which provides experience with adults and
children in physical distress. Class meets thirteen
hours a week. Seven credits.

MUSIC

INTRO. TO MUSIC LISTENING ......... HMU 8927
An introductory survey of the development of music
as an art with emphasis on listening. Recorded music
including medieval, non-Western, classical and con-
temporary will be presented. Class meets three hours
a week. Three credits.
INTRO. TO MUSIC FUNDAMENTALS . HMU 7669
Basic study of notation of melody, rhythm and meter as well as musical terminology. For the elementary classroom teacher or music student without sufficient background for theory. Class meets two hours a week. Two credits.

INTRO. TO JAZZ LISTENING ........ HMU 2777
An introduction to the history of jazz in America, with an emphasis on listening. Course will focus on trends, periods and styles. Class meets three hours a week. Three credits.

SIGHT-SINGING AND EAR TRAINING I ........ HMU 7656
Course presents the melodic, harmonic and rhythmic elements of music by integrating aural and sight-reading skills. Class meets two hours a week. Two credits.

SIGHT-SINGING AND EAR TRAINING II ........ HMU 5107
Prerequisite: HMU 7656. Course presents an advanced study of the melodic, harmonic and rhythmic elements of music by integrating aural and sight-reading skills. Class meets two hours a week. Two credits.

SIGHT-SINGING AND EAR TRAINING III ........ HMU 3628
Prerequisite: HMU 5107. Continued advanced study of the melodic, harmonic and rhythmic elements. Class meets two hours a week. Two credits.

SIGHT-SINGING AND EAR TRAINING IV ........ HMU 7563
Prerequisite: HMU 3628. Continued advanced study and improvement of aural and sight-reading skills with melodic and harmonic dictation. Class meets two hours a week. Two credits.

MUSIC THEORY: HARMONY I .......... HMU 5010
Review of the fundamentals of music. Introduction to melodic line construction, triads and the connection of chords in four-part music writing. Class meets two hours a week. Two credits.

MUSIC THEORY: HARMONY II ........ HMU 3559
Prerequisite: HMU 5010. Continuation of work with melodic line, triads and connection of chords in four-part music writing. Emphasis on inverted triads and submediant triads. Introduction to elementary modulation. Class meets two hours a week. Two credits.

MUSIC THEORY: HARMONY III ........ HMU 6014
Prerequisite: HMU 3559. Continuation of work with modulation, nonharmonic tones and inverted triads in four-part music writing. Introduction of less common chord progressions, diatonic seventh chords, altered chords and borrowed chords. Emphasis on original student composition as vehicle for study of materials. Class meets two hours a week. Two credits.

MUSIC THEORY: HARMONY IV ........ HMU 2270
Prerequisite: HMU 6014. Continuation of work with original compositions. Introduction to augmented triads. Neapolitan, French and German sixth chords, chords at the ninth, eleventh, thirteenth, advanced modulation and basic counterpoint. Class meets two hours a week. Two credits.

CHORUS I ......................... HMU 3515
Open to all students. Rehearsal and performance of vocal music. Occasional joint performances with chamber choir. Ensemble will perform some contemporary jazz and pop materials. Class meets three hours a week. One credit.

CHORUS II ......................... HMU 4113
Prerequisite: HMU 3515. Continuation of Chorus I. Class meets three hours a week. One credit.

CHORUS III ......................... HMU 4249
Prerequisite: HMU 4113. Continuation of Chorus II. Class meets three hours a week. One credit.

CHORUS IV ......................... HMU 2399
Prerequisite: HMU 4249. Continuation of Chorus III. Class meets three hours a week. One credit.

CHAMBER CHOIR I ................ HMU 6529
Prerequisite: By permission. Rehearsal and performance of vocal music. Choir performs at various student and community activities. Class meets three hours a week. One credit.

CHAMBER CHOIR II ............... HMU 2305
Prerequisite: HMU 6529 or by permission. Continuation of Chamber Choir I. Class meets three hours a week. One credit.
CHAMBER CHOIR III ..................... HMU 7542
Prerequisite: HMU 2305. Continuation of Chamber Choir II. Class meets three hours a week. One credit.

CHAMBER CHOIR IV ..................... HMU 1208
Prerequisite: HMU 7542. Continuation of Chamber Choir III. Class meets three hours a week. One credit.

JAZZ LAB BAND I ....................... HMU 4005
Prerequisite: By audition. Performances of jazz and popular music at public concerts and college functions. Class meets three times a week, two hours a meeting. Two credits.

JAZZ LAB BAND II ...................... HMU 2220
Prerequisite: By audition. Continued performance of jazz and popular music at public concerts and College functions. Class meets three times a week, two hours a meeting. Two credits.

JAZZ LAB BAND III ..................... HMU 1672
Prerequisite: By audition. Continued performance of jazz and popular music at public concerts and College functions. Class meets three times a week, two hours a meeting. Two credits.

JAZZ LAB BAND IV ...................... HMU 2533
Prerequisite: By audition. Continued performance of jazz and popular music at public concerts and College functions. Class meets three times a week, two hours a meeting. Two credits.

JAZZ IMPROVISATION I .................. HMU 2262
Prerequisite: High school playing experience. Fundamental approach to rhythm and melodic lines involved in creative improvisation. Basic procedures in analyzing chords and chord structures as an outline for organized spontaneous playing. Class meets two hours a week. Two credits.

JAZZ IMPROVISATION II .................. HMU 1245
Prerequisite: HMU 2262 or by permission. Continuation of Jazz Improvisation I. Creative improvisation and basic procedures in analyzing chord structures as an outline for organized spontaneous playing. Class meets two hours a week. Two credits.

CONCERT BAND I ....................... HMU 6018
Prerequisite: High school playing experience. This organization draws its literature from the concert band repertoire with emphasis on early works and original contemporary selections. Class meets three hours a week. One credit.

CONCERT BAND II ....................... HMU 7022
Prerequisite: HMU 6018 or by permission. Continuation of Concert Band I. Class meets three hours a week. One credit.

CONCERT BAND III ..................... HMU 6676
Prerequisite: HMU 7022 or by permission. Continuation of Concert Band II. Class meets three hours a week. One credit.

CONCERT BAND IV ...................... HMU 5009
Prerequisite: HMU 6676 or by permission. Continuation of Concert Band III. Class meets three hours a week. One credit.

 ORCHESTRA I ......................... HMU 3671
Prerequisite: By audition. Rehearse and perform with the Overland Park Civic Orchestra. Class meets one evening a week for two hours. One credit.

 ORCHESTRA II ......................... HMU 1374
Prerequisite: HMU 3671 or by audition. Rehearse and perform with the Overland Park Civic Orchestra. Class meets one evening a week for two hours. One credit.

 ORCHESTRA III ......................... HMU 1049
Prerequisite: HMU 1374 or by audition. Rehearse and perform with the Overland Park Civic Orchestra. Class meets one evening a week for two hours. One credit.

 ORCHESTRA IV ......................... HMU 2534
Prerequisite: HMU 1049 or by audition. Rehearse and perform with the Overland Park Civic Orchestra. Class meets one evening a week for two hours. One credit.

CHAMBER ENSEMBLE I ................... HMU 3146
Prerequisite: High school playing experience. The study and performance of standard literature for ensembles: brass, woodwind and percussion. Class meets two hours a week. One credit.

CHAMBER ENSEMBLE II ................... HMU 4166
Prerequisite: HMU 3146 or by permission. Continued study and performance of standard literature for ensembles, brass, woodwind and percussion. Class meets two hours a week. One credit.

CHAMBER ENSEMBLE III .................. HMU 5202
Prerequisite: HMU 4166 or by permission. Continued study and performance of standard literature for ensembles, brass, woodwind and percussion. Class meets two hours a week. One credit.

CHAMBER ENSEMBLE IV ................... HMU 6213
Prerequisite: HMU 5202 or by permission. Continued study and performance of standard literature for ensembles: brass, woodwind and percussion. Class meets two hours a week. One credit.

APPLIED GUITAR I (PRIVATE) ............ HMU 6787
Private instruction on guitar. Lesson time by arrangement, one-half hour a week. One credit.
APPLIED PIANO I (CLASS) ....... HMU 8767
Class instruction with emphasis on learning to play the piano from the early stages. Classes meet one hour a week. One credit.

APPLIED PIANO II (CLASS) ....... HMU 4768
Prerequisite: HMU 8767.

APPLIED PIANO III (CLASS) ....... HMU 8769
Prerequisite: HMU 4768.

APPLIED PIANO IV (CLASS) ....... HMU 5770
Prerequisite: HMU 8769.

APPLIED PIANO I (PRIVATE) ....... HMU 6783
Private instruction on piano. Lesson time by arrangement, one-half hour a week. One credit.

APPLIED PIANO II (PRIVATE) ....... HMU 1784
Prerequisite: HMU 6783.

APPLIED PIANO III (PRIVATE) ....... HMU 4785
Prerequisite: HMU 1784.

APPLIED PIANO IV (PRIVATE) ....... HMU 8786
Prerequisite: HMU 4785.

APPLIED PERCUSSION I (PRIVATE) ....... HMU 1799
Private instruction on percussion instrument of student’s choice. Lesson time by arrangement, one-half hour a week. One credit. (Music majors)

APPLIED PERCUSSION II (PRIVATE) ....... HMU 6800
Prerequisite: HMU 1799.

APPLIED PERCUSSION III (PRIVATE) ....... HMU 4801
Prerequisite: HMU 6800.

APPLIED PERCUSSION IV (PRIVATE) ....... HMU 1802
Prerequisite: HMU 4801.

APPLIED BRASS I (PRIVATE) ....... HMU 5795
Private instruction on a brass instrument of the student’s choice. Lesson time by arrangement, one-half hour a week. One credit. (Music majors)

APPLIED BRASS II (PRIVATE) ....... HMU 7796
Prerequisite: HMU 5795.

APPLIED BRASS III (PRIVATE) ....... HMU 9797
Prerequisite: HMU 7796.

APPLIED BRASS IV (PRIVATE) ....... HMU 6798
Prerequisite: HMU 9797.

APPLIED VOICE I (CLASS) ....... HMU 1763
Class instruction with emphasis on learning to sing from the beginning stages. Class meets one hour a week. One credit.
APPLIED VOICE II (CLASS) .......... HMU 2764
Prerequisite: HMU 1763.

APPLIED VOICE III (CLASS) .......... HMU 4765
Prerequisite: HMU 2764.

APPLIED VOICE IV (CLASS) .......... HMU 5766
Prerequisite: HMU 4765.

APPLIED VOICE I (PRIVATE) .......... HMU 3779
Private instruction in vocal music. Lesson time by arrangement, one-half hour a week. One credit.

APPLIED VOICE II (PRIVATE) .......... HMU 5780
Prerequisite: HMU 3779.

APPLIED VOICE III (PRIVATE) .......... HMU 6781
Prerequisite: HMU 5780.

APPLIED VOICE IV (PRIVATE) .......... HMU 4782
Prerequisite: HMU 6781.

APPLIED WOODWIND I (CLASS) ...... HMU 7759
Class instruction on a wind instrument of the student's choice. Emphasis on learning to play from the fundamental stages. Classes meet one hour a week. One credit.

APPLIED WOODWIND II (CLASS) ...... HMU 8760
Prerequisite: HMU 7759.

APPLIED WOODWIND III (CLASS) ...... HMU 2761
Prerequisite: HMU 8760.

APPLIED WOODWIND IV (CLASS) ...... HMU 5762
Prerequisite: HMU 2761.

APPLIED WOODWIND I (PRIVATE) ... HMU 2775
Private instruction on a woodwind instrument of the student's choice. Lesson time by arrangement, one-half hour a week. One credit. (Music majors)

APPLIED WOODWIND II (PRIVATE) ... HMU 8776
Prerequisite: HMU 2775.

APPLIED WOODWIND III (PRIVATE) ... HMU 7777
Prerequisite: HMU 8776.

APPLIED WOODWIND IV (PRIVATE) ... HMU 1778
Prerequisite: HMU 7777.

NURSING

NURSING CARE OF THE INDIVIDUAL:
CONCEPTS OF HEALTH .......... NRN 8846
Prerequisite: Admission to the Nursing program. Corequisite: NLS 1128. This is the first of four sequential courses and will serve as an introduction to nursing with emphasis on the maintenance and promotion of physical and mental health in the individual of any age group. Role of the nurse as a member of the health team. Effects of interpersonal relationships and utilization of communications skills. Clinical laboratory is an integral part of the course. Four hours of class and twelve hours of lab a week. Fall, eight credits.

NURSING CARE OF THE INDIVIDUAL:
ADAPTATION TO CHANGE ...... NRN 3131
Prerequisite: NRN 8846. Corequisite: NLS 1144. This is the second of four sequential nursing courses and provides an opportunity for students to explore the impact of stress on the individual, family and community. NRN 3131, the second clinical nursing course, offers students an opportunity to apply the nursing process in meeting adaptive needs of individuals. Clinical laboratory practice is an integral part of the course. Four hours of class and twelve hours of clinical lab a week. Spring, eight credits.

NURSING CARE OF THE INDIVIDUAL: SHORT-TERM HEALTH PROBLEMS ...... NRN 2847
Prerequisite: NRN 3131 and SS 3546. The third in a sequence of four courses in the nursing sequence focuses 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. Four hours of class and fifteen hours of clinical lab a week. Fall, nine credits.
NURSING CARE OF THE INDIVIDUAL: LONG-TERM HEALTH PROBLEMS . . . . NRN 5848
Prerequisite: NRN 2847. The fourth in a sequence of four nursing courses focusing on the individual whose optimum state of well-being has been altered by chronic, progressive disruptive problem(s) which require implementation of the nursing process. Emphasis is on the concept of (re)habilitation, 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. Four hours of class and fifteen hours of clinical lab a week. Spring, nine credits.

PARALEGAL

INTRODUCTION TO PARALEGALISM . . BPL 9739
Introductory study of the legal system with special emphasis on the role of the paralegal within that system. Students will be exposed to the operation and structure of the state and federal court systems, administrative agencies, private law firms and public sector law offices. Procedural and substantive aspects of the law will be discussed with consideration given to the education and training of paralegals. Class meets three hours a week. Three credits.

LEGAL RESEARCH AND WRITING . . . BPL 7740
Prerequisite: BPL 9739 or concurrent enrollment or consent of coordinator of Paralegal program. A practical approach to legal research problems normally encountered in the practice of law. The student will become familiar with legal publications and will be trained in their use in solving legal problems through research projects. The course will cover the methods and various forms of legal writing. Class meets three hours a week. Three credits.

BUSINESS ORGANIZATIONS I . . . . . BPL 2184
Prerequisite: BPL 9739 or consent of coordinator of Paralegal program. The study of the legal organizations of various business entities such as corporations, partnerships and sole proprietorships. Emphasis is on the function of the lawyer and the legal assistant in the formation and operation of business organizations. This includes a practical review of the fundamental legal concepts applicable to each type of business organization studied and preparation of related documents. Class meets three hours a week. Three credits.

BUSINESS ORGANIZATIONS II . . . . . BPL 3320
Prerequisite: BPL 2184 or consent of coordinator of Paralegal program. Study of the various business entities with emphasis on the function of a paralegal in a law office in connection with the organization and operation of business organizations. This will be a continuation of Business Organizations I and will include a further review and preparation of related documents. Class meets three hours a week. Three credits.

REAL ESTATE LAW I . . . . . . . . . BPL 2828
Prerequisite: BPL 9739 or consent of coordinator of Paralegal program. Study of the law of real property and the common types of real estate transactions and conveyances. Various legal instruments such as deeds, contracts, leases, deeds of trust and mortgages are studied with emphasis on their preparation. Study activities include projects and practice in retrieving and recording information. Class meets three hours a week. Three credits.

REAL ESTATE LAW II . . . . . . . . BPL 6090
Prerequisite: BPL 2828 or consent of coordinator of Paralegal program. Detailed study of real estate transactions, with emphasis on leases, sale leasebacks, land financing, closings, commissions and the real estate transaction as a whole. This course will be a continuation of Real Estate Law I and will include document preparations by the student for a real estate transaction from inception to conclusion. Class meets three hours a week. Three credits.

WILLS, TRUSTS AND PROBATE ADMINISTRATION . . . . . . BPL 7826
Prerequisite: BPL 9739 or consent of coordinator of Paralegal program. The study of the basic legal concepts applicable to wills, trusts and procedures for the administration of trusts and estates. Included are techniques for fact gathering, inheritance and estate tax principles, use of trusts, will drafting and probate procedures. Emphasis is on standard procedures used in the assistance of lawyers in these matters. Class meets three hours a week. Three credits.

ESTATE PLANNING . . . . . . . . . BPL 2218
Prerequisite: BPL 7826 or consent of coordinator of Paralegal program. Study of estate planning with emphasis on estate tax considerations. Includes the preparation of federal estate tax forms, state inheritance forms, fiduciary income tax returns and the drafting of trust provisions as they relate to estate planning matters. Class meets three hours a week. Three credits.

SEMINAR: LEGAL INTERVIEWING AND INVESTIGATION . . . . . BPL 7980
Prerequisites: BPL 9739 and at least nine credits in other paralegal specialty courses. Work experience in an approved training situation under instructional supervision. Designed to provide practical experience in the use of skills acquired in prerequisite courses with classroom emphasis on interviewing, investigation and preparation of legal checklists. A minimum of fifteen hours on-the-job training a week by arrangement. Class meets two hours a week. Three credits.
SEMINAR: WORKMEN'S COMPENSATION AND BANKRUPTCY ................. BPL 5413
Prerequisites: BPL 9739 and at least nine credits in other paralegal specialty courses. Work experience in an approved training situation under instructional supervision. Designed to provide practical experience in the use of skills acquired in prerequisite courses. Classroom emphasis on the use of forms and procedures in the areas of bankruptcy and workmen's compensation. A minimum of fifteen hours on-the-job training a week by arrangement. Class meets two hours a week. Three credits.

LITIGATION I ..................... BPL 7917
Prerequisite: BPL 9739 and BPL 7740 or consent of coordinator of Paralegal program. Analysis and discussion of the civil litigation process with emphasis on the practice aspects involved in the trial of a civil lawsuit. Includes the study of various types of litigation: Kansas, Missouri and federal civil procedures; trial preparation; trial and post-trial matters. Class meets three hours a week. Three credits.

LITIGATION II .................... BPL 8940
Prerequisite: BPL 7917 or consent of coordinator of Paralegal program. This course is a continuation of the principles studied in Litigation I with emphasis on the trial and appellate stages of civil litigation. Includes in-depth preparation of pleadings and related documents. Class meets three hours a week. Three credits.

FAMILY LAW ...................... BPL 1910
Prerequisite: BPL 9739 or consent of coordinator of the Paralegal program. Basic substantive law in the area traditionally known as family law will be covered. Specific subjects will be adoption, guardianships, child custody and support, name changes, contested and uncontested divorces. Emphasis on use of court forms, preparation of pleadings and settlement agreements and use of interviewing checklists. Class meets three hours a week. Three credits.

LAW OFFICE SYSTEMS ............ BPL 2175
Prerequisite: BPL 9739 or consent of coordinator of the Paralegal program. Study of the internal functions of the law office or legal department, including personnel matters, office systems such as docketing and time controls, law library maintenance, filing systems, financial and accounting management and office equipment. Class meets three hours a week. Three credits.

COMMERCIAL TRANSACTIONS ...... BPL 9918
Prerequisite: BPL 9739 or consent of coordinator of Paralegal program. Study of the basic principles of personal property and contracts with emphasis on documents and forms related to sales and credit transactions. Includes preparation of business and commercial documents and the application of provisions of the Uniform Commercial Code. Class meets three hours a week. Three credits.

PHOTOGRAPHY

PHOTOGRAPHY I .................. HPH 5555
Basic processes and principles. Theory and practice of photography as an essential tool of the visual communicator. Emphasis on development of competence in the use of photographic equipment and materials. Topics include cameras, light meters, films, developing negatives, printing, filters, chemicals and presentation. Students must provide their own camera with adjustable focus, shutter speeds and aperture. Class meets for three hours of lecture/demonstration and three hours of lab each week. Three credits.

PHOTOGRAPHY II ................ HPH 6666
Prerequisite: HPH 5555. Emphasis will be on the development of professional standards of photographic technique and image quality. Topics include view camera, "zone system" of exposure and development control, natural light photography, architectural photography, advanced darkroom techniques, chemistry and toning. Class meets for three hours of lecture/demonstration and three hours of lab each week. Three credits.

PHOTOGRAPHY III ................ HPH 3880
Prerequisite: HPH 5555. Emphasis on commercial photography applications, including artificial light, theory and techniques of photoflood and flash equipment. In addition, course will deal with color temperature, copy work, portraiture, product illustration, color slide and still life as well as view camera techniques in the studio. Class meets for three hours of lecture/demonstration and three hours of lab each week. Three credits.
COLOR TRANSPARENCIES .......... HPH 5481
Prerequisite: HPH 5555. Theory and practice of the materials, camera techniques, processing and various applications of 35mm color slides. Emphasis on use of color slides in audio-visual presentations, documentation, commercial illustration, travel photography and other communication. Students must supply their own 35mm camera with adjustable shutter, aperture and focus, as well as film, slide mounts and carousel slide trays. Class meets for two hours lecture/demonstration and two hours of lab each week. Two credits.

PHYSICAL DEVELOPMENT

INTRODUCTION TO PHYSICAL EDUCATION .................. PD 6340
Principles of health and physical education, history, philosophy, theory and practice. Class meets three hours a week. Three credits.

CONCEPTS IN PHYSICAL DEVELOPMENT ........ PD 4055
A study and application of physical fitness principles. A personal analysis of physical condition and a program of physical exercise and sport enables student to develop a personal fitness schedule. Class meets three hours a week. Three credits.

ELEMENTARY PHYSICAL EDUCATION ........ PD 1028
This course is designed to prepare elementary teachers to plan and evaluate a physical education program for their class. The first part will help develop an understanding of basic skill development and locomotion patterns. The second part will deal with the nature of play and elementary physical education curriculum planning. Class meets three hours a week. Three credits.

INDIVIDUAL LIFETIME SPORTS .......... PD 4291
Group instruction and practical experience in badminton, racquetball and tennis. Emphasis on planning and organization of these lifetime sports in a recreation setting. Class meets three hours a week. Two credits.

PERSONAL HEALTH AND COMMUNITY

HYGIENE .................. PD 4368
Problems of maintaining good health. Topics include exercise and fitness, drug abuse, emotional health, proper nutrition, alcohol, tobacco, chronic and communicable diseases, human sexuality and consumer health. Special emphasis on the individual's relationship concerning community health. Class meets three hours a week. Three credits.

FIRST AID .................. PD 2711
American Red Cross Certification in standard first aid and personal safety. Cause, prevention and first aid care of common emergencies. Red Cross Certification also given in cardiopulmonary resuscitation. Class meets three hours a week. Three credits.

PREVENTION OF SPORTS INJURY ...... PD 5712
Fundamentals of athletic training techniques with emphasis on prevention of sports injuries, rehabilitation and taping techniques and proper nutrition. Information is for both the competitive and recreational athlete. Upon successful completion of the course the student will receive Cramer Certification as a student trainer. Class meets three hours a week. Three credits.

FUNDAMENTALS OF ATHLETICS ...... PD 4146
Analysis of techniques involved in sport performance based on the application of biomechanics. The first part investigates the basic locomotor and skill development patterns. The second part studies the refinement of those patterns for specific sport skills with emphasis on areas where there are disagreements among teachers and coaches. Class meets three hours a week. Two credits.

FUNDAMENTALS OF BASKETBALL ... PD 1153
Fundamentals of offensive and defensive basketball, individual and team play, and strategy and rules. Class meets three hours a week. Two credits.

FUNDAMENTALS OF BASEBALL (BEGINNING) ............. PD 1727
Introduction to the fundamental skills of baseball for the prospective player, coach or spectator. Class meets five hours a week. Three credits.

FUNDAMENTALS OF BASEBALL (INTERMEDIATE) .......... PD 4735
Intermediate fundamental skills of baseball for the prospective player, coach or spectator. Class meets five hours a week in gymnasium or baseball field. Three credits.

FUNDAMENTALS OF POWER VOLLEYBALL
(BEGINNING) .................. PD 1723
Designed to teach fundamental skills and strategy of power volleyball. Emphasis will be on the basic skills of the forearm pass, overhead set, serve and spike. Elementary offense and defense will be taught. Class meets two hours a week. One credit.

FUNDAMENTALS OF POWER VOLLEYBALL
(INTERMEDIATE) ........ PD 6736
Designed to teach intermediate and advanced skills and strategy of power volleyball. Emphasis will be on individual refinement of volleyball skills. Multiple offenses and advanced defenses will be taught. Class meets two hours a week. One credit.
FALL SPORTS OFFICIATING ............... PD 7168
Knowledge and interpretation of the rules governing football, volleyball, soccer and basketball. Helpful to spectators as well as officials. Class meets three hours a week. Two credits.

SPRING SPORTS OFFICIATING ........ PD 6061
Knowledge and interpretation of the rules governing basketball and baseball. Helpful to spectators as well as officials. Class meets three hours a week. Two credits.

PHYSICAL DEVELOPMENT ............ PD 1472
A brief review of fundamentals and rules with emphasis on playing. Activities consist of softball, tennis, racquetball, volleyball and basketball. Class meets two hours a week. One credit.

RUNNING AWARENESS AND EXERCISE. PD 1829
Designed to fulfill students' need to exercise and improve their cardiovascular fitness. The course will cover proper mechanics for running (sprint and long distance, breathing techniques, physiology during running), training and exercise benefits, warm-up and warm-down. Class meets two hours a week. One credit.

PHYSICAL FITNESS THROUGH DANCE (BEGINNING) ............. PD 1058
A planned, progressive fitness program designed to improve muscle tone, body contour and flexibility through the utilization of modern dance techniques. The student will learn qualities of movement and be responsible for a creative, interpretive dance. Class meets two hours a week. One credit.

PHYSICAL FITNESS THROUGH DANCE (INTERMEDIATE) .......... PD 4296
An intermediate modern dance course for the student who wants to continue learning from Beginning Physical Fitness Through Dance. Students will compose numerous and varied dances throughout the semester. Class meets two hours a week. One credit.

KARATE (BEGINNING) ................. PD 7279
Introduction to the fundamentals of karate, including history, basic punches, blocks, kicks and self-defense techniques. Class meets two hours a week. One credit.

KARATE (INTERMEDIATE) ............ PD 2728
After learning the formalities and basics in the beginner's class, the student puts the basic techniques into routines. The class also covers combination techniques and defense techniques. Class meets two hours a week. One credit.

FENCING ......................... PD 6499
Individualized instruction of rules, fundamentals and history of the sport. Class meets two hours a week. One credit.

WEIGHT TRAINING AND PHYSICAL FITNESS (BEGINNING) .......... PD 1020
Involves development of the cardiovascular system as well as overall fitness. Includes identification and function of the muscles and how to plan an overall conditioning program suited for the individual. Class meets two hours a week. One credit.

WEIGHT TRAINING AND PHYSICAL FITNESS (INTERMEDIATE) ........ PD 1025
Involves increased development of the cardiovascular system as well as overall fitness. Includes a plan for a continued overall conditioning program suited for the individual. Class meets two hours a week. One credit.

RACQUETBALL (BEGINNING) ........ PD 1010
A brief history of rules and terminology of racquetball followed by instruction and practice in fundamentals. Class meets two hours a week. One credit.

RACQUETBALL (INTERMEDIATE) ........ PD 1016
Introduction to advanced skills and the strategy of the game of racquetball and various patterns of plays. Class meets two hours a week. One credit.

GOLF ................................ PD 3235
Individualized instruction of rules, fundamentals and history of the sport. Includes proper use of clubs and courtesies of the game. Class meets two hours a week. One credit.

BOWLING (BEGINNING) .............. PD 1008
Introduction and practice in fundamentals of bowling. Brief history of the sport plus selection, care and proper use of bowling equipment. Class meets two hours a week. One credit.

BOWLING (INTERMEDIATE) .......... PD 1009
Introduction to advanced skills of league bowling and a review of the terminology, etiquette and scoring of bowling. Class meets two hours a week. One credit.
ARCHERY .......................... PD 7129
Individualized instruction of rules, fundamentals and history of the sport. Includes survey of the origin of archery and how to select and take care of equipment. Class meets two hours a week. One credit.

HORSEMANSHIP .................. PD 7438
General care of horse and equipment. Mounted session includes riding on the flat and over fences. Class meets two hours a week. One credit.

GYMNASTICS ..................... PD 4536
Individualized instruction in tumbling, side horse, even and uneven parallel bars, balance beam and trampoline for the student with little or no experience. Class meets two hours a week. One credit.

WRESTLING ....................... PD 4257
Individualized instruction of rules, fundamentals and history of the sport. Practice area scheduled by arrangement. One credit.

SOCCER .......................... PD 1012
Introduction to the basics and some of the advanced skills of the game. General picture of tactics commonly used. Class meets two hours a week. One credit.

TENNIS (BEGINNING) ............ PD 1017
Individualized instruction of rules, fundamentals and history of the sport. Class meets two hours a week. One credit.

TENNIS (INTERMEDIATE) ....... PD 1018
Designed to improve the fundamental skills of tennis and introduce the student to various patterns of play. Class meets two hours a week. One credit.

CHEERLEADING AND YELL LEADING (BEGINNING) ........ PD 1026
Basic instruction in the fundamentals of cheerleading and yell leading. Includes work with a partner. Cheerleaders and yell leaders represent the College in community activities. Class meets two hours a week from October to March. One credit.

CHEERLEADING AND YELL LEADING (INTERMEDIATE) ........ PD 1027
For students who have taken Beginning Cheerleading. Additional responsibilities include making up original cheers and presenting them to the group. They will also work closely with the instructor in planning and coordinating activities. Class meets two hours a week from October to March. One credit.

BEGINNING BALLET .............. PD 2655
Introduction to the fundamentals of ballet. Attention given to terminology, skills and participation. Class meets two hours a week. One credit.

PHYSICAL SCIENCE ............... NPS 1031
Fundamental concepts and principles of physics, chemistry and astronomy to meet laboratory science requirements for the non-science major. Topics include the metric system, electricity and magnetism, modern physics and chemical bonding. Two hours of lecture and four to six hours of modularly-scheduled lab activity a week. Four credits.

ASTRONOMY ....................... NPS 6070
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 possibilities of life on other places. Class meets four hours a week plus five nighttime telescope sessions scheduled as weather permits. Four credits.

GENERAL GEOLOGY ............... NPS 4858
A survey of the planet Earth with an emphasis on the processes that have shaped and continue to shape our world. Topics include the interrelations of humans and the environment, the location and economics of minerals, petroleum and other natural resources, and the geology of the moon and Mars. Class meets seven hours a week. Five credits.

PRINCIPLES OF CHEMISTRY ........ NPS 6634
Introduction to the fundamental concepts of chemistry. Emphasis on general concepts of inorganic chemistry, with sufficient study of organic chemistry to introduce the student to biochemistry. Class meets six hours a week. Five credits.

PRINCIPLES OF ORGANIC CHEMISTRY .... NPS 2650
Prerequisite: One semester of college-level chemistry. Introduction to aliphatic and aromatic compounds with emphasis on application to biochemistry and related fields. Nomenclature, principles and basic theories of organic chemistry. Class meets seven hours a week. Five credits.
GENERAL CHEMISTRY I LECTURE .......... NPS 4515
Prerequisite: MTH 6079 or equivalent and concurrent enrollment in General Chemistry I Laboratory or division director's approval. Enables student to 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. In light of bonding concepts, these abilities will be demonstrated on tests. Class meets four hours a week. Four credits.

GENERAL CHEMISTRY I LAB ............ NPS 4516
Prerequisite: MTH 6079 or equivalent and concurrent enrollment in General Chemistry I Lecture or division director's approval. The student's understanding of bonding concepts, solutions, gas laws and stoichiometry will be demonstrated in the laboratory. Class meets three hours a week. One credit.

GENERAL CHEMISTRY II LECTURE ....... NPS 4455
Prerequisite: NPS 4515 (General Chemistry I). Presentation of oxidation-reduction, basic organic, chemical thermodynamics, electrochemistry and equilibrium. Class meets four hours a week. Four credits.

GENERAL CHEMISTRY II LAB .......... NPS 4456
Prerequisite: NPS 4455 (General Chemistry II Lecture) or concurrent enrollment or division director's approval. The laboratory consists of experiments supportive to General Chemistry II Lecture with emphasis on quantitative techniques. Class meets three hours a week. One credit.

ORGANIC CHEMISTRY I ............... NPS 2637
Prerequisite: NPS 4455 and 4456. The nomenclature, principles and theories of organic chemistry with emphasis on electronic theories and reaction mechanisms. Laboratory is supportive and emphasizes developing lab techniques and preparation of representative compounds. Class meets nine hours a week. Fall, five credits.

ORGANIC CHEMISTRY II .............. NPS 3657
Prerequisite: NPS 2637. Continuation of Organic Chemistry I. Includes an introduction to organic qualitative analysis. Class meets nine hours a week. Spring, five credits.

GENERAL PHYSICS I .................. NPS 3308
Prerequisite: MTH 6079 or equivalent. Introductory survey of selected topics in physics including motion, energy, matter, heat, electricity, magnetism and waves. Fall, four credits.

GENERAL PHYSICS II ................. NPS 4356
Prerequisite: NPS 3308. Continuation of General Physics I. Subjects include electricity and magnetism, light, relativity, atomic structure and quantum mechanics. Class meets for three hours of lecture and three hours of lab each week. Spring, four credits.

ENGINEERING PHYSICS I ............. NPS 5212
Corequisite: MTH 4313. Introduction to physics for science and engineering students. Emphasis is on mathematical approaches to the study of mechanics, wave motion and thermodynamics. Class meets for four hours of lecture and three hours of lab each week. Fall, five credits.

ENGINEERING PHYSICS II ............ NPS 5238
Prerequisite: NPS 5212. Continuation of Engineering Physics I (NPS 5212), with emphasis on electricity and magnetism, light, and topics in modern physics. Class meets for four hours of lecture and three hours of lab each week. Spring, five credits.

INTRODUCTION TO QUANTITATIVE ANALYSIS ............... NPS 5337
Prerequisite: NPS 5278. An introduction to concepts of acid-base, chromatography, coulometry; equilibrium, oxidation-reduction and spectrophotometry as they apply to quantitative chemical analysis. Lab consists of supportive experiments designed to introduce the student to modern quantitative experimental techniques. Class meets nine hours a week. Five credits.

PHYSICAL THERAPY

FUNDAMENTALS OF PHYSICAL THERAPY .......... NPT 9771
Prerequisite: NPT 9770. The student will understand basic medical terminology, description of modalities and therapeutic measures used in the physical treatment of various injuries and diseases. Emphasis on departmental organization and orientation to position duties and job opportunities. Through field trips, the student will be exposed to actual hospital and clinical facilities. Clinical lab will allow the student to be introduced to the practical application of all modalities used in the physical therapy clinic. Two hours of lecture and two hours of lab a week. Three credits.

REHABILITATION ................. NPT 9774
Prerequisite: NPT 9771. Introduction to the philosophy underlying rehabilitation, and the theory and principles involved in normal and abnormal ambulation and mobility. Emphasis will be on external supports used in teaching activities of daily living with attention to description, demonstration and practice with various appliances and devices necessary to assist the disabled. Two hours of lecture and four hours of lab a week. Four credits.

KINESIOLOGY ..................... NPT 9772
Prerequisite: NLS 6540. The student will analyze muscles and their function, biomechanics of human motion and activities of joints, and functions of the musculoskeletal system. Four hours of lecture a week. Four credits.
INTRODUCTION TO PHYSICAL THERAPY

Prerequisite: NPT 9770
Introduction to sociological principles, practices and concepts with emphasis on groups, culture, personality, society, communication, cities, social institutions, family, religion, government, social change, social control and social progress. It will include field trips to various local physical therapy departments for a practical observation of the specific health field. Two hours of lecture a week. Two credits.

THERAPEUTIC EXERCISE

Prerequisite: NPT 9775
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 contraindications for use. The student will be assigned to various local hospital physical therapy departments to observe the practical application of therapeutic modalities and will actively participate in the application of specific therapeutic modalities. Three hours of lab and six hours of lecture a week. Five credits.

CLINICAL PATHOLOGY

Prerequisite: NPT 9776
The study of general pathology with emphasis on diseases and disease processes. Three hours of lecture a week. Three credits.

THERAPEUTIC MODALITIES

Prerequisite: NPT 9773
The student will receive supervised clinical experience in the observation and practical application of the techniques and procedures covered in all previous courses with emphasis on assisting physical therapist in the treatment procedures in a variety of clinical settings. Nine hours of clinic a week. Three credits.

CLINICAL EXPERIENCE II

Prerequisite: NPT 9779
The student will review practical application of principles learned in the prior didactic semesters. The student will also experience rotating internship in selected hospitals throughout the greater Kansas City area under the guidance of a Registered Physical Therapist. Three hours of clinic a week. Eleven credits.

CLINICAL SEMINAR II

Prerequisite: NPT 9779
The student will participate in formal discussions related to the experience and progress of the participants in the total clinical area with emphasis on review of techniques, procedures and modalities. Two hours of lecture a week. Two credits.

RADIOLOGY

MEDICAL AND RADIOLOGY TERMS

Prerequisite: Admission to the program
Study of medical terminology with emphasis on the practical application of terms relating to radiology procedures. Specific emphasis on technical terminology. Class meets three hours a week. Three credits.

RADIOLOGIC TECHNOLOGY I

Prerequisite: Admission to the program
Study of radiology, radiation protection and monitoring, professional attitudes and applied medical ethics. Major emphasis will be on nursing procedures related to patient care in the Radiology Department. Class meets three hours a week. Three credits.

RADIOGRAPHIC EXPOSURES I

Prerequisite: Admission to the program
Covers the principles of radiographic image formation and the factors that affect or control image formation. The student will conduct experiments for reinforcement of the principles covered in this course. Class meets four hours a week. Three credits.

RADIOGRAPHIC POSITIONING I

Prerequisite: Admission to the program
Study of anatomy and positioning for the abdomen, chest, upper and lower extremities. Class meets four hours a week. Three credits.

CLINICAL TRAINING I

Prerequisite: Admission to the program
The student will receive training in performing radiographic examinations. Class meets twenty-six hours a week. Two credits.

RADIOGRAPHIC EXPOSURES II

Prerequisite: NRD 9803
Covers quality control of radiographic images, technic charts, calibration of equipment, standard exposure systems and factors used for conversion of techniques for variables in the exposure systems. Special techniques used in producing
radiographic images also are covered. Class meets four hours a week. Three credits.

CLINICAL TRAINING II . . . . . . . . . . . . . NRD 9807
Prerequisites: NRD 9801, 9802, 9803, 9804, 9805. Consists of training in performing examinations of various parts of the body. Class meets twenty-six hours a week. Two credits.

RADIOGRAPHIC POSITIONING II . . . . . . NRD 9808
Prerequisite: NRD 9804. Covers anatomy and positioning related to the upper and lower GI tracts, genito-urinary and biliary systems, the spine and skull. Class meets four hours a week. Three credits.

RADIOGRAPHIC POSITIONING III . . . . . . . NRD 9809
Prerequisite: NRD 9808. Topics include anatomy and positioning for the skull, sinuses, facial bones and teeth. Class meets four hours a week. Three credits.

RADIOLOGIC TECHNOLOGY II . . . . NRD 9810
Prerequisites: NLS 6186, NRD 9801. The student will study the disease processes of the body and relate them to examination of the patient in the Radiology Department. Class meets three hours a week. Three credits.

PHYSICS OF X-RAY EQUIPMENT . . . . . . NRD 9811
Prerequisites: NPS 3308, NRD 9803, NRD 9806. Application of physics principles to the study of x-ray equipment and other diagnostic imaging devices used in the modern x-ray department. Class meets five hours a week. Four credits.

RADIOGRAPHIC ANATOMY . . . . . . . . . . NRD 9812
Prerequisites: NLS 6186, NRD 9804, NRD 9808, NRD 9809. Application of skills in anatomy and positioning to the study of radiographic anatomy. Class meets five hours a week. Three credits.

DEPARTMENT SEMINAR . . . . . . . . . . NRD 9813
Prerequisites: NRD 9810, 9811, 9812, 9817. The student will prepare for the National Registry examination by taking tests and reviewing materials designed to simulate the A.R.R.T. examination. Class meets three hours a week. Three credits.

SPECIAL PROCEDURES . . . . . . . . . . . . NRD 9814
Prerequisites: NLS 6186, NRD 9804, NRD 9808, NRD 9809, NRD 9812. Study of the anatomy, positioning, equipment and special tasks related to performance of studies of the circulatory, nervous and lymphatic systems. The role of the technologist will be stressed. Class meets three hours a week. Two credits.

CLINICAL TRAINING III . . . . . . . . . . . NRD 9815
Prerequisites: NRD 9806, 9807, 9808. Training in performing examinations of the ribs, cervical, thoracic and lumbar spine, gall bladder, biliary system and retrograde pyelograms and infusion pyelograms using tomography. Class meets thirteen hours a week. One credit.

CLINICAL TRAINING IV . . . . . . . . . NRD 9816
Prerequisite: NRD 9815. The student will perform examinations of the skeletal system. Training opportunities in portable radiography, emergency room techniques and supervised fluoroscopy will be provided. Class meets twenty-six hours a week. Two credits.

CLINICAL TRAINING V . . . . . . . . . . . NRD 9817
Prerequisites: NRD 9809, 9816. The student will examine the bones of the cranium and be assigned to review sessions in areas of study where further skills are required. Class meets twenty-six hours a week. Two credits.

CLINICAL TRAINING VI . . . . . . . . . NRD 9818
Prerequisites: NRD 9810, 9811, 9812, 9817. Students will be assigned extra training in areas of need and be evaluated on their expertise in special procedures. Class meets thirteen hours a week. One credit.

CLINICAL TRAINING VII . . . . . . . . NRD 9819
Prerequisites: NRD 9813, 9814, 9818. Clinical training in the fields of nuclear medicine, radiation therapy and ultrasound. Class meets thirty-nine hours a week. Three credits.

SPECIALTY TRAINING (ELECTIVE) . . . NRD 9820
Prerequisite: Consent of the instructor. Specialized training in one of the following fields: nuclear medicine, ultrasound, radiation therapy, thermography or computer-assisted tomography. Class meets nineteen hours a week. Nine credits.
RECREATIONAL LEADERSHIP

INTRODUCTION TO RECREATIONAL SERVICES .............................................. PRL 5298
Historical and philosophical foundations of leisure and recreational activities. Emphasis on socio-economic movements, economic importance of recreation and social institutions which provide recreational services. Class meets three hours a week. Three credits.

SOCIAL RECREATION ................. PRL 2459
Planning, programming and conducting social recreation activities for clubs, churches, schools, playgrounds and recreation centers. Ample opportunity for developing individual strengths and understanding. Class meets three hours a week. Two credits.

OUTDOOR RECREATION ............ PRL 7164
History, development and trends of outdoor recreation, conservation and organized camping. Laboratory work, field trips and development of outdoor skills. Class meets three hours a week. Three credits.

RECREATIONAL FIELD STUDY ........ PRL 1379
Application and study of the basic skills a recreation leader needs, including observation and actual experience. Emphasis on coordinating classroom knowledge with recreation and therapeutic situations in the community. Class meets for a one-hour weekly seminar. A minimum of 15 hours supervised laboratory experience by arrangement in an area agency, hospital or institution. Three credits.

INTRO. TO THERAPEUTIC RECREATION ............................................ PRL 2571
A basic course in recreation for the ill and handicapped to acquaint the student with the recreational needs of special-population groups. Emphasis will be on various types of settings in which therapeutic recreation is available. Appropriate types of activities will be given for different disabilities with both instructor demonstration and class participation. Class meets three hours a week. Three credits.

RESPIRATORY THERAPY

BEGINNING PRINCIPLES OF RESPIRATORY THERAPY ................................. NRT 3370
Prerequisite: Admission to the Respiratory Therapy Program. Introduces the student to the field of respiratory therapy and to the hospital world. Involves basic anatomy, physiology, pathophysiology and respiro-therapy techniques necessary to begin giving patient care to pulmonary disease patients. Patient contact will be encountered after the first two or three weeks of introductory material. Lab time also is involved for mastery of patient care skills. Class meets for six hours of lecture and sixteen hours of lab each week. Summer, four credits.

RESPIRATORY THERAPY EQUIPMENT .................................................... NRT 3371
Prerequisite: Admission to the Respiratory Therapy Program. Introduces the student to much of the equipment used in providing basic patient care. Includes equipment for oxygen therapy, aerosol therapy, IPPB. A substantial amount of time is spent in the lab to acquire hands on experience with equipment prior to actual use in the patient care setting. Class meets for six hours of lecture and eight hours of lab each week. Summer, four credits.

CARDIOPULMONARY MEDICINE I ....... NRT 3372
Prerequisite: Admission to the Respiratory Therapy Program. First of three courses lectured by the medical director of the program. An introduction to diagnostic procedures used by the pulmonary physician in evaluating patients with respiratory disease. Also provides information on the pathology of disease states that the student will encounter. Class meets for two hours of lecture each week. Summer, one credit.

CLINICAL CARDIOPULMONARY PHYSIOLOGY .......................................... NRT 3373
Prerequisite: Successful completion of summer sequence of respiratory therapy courses. A comprehensive study of the physiology and pathophysiology of the pulmonary system, the cardiovascular system and the renal system as they relate to the practice of respiratory therapy. Fundamental to the understanding of disease processes and provides a rationale for much of the therapy the respiratory therapist provides. Class meets four hours a week. Fall, four credits.

CLINICAL PRACTICE I ................... NRT 3374
Prerequisite: Successful completion of summer sequence of respiratory therapy courses. The clinical activities are divided into two quarters. The first eight-week period will concentrate on giving basic care to both adults and pediatric patients as well as learning how to perform arterial punctures and pulmonary function studies. The second eight weeks emphasis will shift toward critical care medicine with treatments being given in the intensive care unit, and introductory work being done with mechanical ventilators. Also during the semester, students will learn to intubate under the guidance of anesthesia personnel and will go on rounds with the medical director of the program. Class meets 24 clinic hours each week. Fall, four credits.
SECRETARIAL CAREERS

BEGINNING TYPING ............... BSC 1263
Mastery of the keyboard and machine techniques. Instruction in personal and business letters, outlines, manuscripts, tabulation and centering. Individualized instruction and scheduled use of secretarial laboratory. Class meets three hours a week. Students should schedule two hours of lab a week. Three credits.

INTERMEDIATE TYPING ............ BSC 2376
Prerequisite: BSC 1263 or by permission. Emphasis on speed and accuracy in typing business letters, memoranda, tabulated reports and financial reports. Periodic production and performance tests. Individualized instruction and scheduled use of secretarial laboratory. Class meets three hours a week. Students should schedule two hours of lab a week. Three credits.

PRODUCTION TYPING ............. BSC 7633
Prerequisite: BSC 2376 or by permission. Development of high degree of proficiency in production typing. Emphasis on typing in specialized offices such as medical, legal, governmental. Individualized instruction and scheduled use of secretarial laboratory. Class meets three hours a week. Lab meets two hours a week. Three credits.

SHORTHAND I ................. BSC 1519
Prerequisite: BSC 1263 or concurrent enrollment. Beginning course of intensive study of shorthand theory and how to write simple unpreviewed material in shorthand at a speed of 50 to 60 words a minute. Class is instructor-directed but includes individualized use of tapes and programmed materials. Class meets three hours a week with a required lab two hours a week. Three credits.
SHORTHAND II ....................... BSC 4590
Prerequisites: BSC 1263 and BSC 1519 or by permission.
Designed for students with prior limited experience with shorthand. Review of shorthand theory, transcription techniques, spelling, punctuation and grammar through use of tapes and programmed materials. Class meets three hours a week with a required lab two hours a week. Three credits.

DICTATION AND TRANSCRIPTION .... BSC 3630
Prerequisite: BSC 3630, 4590, 2376 or by permission.
Emphasis on increased speed and accuracy in writing shorthand from dictated material and transcribing notes. Class is instructor-directed but includes individualized programmed materials. Student works at own ability level. Class meets three hours a week with a required lab two hours a week. Three credits.

RECORDS MANAGEMENT ............... BSC 1342
Alphabetic, numeric, subject and geographic filing systems. Provides a foundation of general office routines and efficient methods and systems of storing and retrieving information. Includes survey of various types of office filing equipment. Class meets three hours a week. Three credits.

MEDICAL TRANSCRIPTION ............. BSC 4715
Prerequisite: BSC 2376. A course designed to develop transcription techniques to create accurate medical records. Contains six study units, individualized instruction with periodic exams and transcription tests. Class meets three hours a week with a required lab two hours a week. Three credits.

LEGAL SECRETARY .................. BSC 2267
Topics recommended by the National Association of Legal Secretaries. General overview of the field of law as it applies to a legal secretary. Students wishing to prepare for the PLF examination should consult with the instructor prior to enrollment. Class meets two hours a week. Two credits.

SECRETARIAL PROCEDURES .......... BSC 1272
Prerequisites: BSC 2376 and BSC 1519 or concurrent enrollment. Designed to develop a secretarial personality and occupational intelligence through an introduction to all phases of an office situation. Topics include the secretarial profession; word processing; responsibilities for written communications; transmission services; records management; travel and conferences; collecting, processing and presenting business data; financial and legal work; and the professional future. Class meets three hours a week. Three credits.

SECRETARIAL PROCEDURES II ...... BSC 2317
Prerequisite: BSC 1272. Application of theory presented in Secretarial Procedures I using simulated office experience and projects. Content areas: meetings and conferences, travel arrangements, letter writing, supervision of others, reproduction equipment and services, seeking and terminating employment. The student may choose to follow a medical, legal or general presentation of secretarial procedures. Course includes scheduled use of the secretarial laboratory. Class meets three hours a week. Three credits.

SECRETARIAL FIELD STUDY I ........ BSC 4492
Supervised student work experience in an approved office situation. Class meets two hours a week. A minimum of 15 hours on-the-job training a week by arrangement. Three credits.

SECRETARIAL FIELD STUDY II ...... BSC 3214
Supervised work experience in an approved office situation. Class meets two hours a week. A minimum of 15 hours on-the-job training a week by arrangement. Three credits.

SECRETARIAL FIELD STUDY III ...... BSC 5538
Supervised work experience in an approved office situation. Class meets two hours a week. A minimum of 15 hours on-the-job training a week by arrangement. Three credits.

SECRETARIAL FIELD STUDY IV ...... BSC 2190
Supervised work experience in an approved office situation. Class meets two hours a week. A minimum of 15 hours on-the-job training a week by arrangement. Three credits.

SECRETARIAL FIELD STUDY V ...... BSC 1075
Supervised work experience in an approved office situation. Class meets two hours a week. A minimum of 15 hours on-the-job training a week by arrangement. Three credits.

TYPING I: SHORT COURSE ............ BSC 1960
Designed to acquaint the student with the keyboard and offer a variety of experiences in the basic skills of typing. Class/lab meets four hours a week. Two credits.
SHORTHAND REFRESHER: SHORT COURSE

BSC 3018
Review of theory and vocabulary. Emphasis on increasing speed in the writing of shorthand. Class meets one hour a week. One credit.

ELECTRONIC CALCULATORS

BSC 5190
The student will apply the fundamental operations of arithmetic and ten key applications to business problems on electronic printing calculators. This functional knowledge includes using proper techniques in the basic operations, interpreting the answers and recording the answers thus enabling the student to develop a high degree of proficiency in touch operation, speed and accuracy; performing the basic functions; and solving application problems. Class meets one hour a week, and one hour of lab should be scheduled. One credit.

MACHINE TRANSCRIPTION

BSC 5189
Prerequisite: BSC 2376 or by permission. Extensive use of dictation equipment learning transcription skills needed for efficient transcribing of all business letters, memos and technical reports. Language skills will be developed through correct word division, punctuation and number transcription exercises. Special topics such as news releases, agenda and minutes, medical and legal terminology as well as other specialized fields will be studied. Class meets three hours a week. Students will schedule two hours a week lab time. Three credits.

AUTOMATIC TYPEWRITERS

BSC 5188
Prerequisite: BSC 2376 or by permission. Automatic Typewriters offers extensive use of the IBM Memory and Mag Card II typewriters. The students will develop a high degree of proficiency in the operation of these two machines. Class meets two hours a week. Students will schedule two hours a week lab time. Two credits.

SMALL ANIMAL HEALTH

INTRODUCTION TO ANIMAL TECHNOLOGY

NAT 4894
Orientation to career opportunities available in animal health technology. Professional ethics, public relations, psychological adjustment of the student to physical treatment and emotional involvement in the treatment and care of animals. Emphasis on understanding the justifications and purposes for euthanasia, venapuncture, injections, animal sterilization and the development of appropriate attitudes toward research animals. Class meets two hours a week. Two credits.

PRINCIPLES OF ANIMAL SCIENCE I

NAT 6897
Principles of handling and management of animals, nutrition, housing and sanitation. Emphasis on animal physiology and body responses. Introduction to anesthesia and management of hospital cases. Methods of treatment, restraint, determination of body temperature, pulse and respiration, bathing and grooming. Class meets four hours a week. Three credits.

PRINCIPLES OF ANIMAL SCIENCE II

NAT 3899
Techniques of obtaining animal samples for laboratory analysis. Surgery preparations and anesthetic management of animals. Emphasis on effects of anesthetics and physiology of body systems not covered in Animal Science I. Class meets four hours a week. Three credits.

ANIMAL TECHNOLOGY ANATOMY

NAT 4904
Basic principles of systemic anatomy with integration of physiology, pharmacology, pathology and parasitology within the framework of animal body systems. Class meets seven hours a week. Five credits.

SANITATION AND ANIMAL CARE

NAT 1895
Cleaning and sanitation, personal hygiene, vermin recognition, control and cleaning of cages and equipment, general care and supervision of hospital patients or colonies, preparation of diet, proper feeding of animals, preparation of work routines and standard daily operating procedures. Class meets three hours a week. Two credits.

ANIMAL HOSPITAL TECHNOLOGY I

NAT 5903
Preparation and administration of hypodermic injections, administration of vaccines, colonic irrigations, application and changing of wound dressings, preparation and administration of parenteral fluids, substances by the oral route, intravenereal infusions, intramammary gland infusions, and other mastitis therapy. Administration of anesthetics and assisting surgeon during operations. Techniques of radiographic film processes utilizing mockups and training aids. Sterilization of food, animals, artificial insemination of animals, dehorning procedures, and recommended immunization procedures and costs. Class meets five hours a week. Three credits.

LABORATORY ANIMAL TECHNOLOGY

NAT 3905
Prerequisites: NAT 6897, 3899, 2901. To equip the student with the capabilities of handling a supervisory position in a laboratory animal colony. Class meets three hours a week. Two credits.

ANIMAL HOSPITAL TECHNOLOGY II

NAT 6906
Emphasis on surgery techniques. Cooperative hospital experience. Class meets five hours a week. Three credits.
CLINICAL PATHOLOGICAL TECHNIQUES I 

NAT 2901
Hematology and procedures involved with performing blood analysis. Class meets seven hours a week. Four credits.

CLINICAL PATHOLOGICAL TECHNIQUES II 

NAT 7907
Emphasis on urinalysis, blood analysis, simple immunological tests, fecal analysis and the preparation of smears and simple staining techniques on microbiological specimens and tissue impressions. Class meets eight hours a week. Five credits.

LARGE ANIMAL TECHNOLOGY 

NAT 9908
Prerequisites: NAT 6997 and NAT 3899. To familiarize students with their functions in a large animal or mixed-type practice. Course will broaden their capacities by enabling them to work in a research facility that uses large animals for experimentation. Class meets six hours a week. Four credits.

RADIOLOGY AND ELECTRONIC PROCEDURES 

NAT 8999
Intensive study and practice in radiological techniques and study of cardiology and ultrasonic sound procedures. Class meets three hours a week. Two credits.

ANIMAL HEALTH INTERNSHIP 

NAT 1902
Prerequisite: Two semesters of first-year animal health courses. Supervised intensive clinical study under the direction of a cooperating veterinarian to provide actual work experience. 420 work hours. Six credits.

CLINICAL MATH 

NAT 7896

SOCIAL SCIENCES

INTRODUCTION TO PSYCHOLOGY 

SS 1068
Introduction to the basic concepts and methods of general psychology. Covers the brain and consciousness, sensation and perception, motivation, learning and memory, maturation and development, personality, and social psychology. This course is a prerequisite for all other courses in psychology. Class meets three hours a week. Three credits.

CHILD DEVELOPMENT 

SS 3546
Prerequisite: SS 1068. A comprehensive chronological account of human psychological and physical development from conception through adolescence. The course integrates genetic, biological, physiological and anthropological influences with the psychological process. Explores determinants of development from both hereditary and environmental perspectives. Twenty hours of practicum in a structured setting where children are present is required. Class meets three hours a week. Three credits.

EDUCATIONAL PSYCHOLOGY 

SS 3148
Prerequisite: SS 1068. Application of principles of psychology to problems in learning-teaching situations. Study of behavior, attitudes, skills, retention and transfer. Ability and achievement measurement techniques. Practicum in an educational or other structured setting is required. Class meets three hours a week. Three credits.

SOCIAL PSYCHOLOGY 

SS 5663
Prerequisite: SS 1068. An introduction to the psychology of social behavior. A systematic attempt to understand how the thoughts, feelings and behavior of individuals are influenced by the actual, imagined or implied presence of others. Topics include methodology, attitude and attitude change, aggression, leadership, affiliation, obedience and conformity. Class meets three hours a week. Three credits.
PERSONALITY AND ADJUSTMENT . . . . SS 4639
Prerequisite: SS 1068. A study of three theoretical systems in psychology: Freudian, behavioral and humanistic. Emphasis on the material each system offers for adjustment to everyday problems. Topics include basic human nature, personality development, assertiveness, aggression, stress reduction, relaxation, sexism, racism and career development. Class meets three hours a week. Three credits.

GROUP PROCESSES . . . . . . . SS 2725
Prerequisite: SS 1068. A psychology course that focuses on group interaction. Includes the study of theoretical approaches to group interaction, with students active in the process of group communication. Explores productive and counterproductive communication in verbal and nonverbal form. Class meets three hours a week. Three credits.

HUMAN POTENTIAL SEMINAR . . . . SS 2002
A structured, positive group experience designed to increase self-affirmation, self-motivation, self-determination and empathetic regard for others. Includes recall of peak and mini-peak experiences, acknowledgment and analysis of achieving satisfaction and success, clarification of personal values, acknowledgment of personal strengths and long-range goal setting. Regular attendance is imperative. Class meets three hours a week. Three credits.

CAREER/LIFE PLANNING . . . . SS 7227
A systematic approach to career/life planning. Focuses on a process enabling individuals to make occupational decisions at any point in their lives. Class meets three hours a week. Three credits.

SOCIOLOGY . . . . . . . . . . . SS 3404
An overview of social life in America and the global community today. Covers group structure and processes, social interaction, and an examination of major institutions. Theories and methods of study are introduced, as well as the uses of social research. Class meets three hours a week. Three credits.

SOCIAL WELFARE . . . . . . SS 4122
Introduction to social welfare and its relationship with other social systems in America. Considers the social, economic and political factors that foster inequality and explores the various aims, approaches and forms of social welfare as a response to social deprivation. Class meets three times a week. Three credits.

SOCIAL PROBLEMS . . . . . SS 3428
Current U.S. social problems are analyzed from a variety of sociological perspectives. Emphasizes the history and development of the problems and considers solutions. Class meets three hours a week. Three credits.

MARRIAGE AND THE FAMILY . . . . SS 5716
An examination of the institutions of marriage and family in the United States. Emphasis on human sexuality, changing roles, family formation, socialization, domestic conflict, interaction among family members and marriage partners, and the relationships between these institutions and society. Class meets three hours a week. Three credits.

PHYSICAL ANTHROPOLOGY . . . . SS 3721
Study of basic concepts and research areas in physical anthropology. Examines archeology, human variation, physical evolution, primate societies and the emergence of human society. Application to cross-disciplinary topics of general and career interest. Class meets three hours a week. Three credits.

TRANPERSONAL PSYCHOLOGY . . . . SS 9022
Prerequisite: SS 1068. An introduction to an emerging force in psychology that deals with ultimate human potentialities and capacities beyond our usual state of consciousness. These experiences are not adequately considered in psychoanalytic, behavioristic or humanistic psychology. Covers assumptions, consciousness, mystical experiences, spirit, maximum interpersonal encounter, ultimate values, ultimate meanings, the sacralization of everyday life. Class meets three hours a week. Three credits.

CULTURAL ANTHROPOLOGY . . . . SS 1029
Study of peoples and cultures around the world. The political, economic, religious, family and social arrangements of major geographic regions will be surveyed. Examines hunters, tribesmen, peasants and industrial populations in historical context and in their contemporary settings. Class meets three hours a week. Three credits.
POLITICAL SCIENCE .......... SS 1456
An introduction to the concepts, ideologies, political processes and organizational structures fundamental to the study of government. Class meets three hours a week. Three credits.

U.S. HISTORY TO 1877 .............. SS 1055
A survey course in American history. Investigates American society from the early colonial era to the period of the Civil War. Topics include the Puritans, the American Revolution, the Federalists, the Jacksonians and sectional conflicts. Emphasis on analysis and discussion of the different interpretations of issues in American history. Class meets three hours a week. Three credits.

U.S. HISTORY SINCE 1877 ........ SS 2000
A survey course in American history. Investigates American society from the Reconstruction period to the present. Topics include industrialization, immigration, reform movements and the two World Wars. Emphasis on analysis and discussion of the different interpretations of issues in American history. Class meets three hours a week. Three credits.

INTRODUCTION TO COMPARATIVE GOVERNMENT .......... SS 5852
Prerequisite: SS 1456 or permission. Introduction to the comparative study of government. Ideology, socioeconomic characteristics, patterns of governmental organization and administration, party structure and electoral mechanisms will be examined in competitive and non-competitive political systems, industrially-developed and industrializing nations, and Western and non-Western nations. Class meets three hours a week. Three credits.

STATE AND LOCAL GOVERNMENT .... SS 2678
Survey of theories and practices of state and local governments throughout the United States. The Kansas models in particular will be studied. Major topics are structure of these governments, intergovernmental relations, types of services, the taxing and budgeting process, the role of the citizen, and possible reforms. An emphasis on speakers, field trips and applied projects makes this course a "how-to" format for the average citizen. Class meets three hours a week. Three credits.

AMERICAN NATIONAL GOVERNMENT .... SS 3138
Examination of the theoretical, political and administrative aspects of American government. Topics of study are American political theory, political parties, decision making, the Presidency, the Congress, the courts and the nature of contemporary national government. Class meets three hours a week. Three credits.

INTERNATIONAL RELATIONS .......... SS 2808
Study of the interaction of nation-states and factors which affect international relationships. The role of power, law and ideology, and the effectiveness of international organizations, private diplomacy, collective security and war are examined. Current topics in international politics are used as case studies. Class meets three hours a week. Three credits.

EUROPEAN HISTORY FROM 1750 ........ SS 9922
Survey of the major social, economic and political events in Europe from the Industrial Revolution. Topics include pre-industrial versus industrial values, urbanization, industrialization, political revolutions and the two World Wars. The course emphasizes how the structure of society, the nature of politics and intellectual life have changed during the past 200 years. Class meets three hours a week. Three credits.

WESTERN CIVILIZATION: READINGS AND DISCUSSION I ........ SS 5500
Major ideas in Western Civilization dealing with our relationship to the environment and our speculations on the nature of God. Students will read selections from Western thought. A research paper will be required. The course will meet for five three-hour discussion sessions and for two two-hour testing sessions. Audio-visual material and a student manual will be available. Three credits.

WESTERN CIVILIZATION: READINGS AND DISCUSSION II ..... SS 2006
Covers major ideas in Western Civilization about people's social, economic, political and ethical relationships to others and their search for personal identity. Students will read selections from Western thought and discuss these ideas in small discussion groups. A research paper will be required. Class meets by arrangement. Three credits.

SOCIAL WORK AND SOCIAL SERVICES .... SS 4123
Introduction to the social work profession for students considering the field as a career and wanting to learn about social work and its activities. Course covers the origins, values, skills, fields of service and current issues in the social work profession. Class meets three times a week. Three credits.

SPEECH AND DEBATE

INTERPERSONAL COMMUNICATION .. CSP 4950
Basic speech course dealing with the oral communications process through the study of interpersonal relationships. Practical principles of effective speech communication in one-to-one and small group relationships are studied and applied in a variety of learning games and situations. Individualized talks are given but everyday communication is stressed. Class meets three hours a week. Three credits.
PUBLIC SPEAKING ........................... CSP 4130
Emphasis on speech organization, development of ideas and delivery. Progress is self-paced, with individualized instructor guidance and opportunity for interaction with others. Speeches students will design and deliver include impromptu, extemporaneous and manuscript. Class meets three hours a week. Three credits.

GROUP DISCUSSION .......................... CSP 1150
Study of interpersonal communication, emphasizing the theory and experience necessary for understanding group dynamics and effective group communication skills. Class meets three hours a week. Three credits.

ELEMENTARY DEBATE .......................... CSP 5545
Introduction to theories of argumentation and debate leading to participation in intercollegiate debate. Students will attend two to eight weekend debate tournaments a semester. Class meets three hours a week. Two credits.

INTERMEDIATE DEBATE I ...................... CSP 2162
Prerequisite: CSP 5545. Continuation of argumentation and debate theories. Participation in intercollegiate debate required. Students will attend two to eight weekend debate tournaments a semester. Class meets three hours a week. Two credits.

INTERMEDIATE DEBATE II ..................... CSP 1001
Prerequisite: CSP 2162. Comprehensive review of theories of argumentation and debate. Increased emphasis on intercollegiate debate. Students will attend two to eight weekend debate tournaments a semester. Class meets three hours a week. Two credits.

ADVANCED DEBATE ............................ CSP 6651
Prerequisite: CSP 1001. Emphasis on participation in senior level intercollegiate debate. Students will attend two to eight weekend debate tournaments a semester. Class meets three hours a week. Two credits.

THEATER

CHILDREN'S THEATER .......................... CDR 5554
Allows students with no experience to explore children's theater. Areas studied include the difference between theater for and by children, and the adaptation of various forms of children's literature. Presentation of programs to area grade school children will be an integral part of the program. Class meets three hours a week, plus modular scheduling of rehearsals and performances. Three credits.

INTRODUCTION TO THEATER ................. CDR 1809
An exposure to the theatrical experience for insight and appreciation. Great plays will be read. Television, film and live theater presentations will be viewed in performance. Class discussions of theater practices, dramatic structure and history of the theater will aim toward understanding and enjoyment of the art. Class meets three hours a week. Three credits.

ACTING I ........................................ CDR 3311
Fundamentals of acting. Character analysis; relation of the role to the play; techniques and practice in posture, movement, voice and projection. Projects in actual stage performance and on videotape for broadcast. Class meets three hours a week, plus modular scheduling of rehearsals and public performance for classes. Three classes.

ACTING II ........................................ CDR 5316
Prerequisite: CDR 3311. Continuation of Acting I. Emphasis on character analysis and development, with corresponding responsibility of actors for their own creativity. Projects in actual stage performance and on videotape for broadcast. Class meets three hours a week, plus modular scheduling of rehearsals and public performances for classes. Three credits.

IMPROVISATION IN CHILDREN'S THEATER ....
Prerequisite: CDR 5554. For students with experience in performing for children. This course provides an opportunity for continued involvement in children's theater. Students will explore traditional areas such as adapting plays and such techniques 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 of the children for whom it is to be performed. Performances will be given for area grade school children. Class meets three hours a week, plus modular scheduling of rehearsals and performances. Spring, three credits.
STAGECRAFT I ..................... CDR 6215
This course, along with its sequel, Stagecraft II, will acquaint students with technical theater production. Students will assist in producing programs with the acting class. Areas covered in this course are use and recognition of tools, set building and painting techniques. Class meets three hours a week, plus modular scheduling of rehearsals and performances. Three credits.

STAGECRAFT II ..................... CDR 6241
The use of techniques of lighting and lighting instruments, make-up, costumes and hand props in relation to theatrical productions. Students serve as technical support for productions presented by acting classes. Class meets three hours a week, plus modular scheduling of rehearsals and performances. Three credits.

PUPPETRY WORKSHOP ............ CDR 3612
Designed to acquaint students with puppetry as a performing art, stressing construction and manipulation of puppets. Highlights include design for the puppet theater, methods of construction and range of materials. Students will experiment with puppet types and staging toward a contemporary total theater. One or two credits.

ORAL INTERPRETATION .......... CDR 2582
A basic course in the study of literature through oral communication. Emphasis on analyzing and performing prose, poetry and dramatic literature. Students will give public performances or compete in tournaments. Class meets three hours a week. Three credits.

URBAN AGRIBUSINESS

THEORY AND PRACTICE OF HORTICULTURE I ............... NUA 8887
Principles of plant classification, structure, photosynthesis, growth and development. The nature and properties of soils related to plant growth. Four hours of lecture and three hours of lab a week. Five credits.

THEORY AND PRACTICE OF HORTICULTURE II ............... NUA 3889
Principles and practices of pruning and training plants. Plant protection using an integrated pest management approach. Identification of diseases, insects, mites, weeds, physiological diseases and methods of control. Four hours of lecture and three hours of lab a week. Five credits.

INTRODUCTION TO URBAN AGRIBUSINESS ............... NUA 6888
Job opportunities and careers in horticulture. Class meets one hour a week. One credit.

COOPERATIVE WORK EXPERIENCE I ............... NUA 5890
Prerequisite: Approval of the urban agribusiness instructor. On-the-job training in a field directly related to the Urban Agribusiness Program. Class meets fifteen hours a week. Three credits.

COOPERATIVE WORK EXPERIENCE II ............... NUA 7892
Prerequisite: NUA 5890. On-the-job training in a field directly related to the Urban Agribusiness Program. Class meets fifteen hours a week. Three credits.

LANDSCAPE HORTICULTURE ............... NUA 2930
Prerequisite: NUA 8887 and NUA 3889 or practical experience in horticulture. Principles of planning, producing, setting out and maintaining ornamental plantings of trees, vines, ground covers, perennials, turf and annuals. Class meets four hours a week. Three credits.
SPECIAL TOPICS IN HORTICULTURE I  

Prerequisites: NUA 8887 and NUA 3889 or practical experience in horticulture. Special topics in the areas of arboriculture, floricultural crop production, fruit and nut crop production, greenhouse construction, nursery management, plant propagation, supervision of golf course management, and vegetable crop ecology. Class meets one to three hours a week. One to three credits.

SPECIAL TOPICS IN HORTICULTURE II  

Prerequisites: NUA 8887 and NUA 3889 or practical experience in horticulture. Special topics in the areas of arboriculture, floricultural crop production, fruit and nut crop production, greenhouse construction, nursery management, plant propagation, supervision of golf course management, and vegetable crop ecology. Class meets one to three hours a week. One to three credits.

SPECIAL TOPICS IN HORTICULTURE III  

Prerequisites: NUA 8887 and NUA 3889 or practical experience in horticulture. Special topics in the areas of arboriculture, floricultural crop production, fruit and nut crop production, greenhouse construction, nursery management, plant propagation, supervision of golf course management, and vegetable crop ecology. Class meets one to three hours a week. One to three credits.

PLANT MATERIALS II  

Prerequisites: NUA 8887 and NUA 3889 or practical experience in horticulture. Identification, uses and abuses of deciduous trees and shrubs as well as evergreens and woody vines in landscaping. Class meets four hours a week. Three credits.

PRINCIPLES OF SUPERVISION  

Responsibilities of supervisors. Organization, duties, human relations, grievances, training, rating, promotion, quality control and management-employee relations. Class meets three hours a week. Three credits.

GROUNDNS ESTABLISHMENT AND MAINTENANCE  

Prerequisites: NUA 8887 and NUA 3889 or practical experience in horticulture. Arboriculture and turfgrass management. Maintenance of trees. Establishment and maintenance of turf. Class meets four hours a week. Three credits.

PLANT MATERIALS I  

Prerequisites: NUA 8887 and NUA 3889 or practical experience in horticulture. Perennials, annuals and conifers for landscape planting. Class meets four hours a week. Three credits.
Student and Instructional Services

Counseling
Testing/Assessment
Career Planning and Placement Center
GED Program
General Studies
Writing Center
Project CLEAR
Hearing Impaired Program
Gallaudet College Midcentral
Regional Extension Center
Child Play Center
Dental Hygiene Clinic
Student Activities
Campus Ledger
Intercollegiate Athletics
Library
Parking
Student Code of Conduct
Student Grievance Policy & Procedures
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. Usually, you may see a counselor on a walk-in basis. During registration and early registration you should call to make an appointment.

Here is what the Counseling Center has to offer:
- 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.

- 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.
- 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.

Testing/Assessment Center

The Center offers a wide variety of testing services including aptitude and interest inventories, administration and interpretation of standardized exams, course placement exams and instructor-developed exams. This also is the place to come if you are interested in receiving advanced college credit through examination or experience. The Center will mail you information about specific tests and dates at your request.

Career Planning and Placement Center

Do you need help in mapping out your career? Finding a job? Writing a resume or letter of application? Preparing for a job interview? The Career Planning and Placement Center offers classes and individualized help in career planning and job hunting. The Center usually has available several hundred full-time and part-time job opportunities and maintains a network of contacts which includes employers, other college and university placement offices, and public and private employment agencies.

GED Program

If you plan to obtain a high school equivalency certificate by taking the General Educational Development Test, contact the Testing/Assessment Center for details. If you now are ready to take the GED Test, the Testing/Assessment Center will arrange for you to complete the necessary application forms. The Center also will schedule a testing appointment for you after you have received your GED testing permit.

Help in preparing to take the GED Test is available at no cost through a variety of classes including twelve-week and eight-week classes and through individual instruction.

Are you unsure whether you need help in preparing? Take a diagnostic GED practice test through the Testing/Assessment Center to determine if you are ready to take the actual GED Test.

General Studies Program

The General Studies Program will help you develop basic skills in reading, vocabulary and other areas through individualized instruction, small classes and the Tutor Exchange:
- Individualized instruction consists of a self-paced program focusing on improving your skills in reading comprehension, reading rate, spelling, vocabulary, grammar, mathematics and study methods. You also may study medical terminology and prepare for college-level studies in algebra and chemistry.
- Tutor Exchange is a list of tutors available to help you develop specific skills. See the receptionist at the General Studies Lab for details.
- Small classes, usually lasting a few weeks, are offered in several areas including study skills and vocabulary development.
Writing Center

Need help in writing an essay, research paper, journal, business letter, resume, book report or other assignment? Come to the Writing Center, GEB 149. Instructors and student tutors are on hand to help you solve specific grammar, spelling and word usage problems. If you have a quick question, call the GRAMMAR HOTLINE, 888-8500, ext. 439. For more personalized help, contact the Writing Center to make an appointment.

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 personalized help in admission and orientation and supportive services such as notetaking, interpreting and counseling. A variety of courses are available each semester including speech therapy, manual communications and the fundamentals of math and English.

In addition, the program makes an effort to teach the community and others throughout Kansas how to better deal with the hearing-impaired population.

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 five-state area through workshops, seminars, conferences and consultation. It is the work of the Center to provide educational opportunities 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.

Child Play Center

Your child may stay in the Child Play Center while you are in class or on campus for other school activities. This service is designed especially for children of JCCC students. A staff qualified in accordance with Kansas State regulations is on hand to care for children between the ages of 2½ (toilet-trained) and 12. The Child Play Center challenges the imagination and creativity of each child. It also strives to guide and accept children at their own levels. For just $1 an hour, your child will get quality care and have fun participating in planned activities. You can reserve a place for your child on a regular basis or use the Center on a drop-in basis.

Dental Hygiene Clinic

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
The JCCC Student Activities Program brings you year-round cultural, social and recreational activities, sponsored by the Student Activities Office in cooperation with the Student Assembly and the Campus Activities Board, two volunteer student government organizations. Activities you can expect each year include the Friday Cinema Series, Spring Fever Week, Captioned Films for the Deaf Series and the annual Holiday Dance.

You also can look forward to live entertainment in the College Commons, guest lecturers, film festivals and Fool-Con, the regional science fiction/fantasy convention. Also watch for special ski trips, canoe trips and evenings at local dinner theaters.

In addition to these special events, you may wish to join a club—or form your own. Some clubs are vocationally-oriented such as the Hospitality Management Club and the Junior American Dental Hygienists Association of JCCC. Other clubs are organized around special interests including the interdenominational fellowship club, science fiction/fantasy club and political party organizations.

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 complete information on student activities, contact the coordinator of Student Activities or call the WHAT'S HAPPENING HOTLINE, 677-8588. To join or form a club, contact the coordinator of Student Activities.

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, track and wrestling 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 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, library specialists and library aides are on hand to assist you in finding and using the resources.

Currently, the library houses more than 38,000 books, 480 current periodicals, 130,000 documents on microfiche 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.
Usually books are due two weeks from the Monday following the day you check them out. This means you may keep books from two to three weeks. 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 B and H unless you have a permit.

Handicapped Parking
If you are permanently handicapped, you may obtain a registration sticker from the Security Office which allows you to park in lots designated for the handicapped. Attach this sticker to the rear bumper, driver’s side of your vehicle. If you wish to park for a limited time in the handicapped parking lots, obtain a permit from the Security Office and attach it to the rear window, driver’s side of your vehicle.

Motorcycles and motorcycles
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 in the Security Office.

Handicapped Lot Violation
Your vehicle will be immobilized after you receive two citations for parking in a handicapped lot without a permit, Monday through Friday, 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 handicapped parking lots 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.
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 activities. 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 decisions 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 98-380 as amended by Public Law 93-568 and in regulations published by HEW in the June 17, 1976 Federal Register.

The law and regulations published by the Department of Health, Education and Welfare require educational institutions to:

- provide you the opportunity to inspect your educational 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 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, 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 will upon request provide this information:

- 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 HEW 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., HEW
Room 514 E
200 Independence Avenue SW
Washington, DC 20201
Community Education and Services

Continuing Education
Community Development
Community School Program
VIEWS for Women
Cultural Arts Program
A Program for Those Over 60
On-Site Education
Clinics for Youth
Speakers Bureau
Child Care Directory
COMMUNITY EDUCATION AT JCCC

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 JCCC's continuing education program. Most 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. Activities offered include art, aviation, foreign languages, home and family, human relations, music and photography.

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 related to youth, women, single adults and the elderly
• discussing health services, county reorganization, land use, water and environment
• joining Great Decisions discussion groups focusing on foreign policy decisions including arms reduction
• 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, Stanley-Stilwell, DeSoto-Clearview, Gardner-Edgerton and Spring Hill. Classes are held in local schools selected jointly by the Community School Council and JCCC. The Community School Council consists of a cross section of local residents confirmed by the local board of education, making the community school a joint venture of the College and the community. Each community school has a resident coordinator who assists in scheduling and registration procedures. Community School courses are listed in JCCC's Community Education bulletin each semester.

VIEWS for Women
JCCC's special VIEWS for Women Program focuses on the needs and concerns of area women. The program helps make personal development and the resulting changes mutually enriching to all members of the family. Course topics include personal growth, health and physical development, communication skills, home and automobile maintenance, financial management, career development, human relations and leadership.

Cultural Arts Program
There is a rich array of cultural opportunities available in the greater Kansas City area and JCCC's Cultural Arts Program helps you enjoy them. The program includes classes, lectures, films, concerts and tours on a variety of subjects—architecture, antiques, anthropology, art, jewelry, theater, 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 Over 60
Are you over 60 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 don't have to pay to take College credit and non-credit courses or to get into College-sponsored musical, dramatic or athletic programs.

In addition to the Brown and Gold Club, JCCC presents programs for those over 60 at senior citizen centers, luncheon sites, churches and libraries. Another popular over-60 activity is Campus Day, a full day of programs and involvement with JCCC students and instructors held each semester.

On-Site Education
If your firm, industry, business or organization cannot come to JCCC, JCCC will come to it through the On-Site Education Program. Most courses listed in the College Catalog and the Community Education Bulletin may be taught on the premises of your organization. And, if you want a specific course not being offered, the College staff can work with you to design a class to meet that need. On-site courses in the past have included technical writing, effective supervision, stress management and pre-retirement planning.

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 Speaker's Bureau can arrange for someone to speak to your organization about it. The Bureau also can arrange performances by music, drama and speech students.

Child Care Directory
A complete directory of child care centers in Johnson County is published annually by JCCC. To get your copy, send a large self-addressed envelope to JCCC Community Services, College Blvd. at Quivira Road, Overland Park, Kansas 66210.
Board of Trustees and Staff

About the College
History
Board of Trustees
Staff
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.

Membership in the League constitutes a significant recognition of a commitment to (1) a program of experimentation and improvement; (2) a willingness to share the fruits of experimentation; (3) a cooperative program with other districts on the solution of common problems; and (4) an evaluation of experimentation in the orderly operation of the district's programs.

KRCHE

JCCC is a member of the Kansas City Regional Council for Higher Education (KRCHE), 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.

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

KRCHE was founded in 1962, and has a current membership of 16 parent institutions and 23 campuses in a wide metropolitan area which extends to 125 miles. Included are colleges and universities which are tax-supported, independent and church-related, both Roman Catholic and Protestant. They are two-year, four-year and graduate, both single-purpose and multi-purpose, located in Kansas, Missouri and Iowa. Membership in KRCHE is the means for keeping regional institutions in touch with one another across the lines which separate them — state boundaries, public-private divisions and distinctive institutional missions. And the diversity in membership adds to the intellectual and organization resources available for inter-institutional sharing.

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 Hygienists Association and American Dental Association; Medical Record Technology — American Medical Association and American Medical Records Association; Mental Health Technology and Nursing programs — State Board of Nursing; Paralegal Program — American Bar Association; Respiratory Therapy — American Medical Association and American Association of Respiratory Therapists; Basic Police Academy — University of Kansas.

WEEKEND COLLEGE

Why not spend your weekends earning college credit? You can through Weekend College, designed for students with little or no college experience who are unable to attend classes during the week. The courses, held on Friday evenings and Saturdays, are part of the existing fully-accredited two-year curriculum at JCCC. It is possible to earn an Associate of Arts degree in four years through this program. You may wish to consider Weekend College if . . . .

. . . you are unable to attend classes during the week because you work;
. . . you are seeking to accelerate a program toward a degree;
. . . you are looking for personal enrichment or professional growth.

Contact the Division of Student Services for more information.

SUMMER SESSION

Each year, Johnson County Community College conducts a summer session following the spring semester. The summer courses parallel those offered during the regular fall and spring semesters. The balanced programs that are available enable you to accelerate your academic programs or satisfy individual needs.

The summer sessions also provide the opportunity for high school seniors to acquire advanced standing by successfully completing collegiate courses.
History Of The College

A little over 12 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 the 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 after a county-wide referendum approved the idea by nearly a 3-1 margin.

Four months later the first 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.

Under the leadership of the Trustees and JCCC's first president, Dr. Robert Harris, the present campus was completed in 1972—six buildings housing 384,550 square feet of space on more than 200 acres of prairie grassland.

The real story of JCCC, however, is lodged in its programs and classes. JCCC offers 26 career programs and more than 400 separate courses in general studies in communications, mathematics, the humanities, the natural and social sciences and in community and continuing education.

JCCC's open-door admissions policy and quality programs attract 5,500 students each year and more than 19,000 participants in community service and continuing education programs and events.

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