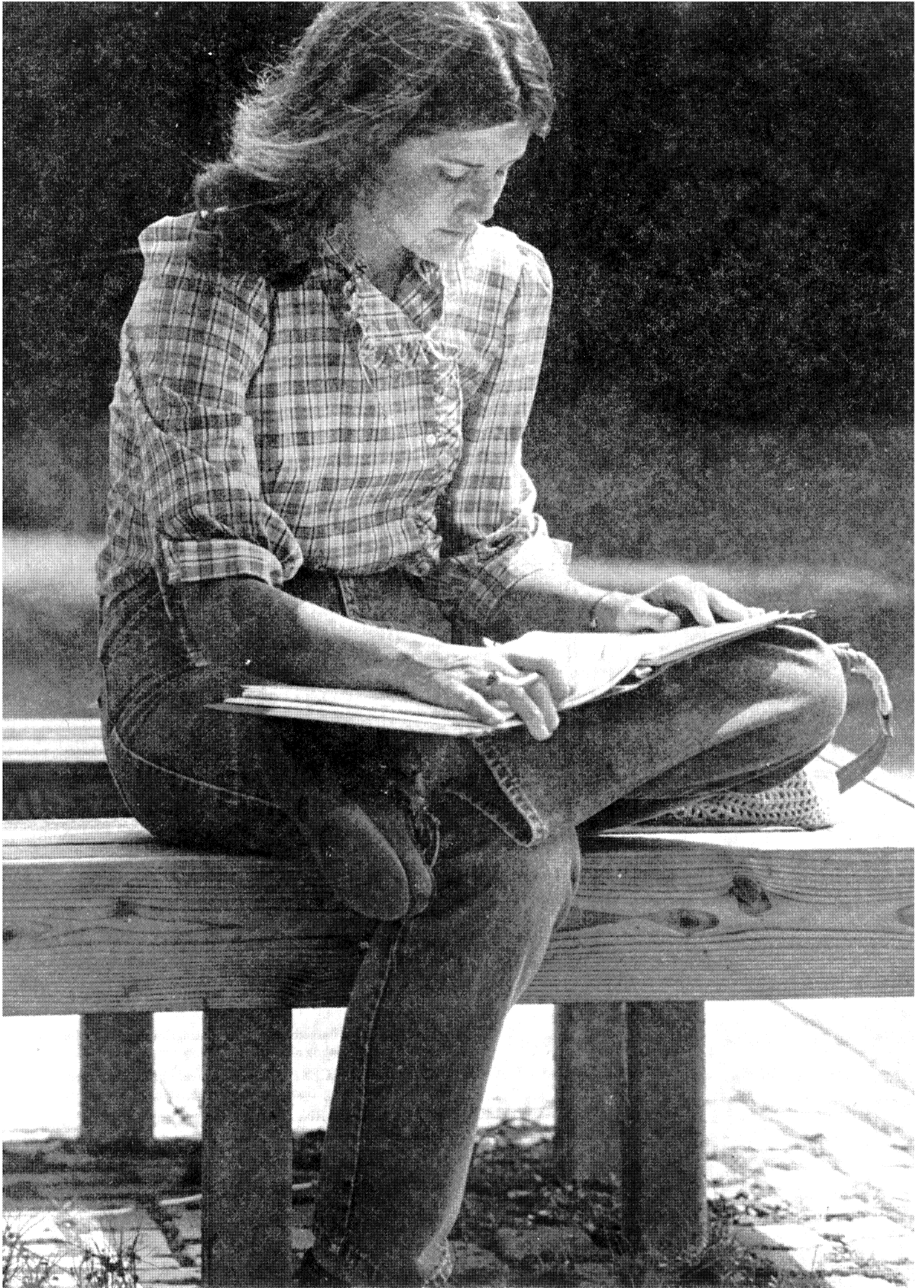


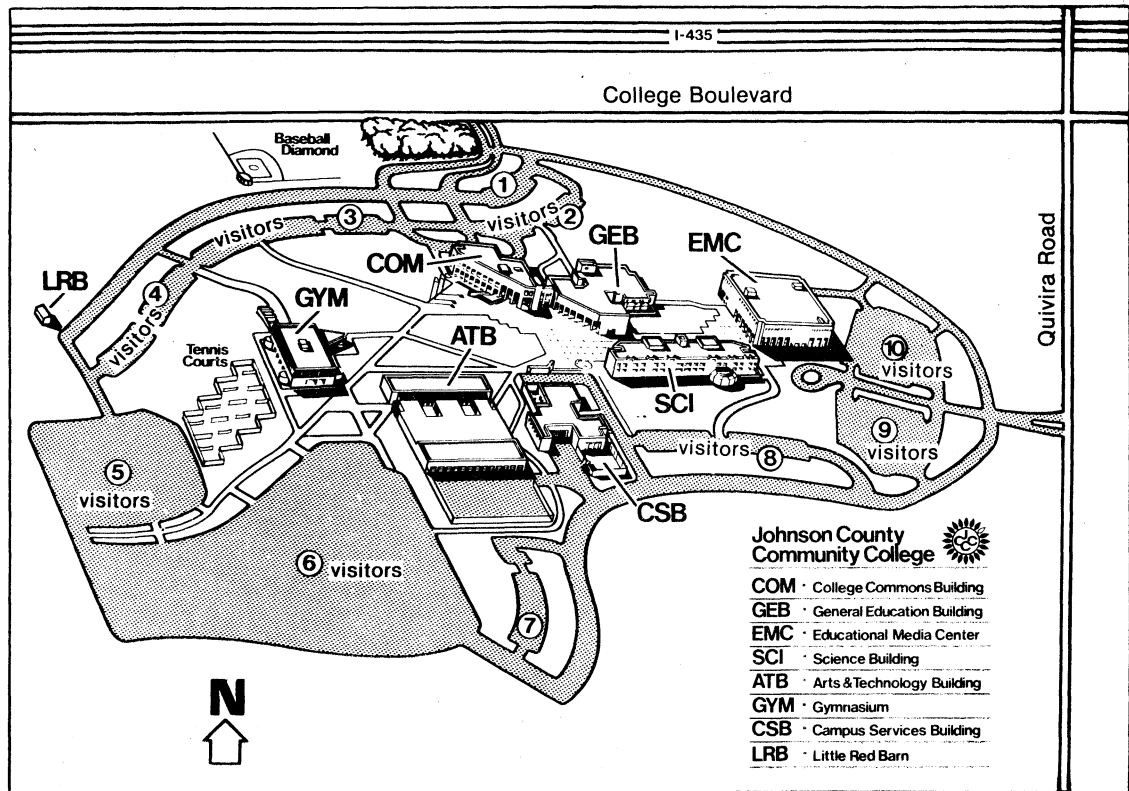
83/84

Catalog



JOHNSON COUNTY COMMUNITY COLLEGE





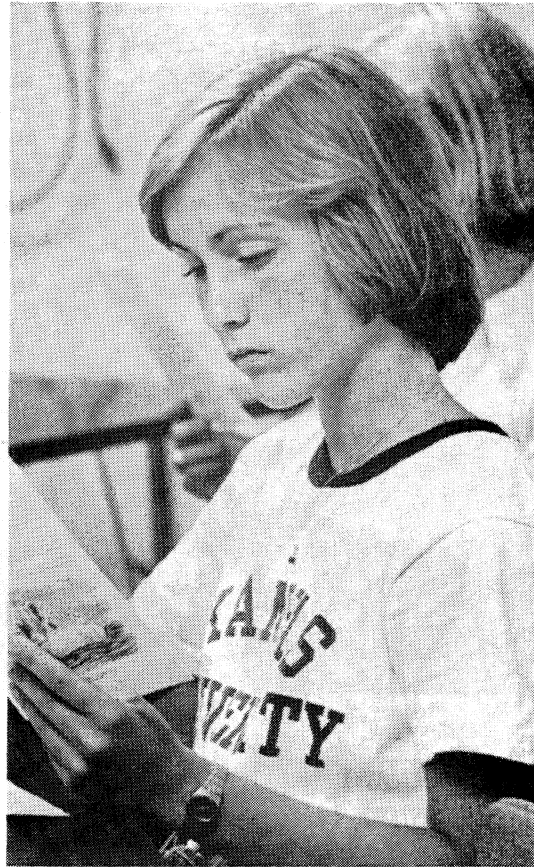
JCCC Campus Map

- GEB GENERAL EDUCATION BUILDING:** Administrative Offices, Admissions, Business Office, Business and Economics Division, Campus Ledger, Career Planning and Placement Center, Continuing Education and Community Services Divisions, Counseling, Communications Division, Continuing Education and Community Services Division, Financial Aid, Gallaudet Extension Center, Humanities and Social Sciences Divisions, Little Theater, Public Information, Special Services, Testing and Assessment.
- COM COLLEGE COMMONS:** Amber Room, Bookstore, Cafeteria, Child Play Center, Foundation, Hospitality Management Program, Institutional Research, Math Resource Lab, Student Recreation Room, Staff Lounge, Sunflower Room.
- EMC EDUCATIONAL MEDIA CENTER:** Audiovisual, Commercial Art Program, Drafting Lab, Electronics Lab, Graphics, Language Lab, Learning Center, Library, Library Division, Photography, Mail Room, Television, Word Production.
- SCI SCIENCE BUILDING:** Chemistry labs, Dental Hygiene Clinic, Life Science labs, Natural and Health Related Science Division, Nursing lab, Personnel Office.
- ATB ARTS AND TECHNOLOGY BUILDING:** ATB Gallery, ATB Resource Center, Automotive Technology labs, Ceramics and Sculpture studios, Construction and Maintenance Technology labs, Drawing studio, Painting studio, Energy Technology labs, Engineering and Technology, Painting studio, Photography labs.
- GYM GYMNASIUM:** Basketball Court, Physical Development Division, Weight room, Wrestling room.
- CSB CAMPUS SERVICES BUILDING:** Loading Dock, Maintenance, Facilities, Purchasing, Security, Warehouse, Vehicles Warehouse.
- LRB LITTLE RED BARN:** Historical landmark and space for equine studies.

All buildings on campus are accessible to the handicapped.

CATALOG 1983-84

Johnson County
Community College
12345 College at Quivira
Overland Park, Kansas 66210



NOTICE OF NON-DISCRIMINATION

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

This catalog becomes effective July 1, 1983.

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.

© 1983 JOHNSON COUNTY COMMUNITY COLLEGE



A Community College by Design Is More Dynamic...

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

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

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

Sincerely,

A handwritten signature in dark ink that reads "Charles J. Carlsen". The signature is written in a cursive style with a large, sweeping "C" at the beginning.

Charles J. Carlsen
President
Johnson County Community College

About the College

History

A little over 16 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.

The present campus was completed in 1972—six buildings housing 384,550 square feet of space on more than 200 acres of prairie grassland. A new building, the Arts and Technology Building, was added in 1981.

The real story of JCCC, however, is lodged in its programs and classes. JCCC offers more than 35 career programs and more than 400 separate courses in general studies, communications, mathematics, the humanities, the natural and social sciences and in community and continuing education.

JCCC's open-door admissions policy and quality programs attract 7,800 students each semester and more than 19,000 participants annually in community service and continuing education programs and events.

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

Mission

Johnson County Community College primarily serves the residents of Johnson County, and:

Provides lifelong learning services;

Stays abreast of educational needs of the community;

Provides freshman and sophomore level courses;

Encourages the integration of liberal education and vocational skills;

Provides unique services for the handicapped, especially the hearing impaired;

Provides educational enrichment programs;

Arranges cultural and international events for the benefit of the community;

Counsels students making educational decisions;

Counsels individuals making vocational and life decisions;

Helps individuals find job placements;

Provides facilities for recreation, cultural and educational activities;

Maintains an open-door policy for college admission (may have specific requirements for individual programs);

Provides technical, para-professional and professional programs needed in the community;

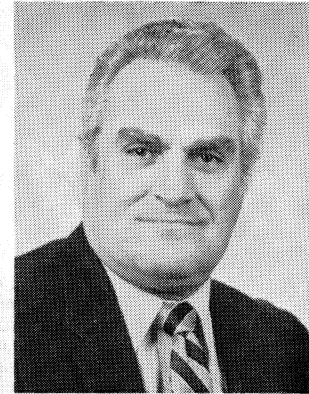
Provides support services to local business, government, industry and community organizations through utilization of the college facilities and talents of staff and students;

Holds forums, conferences, institutes, short courses.

Board of Trustees



John "Jack" Cramer



Floyd Huggins



Jean Hunter



Susan Lindsay

League for Innovation

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

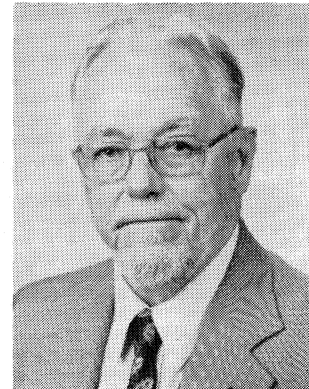
KCRCHE

JCCC is a member of the Kansas City Regional Council for Higher Education (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.



Carol Sader



Hugh Speer

Accreditation

Johnson County Community College is officially accredited by the North Central Association of Colleges and Schools. In addition, individual programs are accredited by associated professional organizations: Dental Hygiene – American Dental Hygienists Association and American Dental Association; Medical Record Technology – American Medical Association and American Medical Records Association; Mental Health Technology and Nursing programs – State Board of Nursing; National League for Nursing; Paralegal Program – American Bar Association; Respiratory Therapy – American Medical Association and American Association of Respiratory Therapists; Basic Police Academy – University of Kansas.



Academic Calendar

SUMMER SESSION 1983

REGULAR AND MINI SESSIONS

- June 30 First four-week mini session ends.
- July 4 Independence Day holiday. Classes not in session. College offices closed.
- 5 First day of second four-week mini session.
- 28 Eight-week summer session and second mini session end.

FALL SEMESTER 1983

- Aug. 18 Fall semester begins. First day of credit classes.
- Sept. 5 Labor Day. Classes not in session. College offices closed.
- Nov. 24-25 Thanksgiving holiday. Credit classes not in session. College offices closed.
- Dec. 19 Last day of fall semester classes.
- Dec. 23-Jan. 2 Christmas and New Year's holidays.

SPRING SEMESTER 1984

- Jan. 3 Spring mini session classes begin.
- 13 Last day of spring mini session classes.
- 16 Spring semester begins. First day of credit classes.
- Feb. 20 Presidents' Day. Classes not in session. College offices closed.
- March 19-24 Spring recess. Credit classes not in session. College offices open.
- May 18 Commencement
- 21 Last day of spring semester classes.
- 28 Memorial Day. Classes not in session. College offices closed.

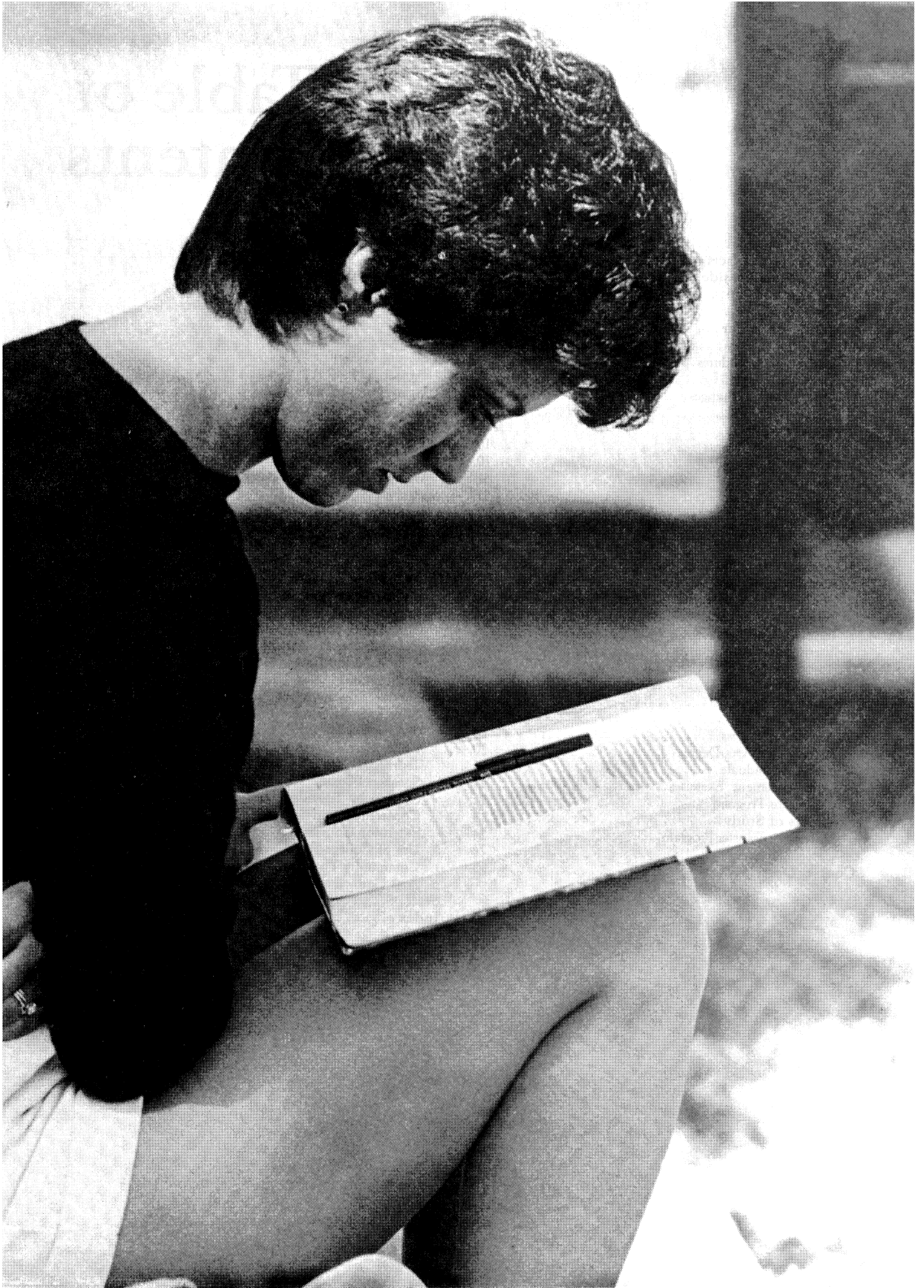
SUMMER SESSION 1984

REGULAR AND MINI SESSIONS

- May 21 Summer mini session begins.
- June 1 Summer mini session ends.
- June 4 Summer session and first four-week mini session classes begin.
- 28 First four-week mini session ends.
- July 2 Second four-week mini session classes begin.
- July 4 Independence Day holiday. Classes not in session. College offices closed.
- July 26 Eight-week summer session and second four-week mini session end.

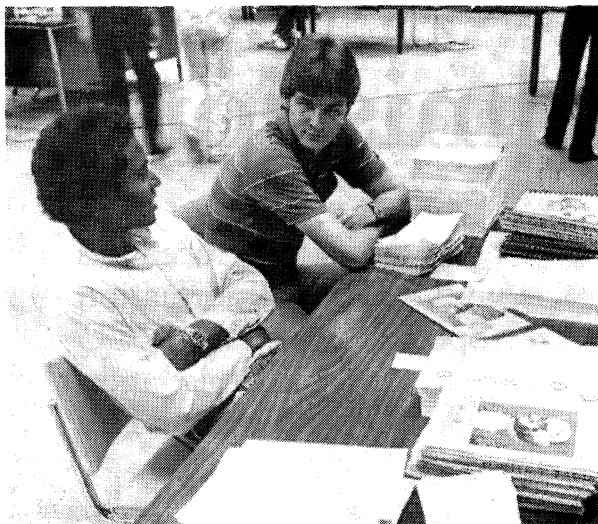
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Admissions

Admissions Procedures
Other Information
Special Students at JCCC
Registration
Tuition and Fees



ADMISSIONS PROCEDURES

Can anyone go to Johnson County Community College?

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

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

How do I apply for admission?

If you are enrolling at JCCC for the first time, follow these steps:

1. **Complete an application form** and return it to the Admissions/Records Office. Application forms are available in the Admissions/Records Office.
2. **Provide your high school transcripts.** Request that your high school send your transcripts directly to the JCCC Admissions/Records Office. You do not need to submit high school transcripts if you have been out of high school five years or more.
3. **Provide your college transcripts** if you are transferring to JCCC from another college. Request that all the institutions you have attended in the past mail your transcripts directly to JCCC Admissions/Records Office. Your transcript record at JCCC will be withheld if your transcripts are not submitted.
4. **Determine if you are a resident or non-resident.** Kansas law requires that you live in the state six months before you are considered a resident. Non-residents at JCCC must pay out-of-state tuition and fees—\$57.50 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 pro-

grams require you to submit ACT scores by Feb. 15. If you plan to submit your scores, take the ACT test as early as possible and request that your scores be sent to JCCC. ACT scores also are required for all students enrolling in any entry-level English courses. If you have not taken the ACT and plan to enroll in an entry-level English course you will be required to take the JCCC English assessment test. For more information contact the Testing/Assessment Center.

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

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

OTHER INFORMATION

How much will my textbooks cost?

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

Who do I notify if I change my name or address?

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

Does JCCC offer summer sessions and mini sessions?

JCCC offers both summer sessions and mini sessions each year. For more information contact the Admissions Office.

JCCC also offers Weekend College designed for students who are unable to attend classes during the week. The courses, held on Friday evenings and Saturdays, are part of the fully accredited two-year curriculum at JCCC. It is possible to earn an associate of arts degree in four years through this program. Contact the dean of Student Services for more information.

SPECIAL STUDENTS AT JCCC

Foreign Students

If you are a foreign student, you need to apply for admission and supply required documents within these deadlines:

June 1, if you are applying for fall semester

Oct. 1, if you are applying for spring semester

March 1, if you are applying for summer session

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

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

Resident Aliens

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

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. If you are interested in JCCC's QUICK STEP program, contact your high school counselor or JCCC's director of Admissions/Records.

Disabled Students

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

REGISTRATION

After I am admitted, how do I register for classes?

Registration at JCCC is easy. First, you need to meet with your JCCC counselor to develop an educational plan. Your counselor will tell you about prerequisites for courses, the transferability of courses and the sequence in which you should take them.

After your questions have been answered and your plan developed you are ready to register. The exact time and day you must register will be 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	\$15.00 per semester credit hour
Commons fee	\$1.50 per semester credit hour
Student Activity fee . . .	\$1.00 per semester credit hour
TOTAL PER CREDIT HOUR	\$17.50

Out-of-state and foreign students:

Tuition	\$55.00 per semester credit hour
Commons fee	\$1.50 per semester credit hour
Student Activity fee . . .	\$1.00 per semester credit hour
TOTAL PER CREDIT HOUR	\$57.50

The JCCC Board of Trustees has the right to change these tuition and fees. Changes in tuition or fees will be published before they are effective.

Some of your courses may require fees in addition to tuition. Check the Credit Class Schedule, where any additional fees will be listed. Pay all tuition and fees in the Business Office.

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

Will I get a refund if a class is canceled or if I withdraw?

You will get a full refund of tuition and fees if JCCC exercises its right to cancel a class. If you withdraw from a class, you may get a partial refund. Apply for a refund through the Admissions/Records Office by presenting your validated copy of the registration form and completing a drop form. If you have completed registration and you withdraw from a class or classes in which you are enrolled, you will receive the following refund:

- 100% of tuition and fees paid if your withdrawal is processed by the Admissions/Records Office **before** – but not on – the first day of the semester, term or session;
- 80% of tuition and fees paid if your withdrawal is processed by the Admissions/Records Office:
 - within two weeks after the beginning of classes for fall and spring semesters;
 - four calendar days after the beginning of classes for an eight-week term;
 - two calendar days after the beginning of classes for a four-week session;
 - one calendar day after the beginning of classes for a two-week mini session, a short course or a seminar.
- No refund will be authorized for withdrawals or changes in registration made after the calendar days as specified. The only exceptions are if the class is cancelled by the College or a revision of the class schedule is necessary in which case you will receive a 100% refund of tuition and fees. Your refund is calculated based upon the day you officially drop the class in the Admissions Office and not when you stop attending the class.





Financial Aid

How to Apply
Types of Aid Available
Veterans

FINANCIAL AID

Does JCCC offer financial aid to its students?

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

How is financial need determined?

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

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

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

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



How do I apply for financial aid?

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 should submit financial aid applications by June 1 for the fall semester and by Dec. 1 for the spring semester. Your aid application is complete only when you have provided all the required forms and validation documents.**



How will I know if I am awarded financial aid?

You will be notified through the mail as soon as possible.

What types of aid are available?

- **Pell Grant:** The Pell Grant is funded by the federal government. If you are eligible, you can receive up to \$900 for the academic year at JCCC. The grant can apply toward any educationally-related expenses.
- **Supplemental Educational Opportunity Grants (SEOG):** This government grant ranges from \$200-\$2000 and can apply toward any education-related expenses. You are eligible if you can show need.
- **Board of Trustees Grant (BOT):** The Board of Trustees grants are financial awards made to JCCC students who are or who will be enrolled in a minimum of six credit hours. Only Johnson County residents are eligible. The grants, which are designed to help defray school costs, are authorized by the JCCC Board of Trustees. Funds are limited and competition is keen.
- **Foundation Grants:** You must fulfill unique qualifications before you are awarded this grant which is administered by the JCCC Foundation. For a list of these grants and their special qualifications, contact the Financial Aid Office.
- **National Direct Student Loan (NDSL):** This federal government loan is processed through JCCC. The loans range from \$200-\$1500 a year. You may borrow a maximum of \$3000 while enrolled at JCCC. The loan is interest-free while you are enrolled at least half-time. Six months after you leave JCCC, you must begin repaying the loan.
- **Guaranteed Student Loan (GSL):** This loan is from a bank, savings and loan, or credit union. The loan is interest-free as long as you are enrolled at least half-time. Six months after you leave school you must begin repaying the loan. For additional information contact the Financial Aid Office.

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

• **College Work Study Program:** In this federally-funded program, students work part-time on campus. The pay is minimum wage and paychecks are issued every other Friday.

When will I receive the funds?

No funds will be disbursed to students until the first day of classes.

There are no tuition waivers, book waivers or partial payment plans. However, if you cannot pay your fee when you register and you are an **approved financial aid recipient**, you can sign a financial aid transfer authorization form in the Financial Aid Office. By presenting this form to the cashier in the Business Office, you can pay your registration. If your aid is not enough to pay what you owe, you must pay that balance at that time.

If you have not signed and returned your offer of financial assistance or you registered during on-campus registration, you must pay for your tuition and fees according to the payment policy.



What effect will my grades have on my financial aid?

The Pell Grant, NDSL, SEOG, CWSP, Plus Loan and GSL 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:

Upon completion of	Minimum GPA
6-15 credit hours	1.25
16-30 credit hours	1.65
31-45 credit hours	1.75
46-60 credit hours	2.00

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 F'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.



Veterans

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

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

Credit Hours Enrolled * You Will Be Eligible For:

12 or more semester hours	full time benefits
9-11 semester hours	3/4 time benefits
6-8 semester hours	1/2 time benefits
1-5 semester hours	tuition and fees

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

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



Academic Information

Attendance
Courses by Arrangement
Independent Study
Travel for Credit
International Education
Advanced Standing Credit
KRCHE
Grading System
Honors
Academic Progress
Associate of Arts Degree
Graduation
Certificate Programs

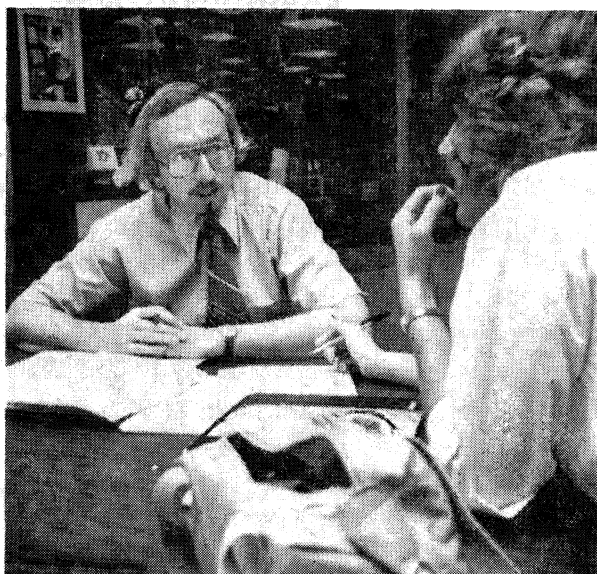
ACADEMIC INFORMATION

Attendance

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

Courses by Arrangement

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



Independent Study

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

Travel for Credit

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



International Education

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

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

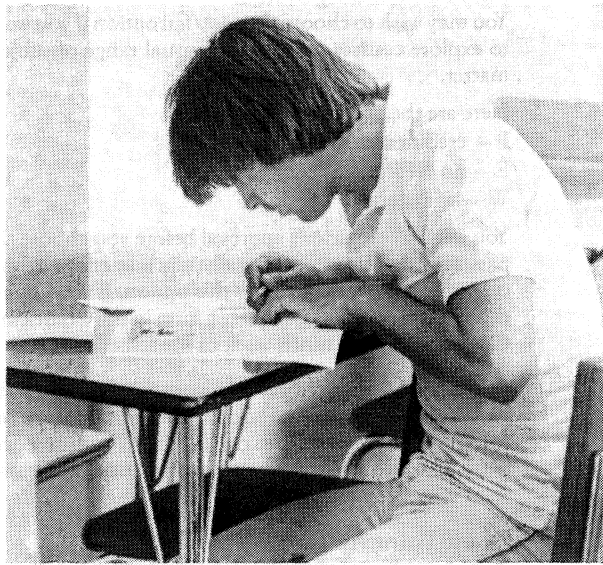
As part of the international relations program, JCCC maintains a sister college relationship with two colleges in Taiwan: the Taichung Institute of Commerce and the Taiwan Academy of Arts.

Advanced Standing Credit

If you have become knowledgeable in a particular area through self study, work experience or courses, you may be eligible to receive advanced standing credit. You may receive up to 30 hours of credit for non-classroom experiences. Following are several ways you can do it. For complete details, including scores required, contact the Testing/Assessment Center.

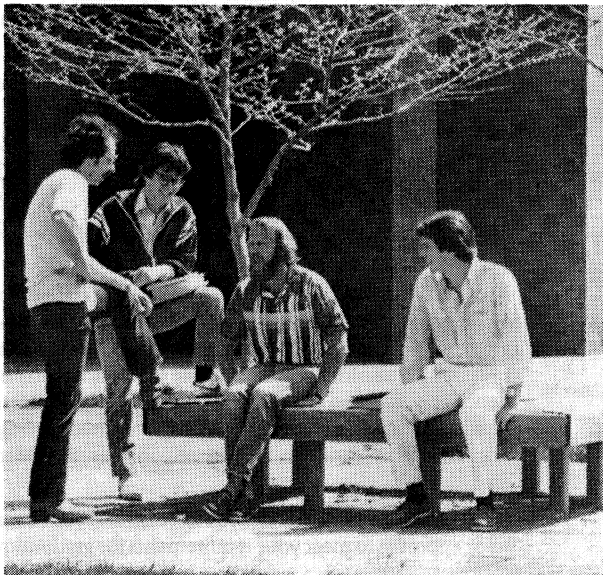
- **College Level Examination Program (CLEP):** You may gain credit through CLEP if you have knowledge of general information equivalent to that of a college freshman. The subject examination tests you in a specific area. Anyone may take the CLEP, regardless of age or education. If you're interested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

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



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

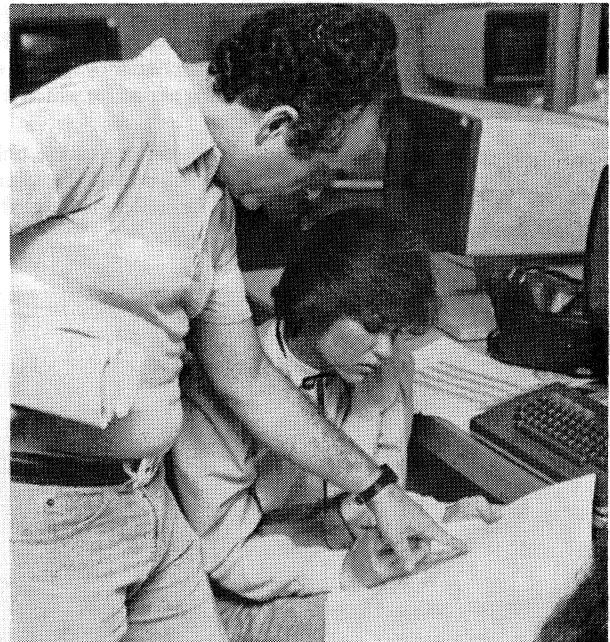
• **Military Service:** You will be granted six semester hours of health and physical development credit at JCCC by presenting when you apply a copy of Form DD-214 if you are discharged or Form D-295 if you are active. You may be granted credit for military educational experiences based upon the recommendations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



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

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

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



KCRCHE

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

This program provides a rich resource especially if you are interested in developing a creative academic program. Lists of courses are available in the Admissions Office. For more information contact the director of Admissions/Records. Additional information is available through the Office of the Regional Council, 912 E. 63rd Street, Kansas City, Missouri 64110, phone 361-4143.

Grading System

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

Regular Grading System

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

A – outstanding achievement of objectives

B – highly satisfactory achievement of objectives

C – adequate achievement of objectives

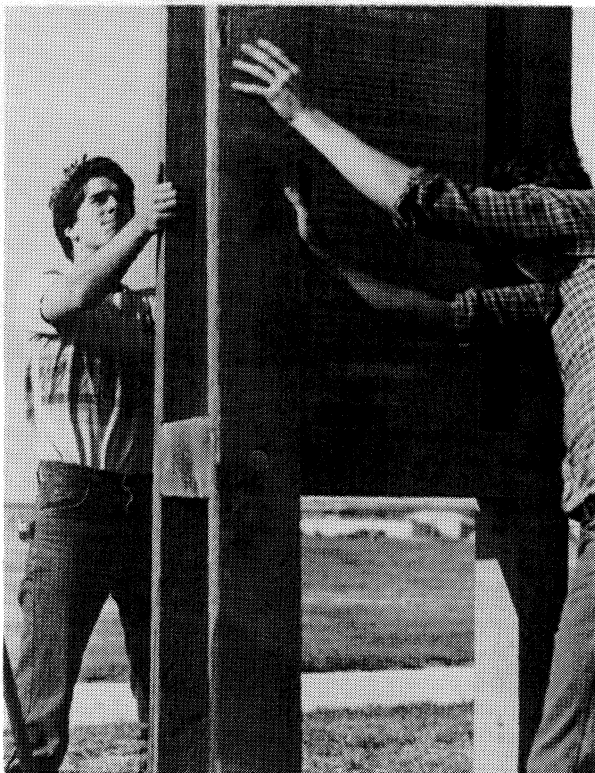
D – passing, marginal achievement of objectives

F – no credit, unsatisfactory achievement

W – withdrawal, without academic assessment (You may withdraw from a class up to one week before the last day of the semester. You will receive a “W” on your transcript if you withdraw after the official state reporting date of the 20th day of class and after one fourth of the summer or mini session has been completed. You will be considered withdrawn from a class only after you have completed a drop form in the Admissions/Records Office – not when you stop attending class.)

I – incomplete – You will receive this grade only if special circumstances prevent you from completing the course. Your instructor can explain how to complete the course. Usually you do not have to re-enroll in the class, but you will have to complete all course work by the end of the following semester. (An “I” will be changed to “F” if the instructor does not initiate a grade change by the end of the semester following the grading period for which the “I” was given.)

R – repeated course (Whenever you repeat a course, only the later credit and grade you earn will be used in computing your grade point average. The earlier grade for the course will be changed to “R.”)



Pass/Fail Grading System

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

Here are the grades you may earn:*

P – credit earned

F – no credit

W – withdrawn

You need a counselor's approval before you choose the pass/fail grading system. 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 “P” to “C” when computing grade point averages, or in some other way may penalize you.**

Grade Point Average

A – 4 grade points per semester credit hour

B – 3 grade points per semester credit hour

C – 2 grade points per semester credit hour

D – 1 grade point per semester credit hour

F – 0 grade point per semester credit hour

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

Honors

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

Academic Progress

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

Here are JCCC's guidelines for “satisfactory academic progress:”

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

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 and be currently enrolled during the term in which you wish to graduate. Credits earned through non-classroom experiences are not considered resident credits.

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

Intent to Graduate

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

Nov. 1 for fall graduation

April 1 for spring graduation

July 15 for summer graduation

Appeal to the director of Admissions/Records if you wish to extend these deadlines.

Commencement Exercises

Your degree status will be included on your permanent record as soon as you meet the graduation requirements and you will receive a diploma.

Graduation with Honors

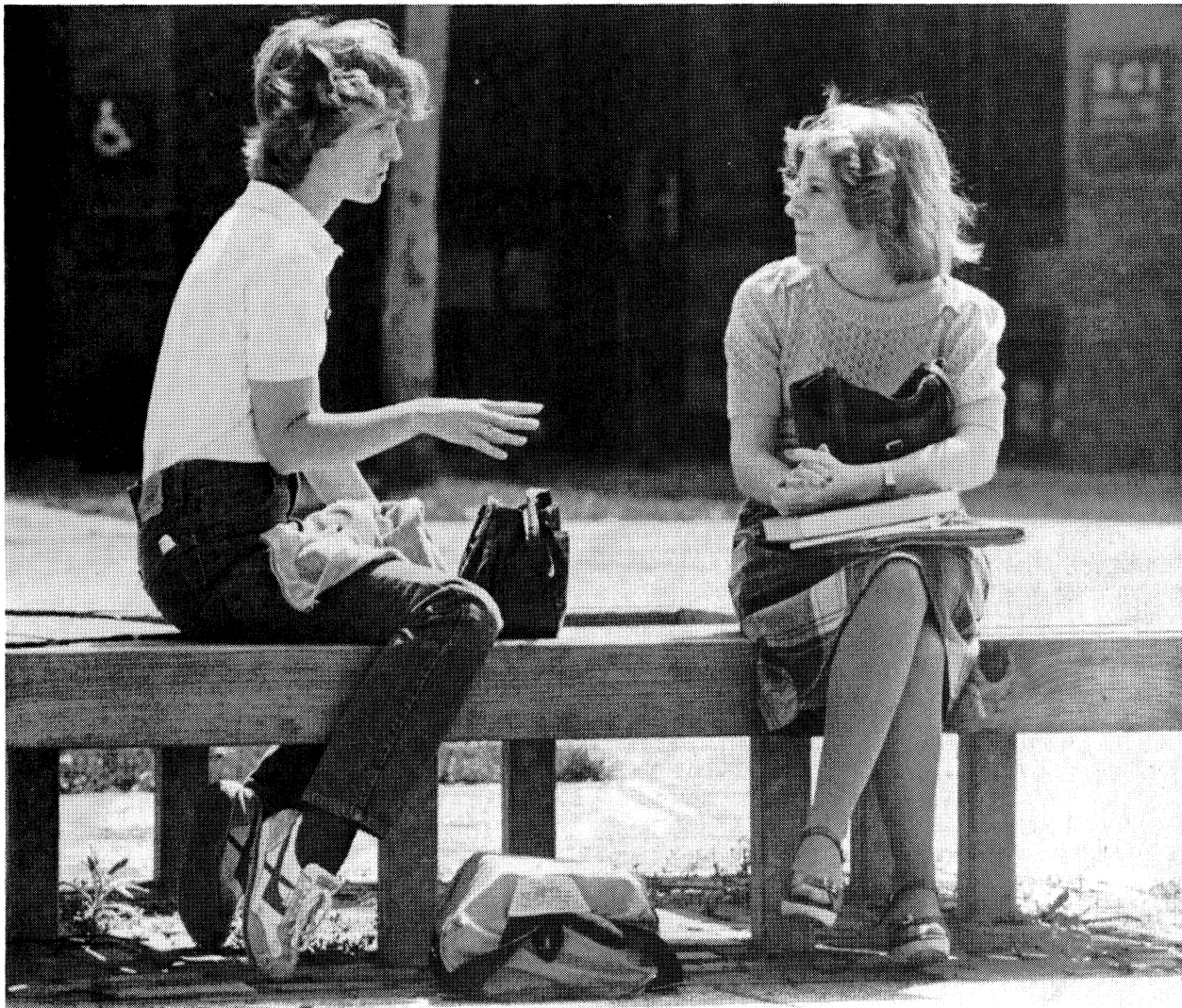
You will graduate "with honors" if you earn an overall grade point average of 3.5 or more in all courses that apply to your degree.

Certificate Program

You will be awarded a certificate of completion if you successfully complete a Board of Trustees-approved program that usually takes one year or less to complete and if you maintain a cumulative grade point average of 2.0 in pre-

scribed course work. Usually, you will be awarded a certificate of completion when you complete any of these programs:

- Automotive Technology
- Construction
- Emergency Medical Technician
- Emergency Mobil Intensive Care Technician
- Emergency Services Dispatcher Certification
- Energy Technology
- Family Economics
- Fire Administration
- Fire Prevention
- Fire Protection
- Hospitality Management
- Life and Home Management
- Maintenance
- Medical Transcription
- Paralegal
- Recreational Leadership
- Riding Instructor
- Secretarial
- Welding





Programs of Study

University Transfer Program
Career Programs

UNIVERSITY TRANSFER PROGRAM

JCCC offers the first two years of most college baccalaureate degree programs. You can attend JCCC for your first two years, earn an associate of arts degree and then transfer to a four-year institution without loss of time or credit. You can do this by following a transfer program.

If you plan to transfer after two years but you have not decided on a major, you should complete the general education courses required by most colleges.

If you have decided on a major, look closely at the four-year school's graduation requirements for that major. Some majors, such as architecture, fine arts and engineering, may require a special sequence of courses.

Carefully plan your first semester of courses with a JCCC counselor to make sure your courses transfer.

Transfer Programs

Business	Medicine and Health
Accounting	Pre-Veterinary
Business Administration	Pre-Med
Management	Pre-Pharmacy
Computer Science	Pre-Dental
Information Systems	Nursing
	Physical Therapy
	Respiratory Therapy
Education	Social Science
Early Childhood	Economics
Elementary/Secondary	History
Physical Education	Political Science
Recreation	Psychology
	Social Work
	Sociology
Engineering	Science and Math
(Pre-Engineering)	Biology
Architecture	Chemistry
Chemical Engineering	Geology
Civil Engineering	Mathematics
Electrical Engineering	Physics
Mechanical Engineering	
Petroleum Engineering	Technology
	Automotive
	Electrical Engineering
	Industrial Administration
Home Economics	
Interior Design	
Fashion Marketing	
Dietetics	
Liberal Arts	
Art	
English	
Foreign Language	
Journalism	
Music	
Philosophy	
Speech	
Theater	

Transfer Information

The following information on four-year colleges is available through the JCCC counseling center:

- transfer programs for different majors at area colleges – check these sheets periodically for updates
- university and college catalogs
- applications to four-year colleges

- general information including tuition, financial aid, housing
- course equivalencies between the four-year colleges and JCCC

If you are planning to transfer, select courses from general and distribution requirement areas as illustrated in the sample four-year degree. These courses, also known as the general education requirements of baccalaureate (four-year) degrees, will come from five divisions listed below. The number of courses required in each division will depend on the college or university you are transferring to and the major field you are entering. Look closely at your major field requirements when choosing your classes.

The following course suggestions may help. The sample program is intended only as a guide.

COMMUNICATIONS (3-4 courses)

CEN 2651	Fundamentals of English ¹	3
CEN 1000	Introduction to Writing ¹	3
CEN 7612	Composition I	3
CEN 5732	Composition II*	3

The next 3-6 hours could be Speech and/or Literature depending on your major.

CSP 4130	Public Speaking	3
CSP 4950	Interpersonal Communication	3

Composition II is a prerequisite for the following literature and composition courses:

CEN 5581	Poetry and Drama*	3
CEN 3898	Introduction to Fiction*	3
CEN 5582	American Writers*	3
CEN 5585	Literature of Science Fiction*	3
CEN 5583	World Masterpieces*	3
CEN 5584	Masterpieces of the Cinema*	3
CEN 5586	Children's Literature	3
CEN 5587	Adolescent Literature	3
CEN 5577	Advanced Composition*	3
CEN 5579	Creative Writing*	3

Some degrees (B.A.) may require foreign language. JCCC offers four semesters/16 hours each of Spanish, French and German.

CFL 3285	Elementary Spanish I	5
CFL 4570	Elementary French I	5
CFL 3196	Elementary German I	5

MATHEMATICS (1 course)

At least one math course usually is required. If you are unsure of your skills, the required math assessment test available in the Testing/Assessment Center will determine proper course selection.

MTH 2122	Fundamentals of Math ¹	3
MTH 7246	Introduction to Algebra ¹	3
MTH 3001	Intermediate Algebra ¹	3
MTH 6079	Algebra*	5
MTH 3427	College Algebra*	3
MTH 2594	Trigonometry*	3
MTH 6463	Calculus I*	3
MTH 3268	Analytic Geometry & Calculus I*	5

¹May not transfer to some four-year colleges.

*Check catalog for prerequisite.

A SAMPLE FOUR-YEAR DEGREE
(May vary with major. See a counselor.)

Total 124-128 hours		General Requirements			Distribution Requirements			
1st Two Years (First 60-64 hours which may be taken at JCCC)	English	Oral Comm.	Foreign Language (required for some degrees)	Math	Humanities	Natural Science and Math (incl. Lab Sci.)	Social Sciences	Electives
2nd Two Years (remaining 60-64 hours)	Courses taken in major field			Upper division courses taken not in major field			Electives	

HUMANITIES (2-3 courses)

You may use literature courses as humanities credits.

HUM 6120	Introduction to Humanities.....	3
HUM 5431	Comparative Cultures.....	3
CDR 1809	Introduction to Theater.....	3
HAR 1713	Introduction to Art History.....	3
HAR 3878	Modern Art History.....	3
HMU 8927	Intro. to Music Listening.....	3
HMU 2777	Intro. to Jazz Listening.....	3
HUM 7520	Intro. to Philosophy.....	3
HUM 6392	Logic.....	3
HUM 3080	Ethics.....	3
HUM 2532	Philosophy of Current Civilization...3	
HUM 2541	Philosophy of Religion.....	3

NATURAL SCIENCES (2-3 courses)

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

Biological Sciences

NLS 6540	Life Sciences (AVT Lab included)...4	
or		
NLS 5020	Principles of Biology and.....	3
NLS 5091	Principles of Biology Lab.....	1
NLS 5402	General Botany.....	5
NLS 4241	General Zoology.....	5
NLS 5593	Microbiology*.....	3
NLS 6057	Microbiology Lab*.....	2
NLS 6186	Human Anatomy/Physiology.....	5
NLS 1128	Human Anatomy.....	4
NLS 1144	Human Physiology*.....	4
NLS 6719	Environmental Science.....	3
NLS 6720	Environmental Science Lab.....	1
NLS 4248	General Genetics (no lab).....	3

Physical Science

NPS 1031	Physical Science (AVT lab included).4	
NPS 6070	Astronomy.....	4
NPS 4858	General Geology.....	5
NPS 6634	Principles of Chemistry.....	5
NPS 4515	General Chemistry I*.....	4
NPS 4516	General Chemistry I Lab*.....	1
NPS 3308	General Physics I*.....	5
NPS 5212	Engineering Physics I*.....	5

*Check catalog for prerequisite.

SOCIAL SCIENCES (2-3 courses)

History courses will transfer as humanities credits to some schools.

SS 3721	Physical Anthropology.....	3
SS 1029	Cultural Anthropology.....	3

SS 3404	Sociology.....	3
SS 3428	Social Problems.....	3
SS 5716	Marriage and the Family.....	3
SS 1068	Introduction to Psychology.....	3
SS 3546	Child Development*.....	3
SS 4639	Personality and Adjustment*.....	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 since 1877.....	3
SS 9922	European History from 1750.....	3
BUS 4512	Basic Economics.....	3
BUS 2253	Economics I.....	3
BUS 3093	Economics II.....	3

*Check catalog for prerequisites.

GENERAL ELECTIVES

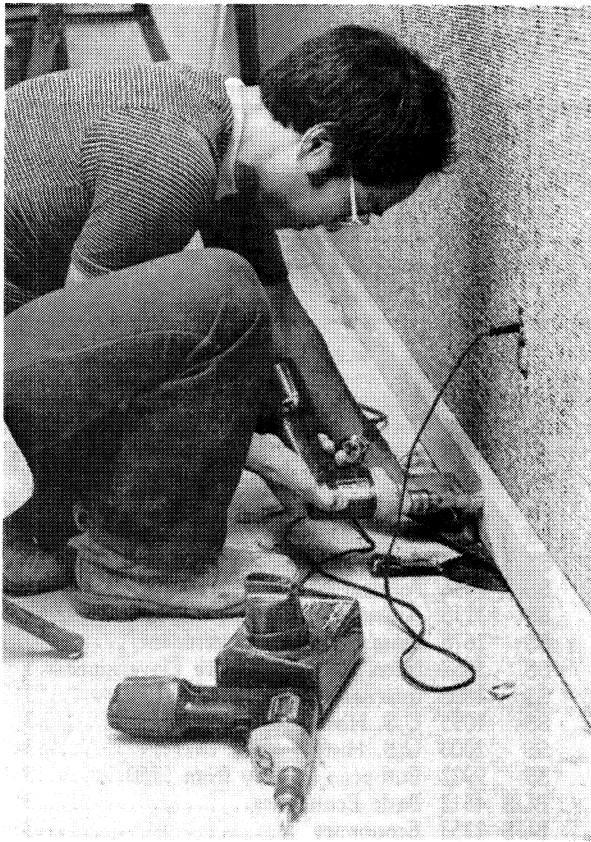
You may select an elective course from any area. However, check with a counselor first to make sure the course will transfer to a four year school. You may use electives to broaden your knowledge of your field of study or as an opportunity to explore a new area of interest.

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	Credits
Composition I.....	3
Social Science elective.....	3
Math/Natural Science elective.....	3-5
Humanities elective.....	3
General elective.....	3
Total Hours	15-17

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



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 38 career programs can be completed in two years or less. There are a few you can complete in one year or less. The career programs now offered are:

- Accounting
- Administration of Justice/Law Enforcement
- Agribusiness
- Automotive Technology
- Biomedical Equipment Technology
- Business Management
- Chef Apprenticeship
- Commercial Art
- Construction and Maintenance Technology
- Data Processing
- Dental Assisting
- Dental Hygiene
- Drafting Technology
- Electronics Engineering Technology
- Emergency Medical Technology
- Energy Technology
- Equine Studies
- Fashion Merchandising
- Fire Protection & Public Safety
- Home Economics
- Hospitality Management
- Interior Merchandising
- Interpreter Training
- Manufacturing Technology
- Marketing and Management

- Medical Laboratory Technology
- Medical Record Technology
- Medical Transcription
- 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 requirements, course selection and sequence, and job possibilities. Remember, your careful planning and course selection can be just as important in a career program as your dedication in the classroom.

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

NOTE:

- (F) Offered fall semester only.
- (S) Offered spring semester only.
- (R) Offered summer semester only.





ACCOUNTING

The accounting curriculum focuses on the skills you will need to enter the job market at a para-professional level after two years of post-high school study. If you are enrolled in a transfer program, you should visit with a counselor about the transferability of courses. Transfer students usually do not need to take the field study courses.

Required Accounting and Business Courses Credits

BAC 4092	Accounting I.....	3
BUS 1121	Business Law I.....	3
CEN 7612	Composition I.....	3
BAC 5096	Accounting II.....	3
BDP 7135	Business Data Processing	
	or	
BDP 6699	Program Fundamentals.....	3-4
BAC 3870	FS Human Relations.....	2-3
BUS 3093	Economics II.....	3
BAC 3872	FS Business Math.....	2-3
BAC 3871	FS Accounting Seminar.....	2-3
BUS 1007	Business Communications.....	3

BAC 6299	Intermediate Accounting I.....	3
	or	
BAC 2436	Cost Accounting.....	3
	or	
BAC 4218	Account. for Non-profit Org.....	3
	TOTAL HOURS.....	30-34

Required General Courses

Social Science.....	3
Math.....	3
Humanities.....	3
TOTAL HOURS.....	9

Recommended Electives..... 17-21

You must take 17-21 credit hours from courses listed below.

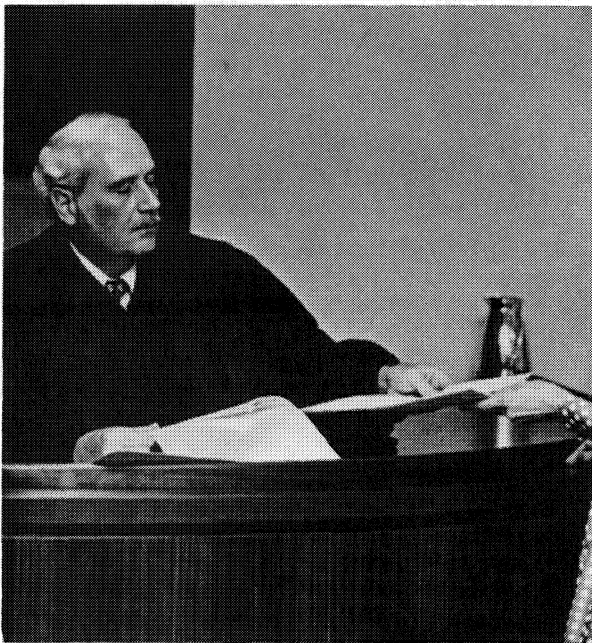
BUS 4282	Introduction to Business.....	3
BUS 5134	Business Law II.....	3
BAC 4063	Managerial Accounting.....	3
BAC 2436	Cost Accounting.....	3
BAC 4218	Acct. for Nonprofit Org.....	3
BUS 2253	Economics I.....	3
BAC 6299	Intermediate Accounting I.....	3
BAC 6294	Intermediate Accounting II.....	3
BUS 6038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



**ADMINISTRATION OF JUSTICE
LAW ENFORCEMENT**

The Administration of Justice Program can accommodate a variety of student career goals. Through individual selection of program electives, you may prepare for a career in law enforcement, probation, investigation or corrections. You should develop your program plan with a counselor.

Associate of Arts Degree	Credits
General Education Requirements	18
Required Program Core Courses	24
Required Program Electives	12
Free Electives	6
TOTAL HOURS	60



General Education Requirements

CEN 7612	Composition I	3
CEN 5732	Composition II	3
SS 3404	Sociology	3
SS 2678	State and Local Government	3
SS 1068	Introduction to Psychology	3
BSC 1263	Beginnng Typing*	3
	TOTAL HOURS	18

Required Justice/Law Enforcement 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

Correctional Services Offered at Longview College

Through a cooperative agreement with Longview Community College, you may take all or some of your 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.

SLE 7581	Principles of Correction	3
SLE 7580	Corrections in the Community	3
SLE 7582	Correctional Psychology	3
SLE 7587	Correctional Administration	3
SLE 7585	Internship in Corrections I	3
SLE 7586	Internship in Corrections II	3
SLE 7583	Theory of Child Care Work in Residential Treatment	3
SLE 7584	Methods of Interacting with Emotionally Sensitive Children	3

Recommended 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 3166	Juvenile Delinquency	3
SLE 7288	Defensive Tactics for Police**	3
SLE 2461	Motor Vehicle Law	3
SLE 6653	Traffic Safety/Accident Invest.	3
SLE 4033	Patrol Procedures	3
SLE 7292	Intro to Criminalistics	3
SLE 7161	Supervisory Techniques	3
SLE 7454	Police Organization & Management	3
SLE 1174	Readings in Police Science	3
SLE 5006	Fundamentals of Private Security	3
SLE 4163	Retail Security	3

Emergency Services Dispatcher Certification

SLE 7108	Study of Crim. Justice System	3
SLE 6432	Police and the Public	3
SLE 4033	Patrol Procedures	3
BSC 1263	Beginning Typing	3
BSC 2376	Intermediate Typing	3
BSC 1342	Records Management	3
CEN 7612	Composition I	3
CEN 5732	Composition II	3
SS 1068	Introduction to Psychology	3
SLE 5063	Field Study	3
	TOTAL HOURS	30

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

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



AGRIBUSINESS

JCCC's two year program emphasizes a familiarity with agribusines practices, sound business skills, basic knowledge about animal and plant science, and other skills you will need for many entry-level positions in the field. The

program includes agriculture, business, science and general education courses. The program also offers an optional work experience program through which it's possible to develop practical skills while working in the field.

Associate of Arts Degree

First Semester

NAB 2853	Intro to Agribusiness	2
CEN 7612	Composition I	3
NLS 6540	Life Science	4
	or	
NLS 5020	Principles of Biology	3
	and	
NLS 5091	Principles of Biology Lab	1
MTH 6079	Algebra	5
CSP 4950	Interpersonal Communication	3
	TOTAL HOURS	17

Second Semester

NAB 2846	Prin. of Animal Science	4
CEN 5578	Technical Writing	3
NPS 6634	Principles of Chemistry	5
	Elective (humanities or social science)	3
	TOTAL HOURS	15

Summer Session

NAB 3727	Supervised Occ. Experience	5
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Third Semester

BUS 7822	Principles of Management	3
BAC 2171	Small Business Accounting	3
NAB 2750	Agricultural Chemical Use	4
NAB 5207	Soil Science	4
	General Elective	3
	TOTAL HOURS	17

Fourth Semester

NAB 2854	Agricultural Economics	3
NAB 2852	Plant Science	4
BUS 7007	Marketing	3
BUS 1121	Business Law I	3
	Agribusiness Elective	3
NAB 1377	Computers in Agribusiness	1
	TOTAL HOURS	17



Agribusiness Electives

NAB 5205	Horticulture I	5
NAB 5206	Horticulture II	5
NAB 5204	Herbaceous Plant Materials	3
NAB 5203	Woody Plant Materials	5
NAB 2873	Fundamentals of Animal Nutrition	3
NAB 2857	Home Horticulture	2
NAB 5620	Fundamentals of Landscaping	3



AUTOMOTIVE TECHNOLOGY

In this program, you will have the opportunity to gain practical laboratory experience and the necessary theoretical background in diagnosis and tune-up, chassis, electrical and hydraulic systems, automatic transmissions, engines and emissions. The program focuses on the background you will need to advance to supervisory positions, deal directly with customers, estimate material and labor costs, and direct the work of others. It also is designed to prepare you to transfer to a four-year college in such areas as automotive engineering, industrial arts and vocational/technical education. A certificate program also is available.

Associate of Arts Degree

First Semester — Fall

TAU 5606	Auto Transmissions & Drivelines	4
EGR 7094	Technical Physics I	3
TMF 8031	Introduction to Welding	3
MTH 5722	Technical Math I	3
CEN 7612	Composition I	3
	TOTAL HOURS	16

Second Semester – Spring

TAU	5604	Auto Basic Electricity	.....3
TAU	5607	Auto Engines I	.....3
TAU	5605	Auto Suspension, Steering and Brakes	.....3
BUS	7822	Principles of Management	.....3
CEN	5578	Technical Writing	.....3
TOTAL HOURS			.....15

Third Semester – Fall

TAU	5608	Auto Electrical Systems	.....3
TAU	5609	Auto Fuels and Carburetion	.....3
TAU	5611	Auto Heating, A/C and Emissions	..4
Electives			.....6
TOTAL HOURS			.....16

Fourth Semester – Spring

TAU	5612	Auto Diagnosis and Evaluation	....4
TAU	5614	Auto Dealership Operation	.....3
EDT	7674	Graphic Communications	.....3
Elective			.....3
Technology Elective			.....3
TOTAL HOURS			.....16

Recommended Technology Electives

TSE	7240	Basic Small Engine Service	.....3
EET	5290	Introductory Electronics	.....3
		Auto Special Project*	.....3-4
		Cooperative Education*	.....3



Automotive Technology Certificate Program

The Automotive Certificate Program is designed to prepare its graduates for entry into the automotive service industry as technicians, service writers and other related service occupations. Four well-equipped modern laboratories provide an excellent opportunity for the student to develop skills in all automotive repair and service areas with the exception of auto body. The student receives practical laboratory experience in welding, diagnosis and tune-up, chassis, electrical and hydraulic systems, automatic transmissions, engines including diesel, air conditioning and emission controls. Troubleshooting will be stressed in all areas.

First Semester – Fall

TAU	5606	Auto Transmissions & Drivelines	....4
TAU	5608	Auto Electrical Systems	.....3
TAU	5609	Auto Fuels and Carburetion	.....3
TAU	5611	Auto Heating, A/C and Emissions	...4

Second Semester – Spring

TAU	5604	Auto Basic Electricity	.....3
TAU	5612	Auto Diagnosis and Evaluation	....4
TAU	5605	Auto Suspension, Steering, Brakes	....3
TAU	5607	Auto Engines I	.....3

The following 12 credit hours must be completed in addition to the above courses.

TMF	8031	Introduction to Welding	.....3
MTH	5722	Technical Math	.....3
EGR	7094	Technical Physics	.....3
TAU	5614	Auto Dealership	.....3
TOTAL HOURS			.....39

*Courses being developed.



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.

Suggested Sequence of Courses

Credits

First Semester - Fall

MTH	9000	Math for Electronics I	.....5
EET	3409	Circuit Analysis I	.....3
EET	5290	Introductory Electronics	.....3
CEN	7612	Composition I	.....3
TOTAL HOURS			.....14



Second Semester - Spring		
MTH 9001	Math for Electronics II	5
EET 6029	Circuit Analysis II	3
EET 5886	Electronic Principles I	3
EET 9086	Digital Electronics I	4
TOTAL HOURS		15

Third Semester - Fall		
EET 9826	Electronic Principles II	3
EMT 7975	Biomedical Equipment Tech. II	4
EET 6036	Digital Electronics II	4
EGR 7094	Technical Physics I	3
NLS 6186	Human Anatomy & Physiology*	5
TOTAL HOURS		19

Fourth Semester - Spring		
EET 4464	Electronic Principles III	3
EMT 9824	Biomedical Equipment Tech. II	3
EET 4503	Microprocessors	3
EMT 4505	Biomedical Internship	3
EGR 9017	Technical Physics II	3
TOTAL HOURS		15

*May be taken 1st semester, 2nd semester or summer prior to third semester.

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



BUSINESS MANAGEMENT

The business management program emphasizes the skills needed to enter mid-management areas of any business. The program's objectives are to increase your awareness of your role as an employee and of the responsibilities of management; increase your skill in decision-making; and increase your awareness and appreciation of the basic functions of management including planning, organizing, directing and controlling. This program is flexible enough to meet the needs of students planning to assume positions of administration 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		Credits
First Semester		
CEN 7612	Composition I	3
BUS 4282	Introduction to Business	3
BDP 7135	Business Data Processing	3
BUS 2259	Personal Finance I	
or		
BUS 6038	Savings and Investment	3
or		
BUS 1390	General Insurance	3
or		
BUS 1446	Principles of Insurance	3
Elective		3
TOTAL HOURS		15
Second Semester		
BAC 4092	Accounting I	3
BUS 1007	Business Communication	3



CHEF APPRENTICESHIP

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.

Suggested Sequence of Courses	Credits
First Semester	
BHM 6037 Hospitality Management Fund	3
BHM 7028 Basic Food Preparation	3
BHM 2913 Practicum I	2
TOTAL HOURS	8
Second Semester	
BHM 4592 Seminar in Accounting	2-3
BHM 5185 Intermediate Food Preparation	3
BHM 4941 Practicum II	2
TOTAL HOURS	7-8
First Summer	
CEN 7612 Composition I	3
Elective	3-5
TOTAL HOURS	6-8
Third Semester	
BHM 4591 Menu Planning	2-3
BHM 2163 Fundamentals of Baking	3
BHM 5942 Practicum III	2
TOTAL HOURS	7-8
Fourth Semester	
BHM 7803 Advanced Food Preparation	3
BHM 4594 Seminar in Beverage Control	2-3
BHM 7943 Practicum IV	2
TOTAL HOURS	7-8
Second Summer	
CSP 4950 Interpersonal Communication	3
Elective	3-5
TOTAL HOURS	6-8
Fifth Semester	
BHM 2166 Food Specialties—Garde Manger	2-3
BHM 6944 Practicum V	2
BHM 4593 Seminar in Purchasing	2-3
TOTAL HOURS	7-9
Sixth Semester	
BHM 1388 Adv. Hosp. Mgmt.	3
BHM 4489 Supervisory Management	3
BHM 9945 Practicum VI	2
TOTAL HOURS	8



COMMERCIAL ART

In this professional program you will be challenged to develop the visual and technical skills, problem-solving abilities and creative versatility of an effective commercial artist. Exemplary standards, established through continuing consultation with the professional community, are maintained in each of the program courses. Class projects and outstanding studio facilities offer you in-depth experiences with the creative problem solving, processes, materials, tools and equipment you will encounter on the job. Full-time faculty and designers/artists working in the Kan-

sas City region teach the program courses. As a major objective of the program, you will develop a comprehensive professional portfolio to represent your skills to prospective employers after graduation. Each semester, in addition to course evaluations for grades, your work will be impartially critiqued by a team of professionals in our *Portfolio Review*, a program requirement. In *Commercial Art Field Study*, when you meet the entry standards, you will gain direct on-the-job experience in a Kansas City commercial art setting. There are no formal admission requirements into the Commercial Art Program, but for completion you must acquire the skills and perspective of the profession.

Required Program Courses Credits

The following courses do not require prerequisites. It is suggested that they be taken in this order, but any order is possible. Courses in this group are required prerequisites or corequisites for one or more of the remaining required or elective program courses.

HAR 2880 Design 2D	3
HCA 7205 Lettering	3
HAR 7209 Design, Color	3
HCA 6862 Basic Representation I	3
HPH 5555 Photography I	3
HAR 6021 Design, 3D	4

The following courses require specific prerequisites and/or corequisites or permission of the division director. Check the specific requirements in the course description section. If you have questions, contact the program coordinator or a counselor.

HCA 1861 Layout	3
HCA 4679 Visual Technology I	4
HCA 5863 Basic Representation II	3
HPH 3880 Photography III	3
HAR 4028 Silkscreen	3
HCA 6688 Visual Technology II	4
HCA 1689 Visual Communications I	4
HCA 9689 Visual Communications II	4
HCA 7690 Preparation of Portfolio	2
HCA 5691 Commercial Art Field Study	3

Recommended Electives

The following courses are recommended as contributing to professional preparation in commercial art. Select any three of these courses (or any other college courses) for a total of nine credit hours. Note that several of these courses require prerequisites.

HAR 7576 Drawing I	3
HAR 3033 Drawing II	3
HPH 6666 Photography II	3
HAR 2021 Life Drawing I	3
HAR 3564 Introduction to Printmaking	3
HCA 8853 Airbrush	3
HAR 1713 Introduction to Art History	3
HAR 3878 Modern Art History	3
CEN 7612 Communications I	3
CJO 2136 Fundamentals of Advertising	3
CJO 7139 Advertising Copy Writing	3
BUS 2259 Personal Finance I	3
BUS 4282 Introduction to Business	3



CONSTRUCTION AND MAINTENANCE TECHNOLOGY

This program focuses on various segments of light commercial and residential construction including concrete, masonry, plumbing, heating, air conditioning, electrical, rough framing and finish carpentry. After two semesters in the program you may elect to continue with advanced work in construction or to take the maintenance option. The construction option offers laboratory experience in framing and finishing a component building project with advanced work in related occupations. The maintenance option deals with all aspects of properly maintaining, remodeling or repairing existing buildings.

Associate of Arts Degree

Construction Technology

First Semester — Fall

TCM 9122	Introduction to Electricity	3
EDT 4011	Interpreting Architectural Drawings	2
TEN 6547	Energy Alternatives	3
TMF 8025	Metals Fabrication	3
MTH 5722	Technical Math I	3
MTH 8304	Computer Assisted Learning: BASIC	1
TOTAL HOURS		15

Second Semester — Spring

TCM 9134	Concrete and Masonry	3
CEN 7612	Composition I	3
TCM 9127	Millwork and Finish	3
TCM 9143	Construction Inspection and Safety	3
TCM 9136	Materials and Properties	3
TOTAL HOURS		15

Third Semester — Fall

TCM 9135	Environmental Systems	3
TCM 9120	Building Construction I	3
TCM 9126	Concrete Construction	3
	Elective	3
	Technical Elective	3
TOTAL HOURS		15

Fourth Semester — Spring

TCM 9131	Building Construction II	3
TCM 9137	Construction Management	3
EDT 1229	Building Construction Estimating	3
	Technical Elective	
	or	
	Construction/Maintenance Co-op	6
TOTAL HOURS		15

Suggested Technical Electives

TMF 8031	Introduction to Welding	4
	Advanced Masonry*	
TEN 6566	Residential HVAC Systems	3
	Diag. of Mech. and Elect. Problems*	4
	Plumbing Design and Installation*	3
	Mechanical Systems*	4
	Maintenance Procedures/Processes*	3
	Systems and Building Relationships*	3
	Building Operations Management*	3

Maintenance Certificate Program

TMF 8025	Intro. to Metal Fabrication	3
TCM 9134	Concrete and Masonry	3
TCM 9135	Environmental Systems	3
EGR 7118	Bldg. Materials and Construction	3
TCM 9127	Millwork and Finish	3
TCM 9136	Material and Properties	3
TCM 9120	Building Construction I	3
	Diag. of Mech. and Elect. Problems*	4
	Maint. Procedures and Processes*	3
	Mechanical Systems*	4
TOTAL HOURS		36

Construction Technology Maintenance Option

Associate of Arts Degree

First Semester — Fall

TCM 9122	Introduction to Electricity	3
EDT 4011	Interpreting Architectural Drawings	2
TEN 6547	Energy Alternatives	3
TMF 8025	Metals Fabrication	3
MTH 5722	Technical Math I	3
MTH 8304	Computer Assisted Learning: BASIC	1
TOTAL HOURS		15

Second Semester — Spring

TCM 9134	Concrete and Masonry	3
CEN 7612	Composition I	3
TCM 9127	Millwork and Finish	3
TCM 9143	Construction Inspection & Safety	3
TCM 9136	Materials and Properties	3
TOTAL HOURS		15

Third Semester — Fall

TCM 9120	Building Construction I	3
	Diag. of Mech. and Elect. Problems*	4
	Maint. Procedures and Processes*	3
	Elective	3
	Technical Elective	3
TOTAL HOURS		16

*Course being developed.

Fourth Semester — Spring

Mechanical Systems*	4
Building Operation Management*	3
Elective	3
Technical Elective	
or	
Construction/Maintenance Co-op	6
TOTAL HOURS	16

Suggested Technical Electives

TMF 8031 Introduction to Welding	4
Advanced Masonry*	3
TEN 6566 Residential HVAC Systems	3
Diag. of Mech. and Elect. Problems*	4
Plumbing Design & Installation*	3
Mechanical Systems*	4
Maintenance Procedures & Processes*	3
Systems & Building Relationships*	3
Building Operations Management*	3

*Course being developed.



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 un-scheduled 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. You will have the opportunity to code BASIC programs and other languages using an on-line editor. The course emphasizes practical experience. If you are already in the field of data processing, you may enroll in courses to upgrade and broaden your knowledge. You need 60 hours to graduate.

Required Data Processing Courses	Credits
MTH 3001 Intermediate Algebra	3
BAC 4092 Accounting I	3
BDP 6699 Programming Fundamentals	4
BDP 5105 EDITOR	1
BDP 4700 COBOL I	4
BDP 1702 COBOL II	4
BDP 1698 Assembler Language I	4
BDP 4551 Intro Systems Design/Analysis (F)	3
BDP 3869 Application Programming: Data Processing Topics (S)	2-3
BDP 3868 Application Programming: Applications (F)	2-3
BDP 6451 Operating Systems	3
TOTAL HOURS	33-35

Data Processing Electives

You must take three of the ten courses listed below and at least one elective language.

BDP 6703 FORTRAN	4
BDP 1684 Assembler Language II	4

BDP 7683 RPG/II Beginning	4
BDP 5832 RPG/II Advanced	4
BDP 7224 Teleprocessing (F)	3
BDP 1036 Data File Management	3
BDP 6005 OS/JCL	3
BDP 4023 PASCAL	4
BDP 4049 Fundamentals of BASIC	3
BDP 7135 Business Data Processing	3

Recommended Electives

CEN 7612 Composition I	3
CEN 5732 Composition II	3
CSP 4950 Interpersonal Communication	3
BAC 5096 Accounting II	3
HUM 6392 Logic	3
SS 1068 Intro. to Psychology	3
BUS 2253 Economics	3
MTH Math/Additional	

(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	Credits
CSP 4950 Interpersonal Communication	3
NPS 6634 Principles of Chemistry	5
CEN 7612 Composition I	3
SS 1068 Intro. to Psychology	3
NLS 6186 Human Anatomy/Physiology	5
SS 3404 Sociology	3
NLS 5593 Microbiology	3
NLS 6057 Microbiology Lab	2
BAC 2171 Small Business Accounting	3
NLS 6152 General Nutrition	3
PD 2711 First Aid	3
NS 5381 Medical Terminology I	2
TOTAL HOURS	38

Required Courses at PVCC

NDA 2041 Fundamentals of Dent. I	5
NDA 1044 Fundamentals of Dent. II	4
NDA 1052 Pre-clinical Practice	4
NDA 2855 Fundamentals of Dent. III	4
NDA 1047 Clinical Practice I	3
NDA 5048 Fundamentals of Dent. IV	3
NDA 6050 Clinical Practice II	5
Missouri Constitution*	3
TOTAL HOURS	31

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



DENTAL HYGIENE

The dental hygienist, as a member of the 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, Commission on Dental Accreditation. The program consists of two full academic years and one summer session. The dental hygiene clinic is located on campus. It is used to develop students' efficiency in clinical techniques, under the supervision of a licensed dentist and registered dental hygienists. In addition, learning experiences are arranged so students can assist in raising 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. Deadline for application for admission for fall is Feb. 15.



Suggested Sequence of Courses

Credits

First Semester

NDH 7252	Clinical Dental Hygiene I	6
NLS 5057	General Head/Neck Anatomy	4
NDH 7253	Developmental Dentistry	3
NPS 6634	Principles of Chemistry	5
TOTAL HOURS		18

Second Semester

NDH 7254	Clinical Dental Hygiene II	5
NDH 6266	Dental Radiology	2
NLS 6152	Nutrition	3
NLS 5593	Microbiology	3
NDH 7255	Periodontics	1
NDH 7256	Dental Health Education	1
SS 1068	Intro. to Psychology	3
TOTAL HOURS		18

Third Semester (Summer)

NLS 1144	Human Physiology	3
CEN 7612	Composition I	3
SS 3404	Sociology	3
TOTAL HOURS		10

Fourth Semester

NDH 7257	Clinical Dental Hygiene III	7
NDH 7258	Pathology and Periodontology	3
NDH 7259	Dental Therapeutics	3
NDH 5250	Dental Materials	2
NDH 7260	Community Dental Health	2
TOTAL HOURS		17

Fifth Semester

NDH 7261	Clinical Dental Hygiene IV	7
CSP 4950	Interpersonal Communication	3
TOTAL HOURS		10



DRAFTING TECHNOLOGY

This is a comprehensive program based on requirements for drafting technicians established by industries in the Kansas City area. A drafting technician's duties may include detailing production drawings and design in such disciplines as machine, structural, piping, mapping, illustration and electrical with applications in computers, photodrafting, and quality control. Projects and laboratory procedures in this program are similar to those used in industry. All courses in this program utilize the latest computer design, computer-aided manufacturing (CAD/CAM), photo-mechanical, microfilm and surveying equipment. The courses below in sequence emphasize the skills and knowledge required in a variety of drafting occupation areas.

Suggested Sequence of Courses

Credits

First Semester — Fall

EDT 5810	Technical Drafting I	5
EDT 1813	Reprographics I	2
MTH 5722	Technical Math I	3
MTH 8400	Computer-Assisted Instruction: BASIC	3
CEN 7612	Composition I (or Elective)	3
TOTAL HOURS		16

Second Semester — Spring

EDT 2811	Technical Drafting II	5
EDT 7812	Pictorial Drafting	2
MTH 5387	Technical Math II	5
	Drafting Elective	3
TOTAL HOURS		15

Third Semester — Fall

	Drafting Electives	5-8
EGR 7094	Technical Physics I	3
TMF 8033	Manufacturing Processes and Testing	3
	Drafting Co-op or Elective	2-3
TOTAL HOURS		13-17

Fourth Semester — Spring

		Drafting Electives or Drafting Co-op	.9
EGR	9017	Technical Physics II	3
EGR	7118	Building Materials & Construction	3
		TOTAL HOURS	15

Drafting Electives

(must be selected from courses below)

EDT	4072	Architectural/Structural Drafting (F)	4
EDT	4014	Process Piping (F)	3
EDT	5924	Electrial Drafting (S)	3
EDT	1229	Building Construction Estimating (S)	3
EDT	4015	Cartography & Land Surveying (S)	3
EDT	4011	Interp. Architectural Drawings (F)	2
EDT	2297	Technical Illustration**(F)	3
EDT	4010	Reprographics II**(S)	2
EDT	4012	Interp. of Machine Drawings**(S)	2
EDT	6016	Interp. of Welding Drawings (S)	2
EDT	7407	Tool Design	3
EDT	4013	Electronics Drafting	2

**Courses offered biannually.

(F) Offered fall semester only

(S) Offered spring semester only

Electives

(must be selected from courses below)

EDT	7674	Graphic Communication	1-7
EGR	1243	Engineering Graphics I	3
BUS	2253	Economics I	3
CSP	4950	Interpersonal Communication	3
HPH	5555	Photography I	3
BUS	2341	Personnel Management	3
MTH		Math (elective)	
NPS	1031	Physical Science (elective)	
CEN	5578	Technical Writing	3
EGR	7724	Prog. for Engr. and Science	4
BDP	5105	EDITOR	1



ELECTRONICS ENGINEERING TECHNOLOGY

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

Suggested Sequence of Courses

Credits

First Semester — Fall

EET	5290	Introductory Electronics	3
EET	3409	Circuit Analysis I	3
MTH	9000	Math for Electronics I	5
CEN	7612	Composition I	3
		TOTAL HOURS	14

Second Semester — Spring

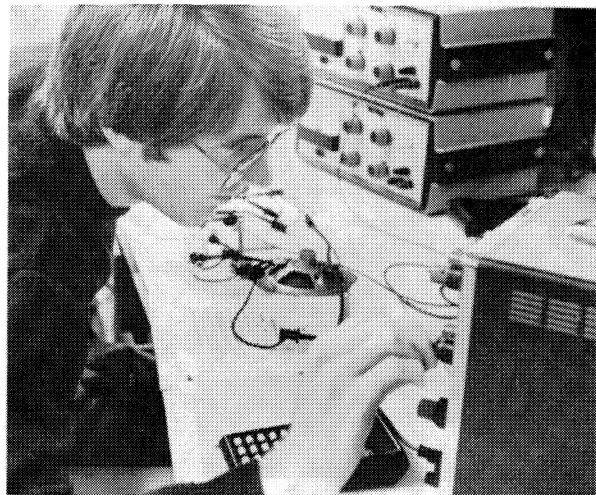
EET	6029	Circuit Analysis II	3
EET	5886	Electronic Principles I	3
EET	9086	Digital Electronics I	4
MTH	9001	Math for Electronics II	5
		TOTAL HOURS	15

Third Semester — Fall

EET	9826	Electronic Principles II	3
EET	6036	Digital Electronics II	4
EGR	7724	Programming for Eng. & Science	4
EGR	7094	Technical Physics I	3
CEN	5578	Technical Writing	3
		TOTAL HOURS	17

Fourth Semester — Spring

EET	4464	Electronic Principles III	3
EET	2468	Electronic Comm. Systems	3
EET	4503	Microprocessors	3
EGR	9017	Technical Physics II	3
		Non-technical Elective	3
		TOTAL HOURS	15



EMERGENCY MEDICAL TECHNOLOGY

In this program you can gain entry-level positions as either an Emergency Medical Technician (EMT) or as an Emergency Mobile Intensive Care Technician (EMICT). The core of studies for the EMT Program consists of one 5-credit-hour course. The core of studies for the EMICT Program consists of four courses totaling 42 credit hours. In each program a certificate is awarded upon successful completion, allowing the student to sit State Certification Examinations.

Emergency Medical Technician Program

This short-term certificate program requires approximately 120 class hours to complete. If you successfully complete the program, you will meet the prerequisite for taking the State Certification Examinations for Emergency Medical Technicians. 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, critical care units, and the emergency, obstetric and psychiatric departments. A simulated auto accident will help you gain first-hand experience in auto extrication. Physical stamina and dexterity are required. A \$45 course administration and development fee will be assessed by Kansas University Medical Center at the time of registration. This fee is nonrefundable. An additional testing fee will be assessed by the Bureau of EMS at the time of State Certification Examinations.

Any Semester Credits
 NET 4201 Emergency Medical Technician 5

Emergency Mobile Intensive Care Technician (Paramedic) Program

The EMICT (Paramedic), as a member of the Emergency Medical Services System, is qualified to administer medications, I.V. fluids and electrical shock therapy. This one-year certificate program is fully accredited by Kansas University Medical Center. The program consists of one full year including the summer. Classroom instruction covers applied anatomy and physiology, patient assessment, general pharmacology, cardiology, and management of traumatized and medical emergency patients. Clinical rotation in a hospital setting and field internship with an ambulance service are integral parts of the program. The program is highly accelerated and also requires a certain amount of physical stamina and dexterity. The prospective student must be currently certified as an EMT. The application packet for the EMICT Program, available in the Admissions/Records Office, includes information about deadlines, admission and options for meeting academic criteria. Upon successful completion of the sequence of courses listed below, the student will be eligible to take the certifying examination to become an EMICT.

Suggested Sequence of Courses

First Semester — Spring Credits
 NET 4204 EMICT I 10
 NET 4205 EMICT II 10
TOTAL HOURS 20

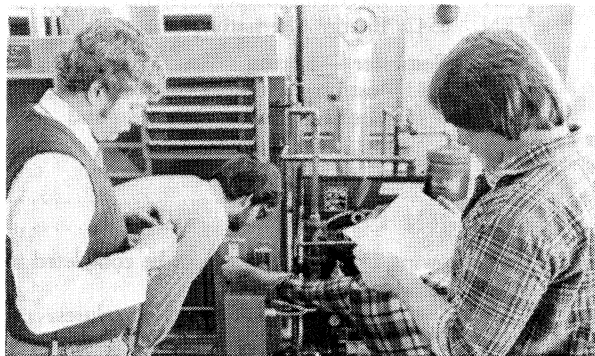
Second Semester — Summer
 NET 4206 EMICT III (Clinicals) 12
TOTAL HOURS 12

Third Semester — Fall
 NET 4207 EMICT IV (Field Internship) 10
TOTAL HOURS 10



ENERGY TECHNOLOGY

This two-year program includes basic theory, application, estimating, installation, maintenance and service of air conditioning, heating and ventilating systems. As a student in this program, you will have the opportunity to gain classroom and laboratory experience designed to develop your awareness of basic mathematical and scientific principles dealing with the control of temperature and quality of air and the design, testing, installation and development of heating and cooling systems. Special emphasis is placed on conservation of energy through computer management. Alternative sources of energy such as wind, photovoltaic and solar are explored through elective courses. A certificate program also is available.



Associate of Arts Degree

Suggested Sequence of Courses		Credits
First Semester — Fall		
TEN	6541 Basic Principles of HVAC	4
TEN	6539 Electromechanical Systems	3
TEN	6547 Energy Alternatives	3
MTH	5722 Technical Math I	3
EDT	7674 Graphic Communications	2
TOTAL HOURS		15

Second Semester — Spring		
TEN	6543 Instrumentation & Control Devices	4
TEN	6570 Residential HVAC Estimating	2
TEN	6546 Residential HVAC Systems and Service	3
MTH	8304 Computer-Assisted Learning: BASIC	1
EGR	7094 Technical Physics I	3
CEN	7612 Composition I	3
TOTAL HOURS		16

Third Semester — Fall		
TEN	6569 Commercial Systems—Air Conditioning	4
TEN	6553 Advanced Control Systems & Design	3
TMF	8032 Sheet Metal Pattern Development	3
		Electives 3
		Technical Elective 3
TOTAL HOURS		16

Fourth Semester – Spring

TEN	6548	Diagnosis and Service Procedures...	3
TEN	6571	Commercial Systems–Heating.....	4
TEN	6572	Energy Management Systems.....	3
		Electives	3
TMF	8031	Introduction to Welding	3
		TOTAL HOURS	16

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

TEN	6559	Passive Solar Fundamentals	3
TEN	6568	Domestic Solar Systems.....	3
TMF	8025	Intro to Metal Fabrication.....	3
TEN	6574	HVAC Cooperative Ed.	2-9
EET	5290	Introductory Electronics	3
		Refrigeration*	

*Course yet to be developed.

Energy Technology Certificate Program

First Semester – Fall

TEN	6541	Basic Principles of HVAC	4
TEN	6539	Electromechanical Systems	3
TEN	6547	Energy Alternatives	3

Second Semester – Spring

TEN	6543	Instrumentation & Control Devices	3
TEN	6546	Residential HVAC Systems and Service.....	3
MTH	8304	Computer-Assisted Learning: BASIC.....	1
CEN	7612	Composition I	3

The following 14 credit hours must be completed in addition to the above courses.

TEN	6548	Diagnosis and Service Procedures...	3
TEN	6569	Commercial Systems–Air Conditioning	4
TEN	6571	Commercial Systems–Heating.....	4
		Technical Elective	3
		TOTAL HOURS	34



EQUINE STUDIES

The Equine Studies Program emphasizes the skills you will need 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 36 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		Credits	
First Semester			
CEN	7612	Composition I.....	3
SES	4734	Stable Management	4
SES	2335	Equine Anatomy and Physiology	4



SES	4141	Basic Dressage	2
SES	3644	Intermediate Dressage	2
SES	1156	Basic Horseshoeing.....	3
		TOTAL HOURS	18

Second Semester

CEN	5732	Composition II	3
SS	1068	Introduction to Psychology	3
SES	2352	Basic Horse Training	2
SES	3820	Equine Health, Disease and Disorders.	4
You must take two of the following three courses:			
SES	2053	Beginning Hunter Seat Equitation....	2
SES	2746	Beginning Saddle Seat Equitation	2
SES	2066	Beginning Stock Seat Equitation	2
		TOTAL HOURS	16

Third Semester

CSP	4950	Interpersonal Communication	3
BAC	2171	Small Business Accounting	3
SES	1350	Equine Nutrition.....	4
SES	1103	Equine Showmanship	2
You must take two of the following three courses:			
SES	2054	Intermed. Hunter Seat Equitation	2
SES	2748	Intermed. Saddle Seat Equitation	2
SES	2067	Intermed. Stock Seat Equitation	2
		TOTAL HOURS	16

Fourth Semester

BUS	2341	Personnel Management	3
SES	3784	Advanced Horse Training	2
SES	3029	Equine Breeding and Management....	4
SES	1308	Equine Judging	3
You must take two of the following three courses:			
SES	2055	Advanced Hunter Seat Equitation	2
SES	2749	Advanced Saddle Seat Equitation	2
SES	2068	Advanced Stock Seat Equitation	2
		Elective	3
		TOTAL HOURS	18

Suggested Electives

SES	1184	Techniques of Riding Instruction I	2
SES	3489	Advanced Equitation Project	2
SES	1237	Techniques of Riding Instruction II....	2
PD	2711	First Aid.....	3

Riding Instructor Certificate Program

Suggested Sequence of Courses

First Semester

SES 4734	Stable Management	4
SES 1184	Tech. of Riding Instruction I	3
SES 4141	Basic Dressage	2
SES 2352	Basic Horse Training	2
SES 1308	Equine Judging	2

You must take two of the following three courses:

SES 2053	Beginning Hunter Seat Equitation	2
SES 2746	Beginning Saddle Seat Equitation	2
SES 2066	Beginning Stock Seat Equitation	2

TOTAL HOURS 17

Second Semester

SES 1237	Tech. of Riding Instruction II	3
SES 3644	Intermediate Dressage	2

You must take two of the following three pairs of courses:

SES 2054	Intermed. Hunter Seat Equitation	2
SES 2055	Advanced Hunter Seat Equitation	2
SES 2748	Intermed. Saddle Seat Equitation	2
SES 2749	Advanced Saddle Seat Equitation	2

SES 2067	Intermediate Stock Seat Equitation	2
SES 2068	Advanced Stock Seat Equitation	2

SES 1103	Equine Showmanship	2
SES 3784	Advanced Horse Training	2
SES 3489	Advanced Equitation Project	2

TOTAL HOURS 19



FASHION MERCHANDISING

In the Fashion Merchandising Program you will take courses related to merchandising, marketing and management – competitive areas in 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-scene 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 and San Francisco.

Suggested Sequence of Courses

Credits

First Semester

BFM 3863	Seminar: Human Relations	2-3
BFM 7013	Fashion Fundamentals I	3
BFM 3046	Fashion in Society	3
BMM 1026	Retailing	3
	Elective	3-4
TOTAL HOURS		14-16

Second Semester

BFM 3865	Seminar: Supervisory Develop.	2-3
BFM 1195	Textiles	3
BMM 2407	Creative Retail Selling	3
BFM 4655	Fashion Promotion	3
	Elective	3-4
TOTAL HOURS		14-16

Third Semester

BFM 3864	Seminar: Career Options	2-3
BFM 1019	Fashion Fundamentals II	3
BUS 7007	Marketing	3
BFM 1054	Fashion Display	3
CLC 1300	Job Search Skills	1
	Elective	3
TOTAL HOURS		15-16

Fourth Semester

BFM 3862	Seminar: Marketing Research	2-3
BFM 3503	Merchandise Evaluation	3
BUS 2253	Economics I	3
	Electives	6-7
TOTAL HOURS		14-16

Suggested Electives

BFM 2568	History of Dress	3
BFM 5294	Fashion Illustration I	3
BFM 1926	Fashion Illustration II	3
BFM 5149	Interior Design I	3
BFM 2925	Interior Design II	3
BFM 2259	Personal Finance	3
BFM 4092	Accounting I	3
HAR 7234	Fiber Design I	3
BUS 2341	Personnel Management	3
BUS 7822	Principles of Management	3
BDP 7135	Business Data Processing	3
CEN 7612	Composition I	3
MTH 2122	Fundamentals of Math	3
CSP 4950	Interpersonal Communication	3
SS 3404	Sociology	3
SS 1068	Intro. to Psychology	3



FIRE PROTECTION/PUBLIC SAFETY

The associate degree and certificate programs are designed to provide advanced professional training to fire fighters, architects, insurance adjustors 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. When pursuing a 30-credit-hour certificate, you should take the courses listed as second-year courses during the second semester. (See course description section.)

Prevention

EFS 1745	Fundamentals of Fire Prevention	3
EFS 3744	Building Construction for Fire Protection	3
EFS 4089	Fire Photography	3
EFS 1529	Fire Investigation	3
EFS 1527	Arson Investigation*	3
EFS 1528	Life Safety Code	3
EFS 1525	Extinguishing, Detection and Alarm Systems	3
	Electives	9
TOTAL HOURS		30

Administration

BUS	7822	Principles of Management	3
BUS	5360	Principles of Supervision	3
BUS	2341	Personnel Management	3
EFS	1532	Municipal Fire Administration	3
EFS	1526	Fire Science Law	3
EFS	1524	Emergency Management Operations	3
		Electives	12
		TOTAL HOURS	30

Protection

EFS	1743	Introduction to the Fire Science	3
EFS	1748	Fire Hydraulics	3
EFS	2577	Fire Hydraulics Lab	1
EFS	3757	Fire Apparatus and Equipment	3
EFS	5756	Fire Tactics and Strategy	3
EFS	6755	Rescue Practices	3
EFS	4481	Rescue Practice Lab	1
EFS	1523	Sprinklers and Standpipe Systems	3
EFS	1531	Hazardous Materials	3
		Electives	7
		TOTAL HOURS	30

Technical Electives

EFS	7981	Essentials of Fire Fighting	4
EFS	4256	Fire Vehicle Maintenance for Operators and Mechanics	1
EFS	4245	Fire Service Comm. Systems	1
EFS	4250	Fire Service Records & Reports	1
NET	4201	Emergency Medical Technician	5
NPS	6634	Principles of Chemistry	5
MTH	5722	Technical Math I	5
SLE	7108	Criminal Justice System	3
EFS	1524	Emergency Management Operations	3
EFS	6269	Independent Study: Fire Science	1-3

Nontechnical Electives

COM	5035	Fundamentals of Writing	3
CSP	4950	Interpersonal Communication	3
SS	1068	Intro to Psychology	3
		Public Relations	3
		Industrial Supervision	3
MTH	8400	Computer-Assisted Instruction: BASIC	3

*Check course description for prerequisite.



HOME ECONOMICS

Life and Home Management

Family Economics

Today's society is constantly changing. And there are few places these changes are felt more strongly than in the home. JCCC's home economics programs focus on how women—and men—can use their personal resources to adapt to the environment in which they live. Both programs emphasize interpersonal relations, management of personal and family resources, consumerism, nutrition, clothing and housing—skills that are useful in a variety of careers.

Life and Home Management

Associate of Arts Degree

30 hours in Life and Home Management and 30 hours in one of the existing career programs (or in General Education courses)

Suggested Sequence of Courses

Credits

First Semester

BLH	7004	Home Management	3
BIM	2564	Interior Design I	3
BLH	7003	Family Communications	3
		Electives	6
		TOTAL HOURS	15

Second Semester

BUS	2259	Personal Finance I	3
BFM	3046	Fashion and Society	3
BLH	2858	Housing and Equipment	3
		Electives	6
		TOTAL HOURS	15

Third Semester

BFM	1195	Textiles	3
BLH	2859	Nutrition/Meal Planning	3
		Electives	9
		TOTAL HOURS	15

Fourth Semester

BFM	3503	Merchandise Evaluation	3
BIM	2561	Interior Products	3
		Electives	9
		TOTAL HOURS	15

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
BUS	2259	Personal Finance I	3
BFM	3046	Fashion and Society	3
BIM	2564	Interior Design I	3
		TOTAL HOURS	15

Second Semester

BFM	1195	Textiles	3
BLH	2858	Housing and Equipment	3
BLH	2859	Nutrition & Meal Planning	3
BFM	3503	Merchandise Evaluation	3
BIM	2561	Interior Products	3
		TOTAL HOURS	15



Family Economics

Associate of Arts Degree

30 hours in Home Economics and 30 hours in one of the existing career programs (or in General Education courses)

Suggested Sequence of Courses

First Semester

BLH	7004	Home Management	3
BUS	2259	Personal Finance I	3
BLH	7003	Family Communications	3
		Electives	6
TOTAL HOURS			15

Second Semester

BUS	3566	Personal Law	3
BIM	2564	Interior Design I	3
BUS	6038	Savings and Investment	3
		Electives	6
TOTAL HOURS			15

Third Semester

BLH	2858	Housing and Equipment	3
BSC	1342	Records Management	3
		Electives	9
TOTAL HOURS			15

Fourth Semester

BFM	3046	Fashion and Society	3
BFM	3503	Merchandise Evaluation	3
BLH	2859	Nutrition & Meal Planning	3
		Electives	6
TOTAL HOURS			15

Certificate Program

30 hours Family Economics

Suggested Sequence of Courses

First Semester

BLH	7004	Home Management	3
BUS	2259	Personal Finance I	3
BLH	7003	Family Communications	3
BUS	3566	Personal Law	3
BIM	2564	Interior Design I	3
TOTAL HOURS			15

Second Semester

BUS	6038	Savings and Investment	3
BLH	2858	Housing and Equipment	3
BFM	3046	Fashion and Society	3
BFM	3503	Merchandise Evaluation	3
BLH	2859	Nutrition & Meal Planning	3
TOTAL HOURS			18



HOSPITALITY MANAGEMENT

You can 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 entry-level 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.

Associate of Arts Degree

Suggested Sequence of Courses

Credits

First Semester

BHM	6037	Hospitality Management Fund.	3
BHM	7028	Basic Food Preparation	3
CEN	7612	Composition I	3
BHM	4593	Seminar: Purchasing	2-3
		Elective	3-4
TOTAL HOURS			14-16

Second Semester

BHM	2275	Food Management	4
BHM	4489	Supervisory Management	3
BHM	4592	Seminar: Accounting	2-3
		Elective	3-6
TOTAL HOURS			11-15

Summer Session

BHM	2640	Seminar: Internship	3
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Third Semester

BHM	4591	Seminar: Menu Planning and Sales Promotion	2-3
BHM	4203	Hotel-Restaurant Operations	3
BHM	3903	Design Techniques	3
CSP	4950	Interpersonal Communications	3
		Elective	3-4
TOTAL HOURS			14-16

Fourth Semester

BHM	7803	Advanced Food Prep. & Meats	4
BHM	1388	Advanced Hosp. Management	3
BHM	4594	Seminar: Beverage Control	2-3
BHM	2166	Food Specialties	3
TOTAL HOURS			12-13

Certificate Program (30 credit hours)

BHM	6037	Hosp. Management Fund.	3
BHM	7028	Basic Food Preparation	3
CEN	7612	Composition I	3
BHM	4593	Seminar: Purchasing	2-3
BHM	2275	Food Management	4
BHM	4489	Supervisory Management	3
BHM	4592	Seminar: Accounting	2-3
BUS	2341	Personnel Management	3
BUS	2640	Seminar: Internship	3
		Electives	3-5
TOTAL HOURS			30-32

Suggestive Electives

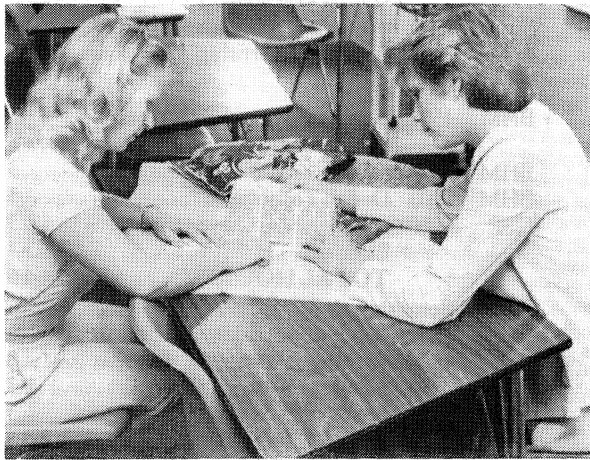
BDP	7135	Business Data Processing	3
CJO	2136	Fund. of Advertising	3
HUM	6392	Logic	3
PD	1020	Physical Fitness/Weight Training	1
SS	1068	Intro. to Psychology	3
BAC	2171	Small Business Accounting	3
BUS	2259	Personal Finance I	3
BUS	2341	Personnel Management	3
BMM	5026	Salesmanship	3
BUS	1121	Business Law I	3
BUS	5134	Business Law II	3
BUS	7007	Marketing	3
NLS	6540	Life Science	4
BLH	2859	Nutrition and Meal Planning	3



INTERIOR MERCHANDISING

The associate of arts degree program is designed to prepare you for a wide range of employment opportunities in the field of residential and commercial home furnishings in retail, wholesale or manufacturing areas. The program is a blend of formal course work and practical on-the-job training designed to enable you to see, select, coordinate and arrange quality and functional interior products and equipment for living or working environments.

The curriculum is a combination of professional, design and merchandising courses. It focuses on the technical, creative and merchandising skills you need in the interior products industry.



Suggested Sequence of Courses

	Credits
First Semester	
BIM 4153 Seminar: Human Relations	2-3
HAR 7576 Drawing I	3
BUS 7007 Marketing	3
BIM 2564 Interior Design I	3
MTH 2122 Fund. of Math (or equivalent)*	3
TOTAL HOURS	14-15
Second Semester	
BIM 4154 Sem: Supervisory Development	2-3
HAR 7209 Design, Color	3
BMM 5026 Salesmanship	3
or	
BMM 2407 Creative Retail Selling	3
BLH 2858 Housing and Equipment	3
Elective	3-4
TOTAL HOURS	14-16
Third Semester	
BIM 6602 Seminar: Practices & Procedures	2-3
BFM 1195 Textiles	3
BIM 4035 Space Planning	3
BIM 2565 Interior Design II	3
CLC 1300 Job Search Skills	1
Art Elective	3-4
TOTAL HOURS	14-17

Fourth Semester

BIM 5021 Seminar: Budget & Estimating	2-3
BIM 2561 Interior Products	3
BMM 1206 Retailing	3
BIM 3032 History of Interior Design	3
Elective	3-4
TOTAL HOURS	14-16

Suggested Electives

HAR 7234 Fiber Design I	3
HAR 7235 Fiber Design II	3
HAR 3878 Modern Art History	3
BAC 2171 Small Business Accounting	3
HAR 1608 Art Fundamentals	3
HAR 1713 Intro. to Art History	3
CEN 7612 Composition I	3
BMM 1303 Retail Advertising and Display	3
EDT 4011 Interpreting Architectural Drawings	2
HPH 5555 Photography I	3
BUS 1007 Business Communications	3
HAR 2880 Design 2-D	3

*See program coordinator or counselor for math placement requirement.



INTERPRETER TRAINING

This comprehensive program concentrates on skills in interpreting and basic knowledge and awareness of the hearing impaired necessary for most entry-level positions in interpreting. The trend for interpreting services for the future looks promising as more social agencies, school systems, medical services and industries are providing interpreter services for the hearing impaired.

Successful interpreters usually are flexible, outgoing and feel comfortable in front of a group. They also relate effectively to people and have a good command of the English language and American Sign Language.

During the last semester of the program you will participate in a practicum class that will give you interpreting experience with supervision in a variety of situations at JCCC and in the community.

Suggested Sequence of Courses

Credits

First Semester

AIT 4686 Non-Verbal Communication as a Sign Language Base	3
AIT 4687 Elementary ASL	8
AIT 4691 Orientation to Interpreting	3
AIT 4698 ASL Theory	3
TOTAL HOURS	17

Second Semester

AIT 4688 Intermediate ASL	7
AIT 4689 Advanced ASL I	5
AIT 4690 Fingerspelling I	3
AIT 5169 Understanding Deafness	3
TOTAL HOURS	18

Third Semester

AIT 4694	Advanced ASL II	3
AIT 4695	Fingerspelling II	1
AIT 5170	Interpreting I	6
CLC 4616	Vocabulary Development	1
TOTAL HOURS		13

Fourth Semester

AIT 4699	Advanced ASL III	1
AIT 5171	Interpreting II	3
AIT 4703	Interpreters and Physical "Burn Out"	1
AIT 5172	Practicum	3
	Electives	6
TOTAL HOURS		14



MANUFACTURING TECHNOLOGY

Graduates from the Manufacturing Technology Program will be prepared to seek entry-level employment in a variety of career fields: robot service and maintenance; metal machining and fabrication equipment service and sales; electronics service occupations and drafting.

Associate of Arts Degree

First Semester — Fall		Credits
TMF 8025	Introduction to Metal Fabrication	3
TMF 8033	Manufacturing Processes and Tests	3
MTH 9000	Math for Electronics	5
EDT 5810	Technical Drafting	5
TOTAL HOURS		16

Second Semester — Spring

TMF 8031	Introduction to Welding	3
TMF 8036	Metallurgy	1
EET 5290	Introductory Electronics	3
CEN 7612	Composition I	3
EDT 4012	Interpreting Machine Drawings	2
EDT 6016	Interpreting Welding Drawings	2
TOTAL HOURS		14

Third Semester — Fall

TMF 8019	MIG and TIG I	3
TMF 8034	Machine Tool Processes I	3
EET 3409	Circuit Analysis I	3
MTH 8304	Computer Assisted Learning: BASIC	1
	Technical Elective	3
	Elective	3
TOTAL HOURS		16

Fourth Semester — Spring

TMF 3462	Robotics	2
TMF 3463	Robotic Applications	2
EGR 7094	Technical Physics I	3
CEN 5578	Technical Writing	3
	Technical Elective	3
	Elective	3
TOTAL HOURS		16

Electives and Technical Electives

TMF 8035	Machine Tool Processes II	3
TMF 8021	V-Butt Arc Welding	3
TMF 8020	MIG and TIG II	3
EDT 2811	Technical Drafting II	5
EDT 7407	Tool Design	3
TMF 8016	Testing and Inspection	3
TMF 8032	Sheet Metal Pattern and Develop.	3
TEN 6572	Energy Management	3

Welding Certificate Program

First Semester — Fall

TMF 8031	Introduction to Welding	3
TMF 8019	MIG and TIG I	3
TMF 8034	Machine Tool Processes I	3
EDT 6016	Interpretation of Welding Drawings	2

Second Semester — Spring

TMF 8020	MIG and TIG II	3
TMF 8021	V-Butt Arc Welding	3
TMF 8035	Machine Tool Processes II	3
CEN 7612	Composition I	3

The following 10 credits must be completed in addition to the above courses:

TMF 8036	Metallurgy	1
TMF 8033	Manufacturing Processes and Testing	3
MTH 5722	Technical Mathematics I	3
TMF 8025	Introduction to Metal Fabrication	3



MARKETING AND MANAGEMENT

This comprehensive, two-year program is designed to prepare you for a career in retail, wholesale or manufacturing sales; 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.

Associate of Arts Degree

Required Courses		Credits
BMM 5026	Salesmanship or	3
BMM 2407	Creative Retail Selling	3
BMM 1206	Retailing	3
BMM 1303	Retail Advertising & Display	3
BUS 7007	Marketing	3
BUS 1121	Business Law I	3
BAC 2171	Small Business Accounting	3
BMM 2370	Sales Management	3
BUS 5360	Principles of Supervision	3
BUS 7822	Principles of Management	3
TOTAL HOURS		27

Work Experience Courses

BMM	3877	Sem: Organization & Operation	2-3
BMM	3873	Sem: Supervisory/Mgmt.	2-3
BMM	3874	Sem: Mgmt. Decision-Making	2-3
BMM	3876	Sem: Financial Analysis	2-3
BMM	3875	Sem: Marketing Research	2-3
TOTAL HOURS			10-15

Suggested Electives 18

BDP	7135	Business Data Processing	3
CEN	7612	Composition I	3
CSP	4950	Interpersonal Communication	3
BUS	4282	Introduction to Business	3
SS	3404	Sociology	3
SS	1068	Introduction to Psychology	3
BUS	4512	Basic Economics	3
BUS	2341	Personnel Management	3

- Math-related courses
- Fashion-related courses
- Advertising-related courses



MEDICAL LABORATORY TECHNICIAN

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

The program is designed so you will be prepared to pursue a bachelor's degree if you wish. The Medical Laboratory Technician Program is a cooperative program between JCCC and Penn Valley Community College. You must be formally accepted by both JCCC and Penn Valley Community College to be admitted into the program. The supportive courses will be held at JCCC and essential courses at Penn Valley. Register for all courses at JCCC. See a JCCC counselor for additional information.

Required Courses at JCCC

			Credits
NLS	6186	Human Anatomy and Physiology	5
NPS	6634	Principles of Chemistry	5
CEN	7612	Composition I	3
NLS	5593	Microbiology	3
NLS	6057	Microbiology Lab	2
NPS	2650	Principles of Organic Chemistry	5
MTH	3001	Intermediate Algebra	3
CSP	4950	Interpersonal Communications	3
TOTAL HOURS			29

Required Courses at PVCC

NLT	9759	Diagnostic Parasitology & Mycology	1
NLT	9760	Intro. to Clinical Lab	1
NLT	9761	Fund. Tech. & Proc.	3
NLT	9762	Diagnostic Microbiology	3
NLT	9763	Clinical Practicum I	5
NLT	9764	Clinical Chemistry	4
NLT	9765	Hematology	3

NLT	9766	Clinical Practicum II	10
NLT	9767	Departmental Seminar	3
NLT	9768	Applied Immunology	3
NLT	9769	Clinical Practicum III	10
Missouri Constitution*			3
TOTAL HOURS			49

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



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 teaches 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. To apply for admission into the program request "Admission Procedures" for the Medical Record Program from the Admissions/Records Office. The program is accredited by the American Medical Association Committee on Allied Health Education and Accreditation in collaboration with the American Medical Record Association.



Suggested Sequence of Courses Credits

First Semester

NMR	1135	Intro. to Med. Record Profession*	2
NMR	2681	Health Record Systems, Analysis and Controls*	3
NLS	6186	Human Anatomy/Physiology	5
CEN		Elective	3
		Elective	3
		TOTAL HOURS	16

Second Semester

NMR	2685	Health Statistics & Research Meth.*	2
NMR	2682	Classifications, Nomenclatures, Indices and Registries*	2
NLS	1037	Pathophysiology	3
BSC	4715	Medical Transcription	3
NS	2686	Medical Terminology IV*	3
NMR	7111	Directed Practice I*	3
		TOTAL HOURS	16

Third Semester

BDP	7135	Business Data Processing	3
NMR	2683	Quality, Assurance & Selected Health Record Systems*	3
NMR	1325	Directed Practice II*	4
BUS	2341	Personnel Management	3
		Elective	3
		TOTAL HOURS	16

Fourth Semester

NMR	2684	Legal Aspects of Med. Records*	2
NMR	2345	Departmental Seminar*	2
NMR	3117	Directed Practice III*	5
SS	1068	Intro. to Psychology	3
CEN		Elective	3
		Elective	3
		TOTAL HOURS	18

Electives

15 hours to be chosen from this list:

English	6
Mathematics	3
Humanities	3
Natural Science	4-5
Typing	3
Social Sciences	3
Speech	3

*Courses offered at Baptist Memorial Hospital.



MEDICAL TRANSCRIPTION

A medical transcriptionist types or transcribes medical reports that have been dictated on a recorder. Because of the nature and substance of the reports, a transcriptionist needs special skills. Usually a physician dictates medical data pertaining to medical history, diagnostic examination and studies, surgical procedures and other therapies related to a patient.

The program focuses on the skills required to assume a position as a medical transcriptionist in a variety of health care settings such as hospitals, doctors' offices, and comprehensive health centers. JCCC faculty

teaches some of the courses at Baptist Memorial Hospital. You are responsible for providing your own transportation there. To apply for admission into the program, request from the Admissions/Records Office the Medical Record Program Admission Procedures.

Certificate Program

Suggested Sequence of Courses Credits

Fall Semester

NMR	1135	Intro. to Med. Rec. Profession*	2
NMR	2681	Health Records, Analysis, Controls*	3
NMR	6186	Anatomy and Physiology	5
CEN	7612	Composition I	3
		TOTAL HOURS	13

Spring Semester

NS	2686	Medical Terminology IV*	3
BSC	4175	Medical Transcription	3
NLS	1037	Pathophysiology	3
BWP	3468	Word Process Concepts	3
BWP	3467	Word Process Application	3
		TOTAL HOURS	17

Summer

NMT	3413	Medical Transcription Practicum*	4
		TOTAL HOURS	32

*Courses offered at Baptist Memorial Hospital.



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.

Nonclinical Courses at JCCC

Credits

SS	1068	Introduction to Psychology	3
SS	3546	Child Development	3
SS	3428	Social Problems	3
SS	5716	Marriage and the Family	3
NLS	6186	Human Anatomy/Physiology	5
		TOTAL HOURS	17

Clinical Courses at Rainbow Unit

NMH	8881	Mental Health Technology I	4
NMH	2883	Mental Health Technology II	6
NMH	7884	Mental Health Technology III	6
NMH	4885	Mental Health Technology IV	7
		TOTAL HOURS	23

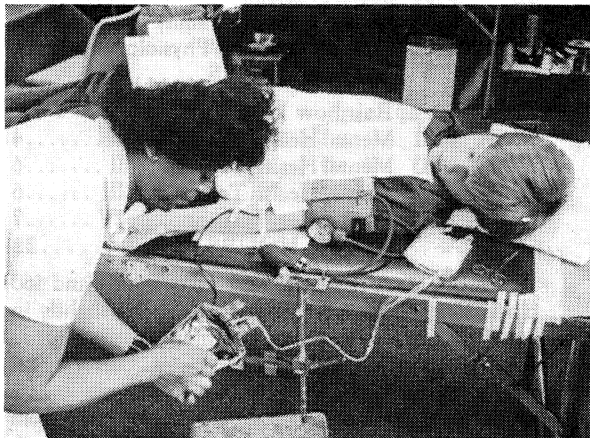
About 480 clock hours are devoted to theory and 460 clock hours to clinic or laboratory. This is slightly in excess of the state-required minimum, but is built as much as possible around courses JCCC currently offers. An additional 20 hours of credit classes are required to receive an Associate of Arts 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 deadline for application for admission is Feb. 15. 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.

Sequence of Courses		Credits
Summer		
NPS	6634 Principles of Chemistry**	5
First Semester		
NLS	1128 Anatomy	4
SS	1068 Intro. to Psychology	3
NRN	8846 Concepts of Health (F)	8
TOTAL HOURS		15
Second Semester		
NLS	1144 Physiology	4
SS	3546 Child Development	3
NRN	3131 Adaptation to Change (S)	8
TOTAL HOURS		15
Third Semester		
NRN	2847 Short Term Health Problems (F)	9
	Social Science Elective*	3
	English*	3
TOTAL HOURS		15
Fourth Semester		
NRN	5848 Long Term Health Problems (S)	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
ENGLISH: Composition I, II, Fundamentals of English, Introduction to 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.

(F) Offered in fall semester only.

(S) Offered in spring semester only.



PARALEGAL

The Paralegal Program focuses on the skills needed for a career as a paralegal or legal assistant. By completing the courses in the sequence listed, it is possible to gain an understanding of the law and paralegal skills needed to pursue a career in the legal field 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. 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, summarize and interpret a variety of legal documents and pleadings
- analyze, compile and utilize information from legal and technical sources, including legal research
- conduct client and witness interviews and investigations
- 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

Required Courses		Credits
BPL	9739 Introduction to Paralegalism	3
BPL	7740 Legal Research and Writing	3
BPL	3866 Seminar: Workers' Compensation and Bankruptcy	2-3
BPL	3867 Seminar: Legal Interviewing and Investigation	2-3
CEN	7612 Composition I	3
CSP	4950 Interpersonal Communication	3
	Paralegal Electives (see list)	18
	General Electives	24-26
TOTAL HOURS		60

Certificate Program

Required Courses

BPL	9739	Introduction to Paralegalism	3
BPL	7740	Legal Research & Writing	3
BPL	3866	Seminar: Workers' Compensation and Bankruptcy	2-3
		or	
BPL	3867	Seminar: Legal Interviewing and Investigation	(2-3)
CEN	7612	Composition I	3
CSP	4950	Interpersonal Communication	3
		Paralegal Electives (see list)	12
		General Electives	3-4
		TOTAL HOURS	30

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. See a JCCC counselor for additional information.

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

Required Courses at JCCC Credits

NS	5381	Medical Terminology I	2
NLS	6540	Life Science	4
SS	1068	Introduction to Psychology	3
NPS	6634	Principles of Chemistry	5
SS	3404	Sociology	3
NLS	1128	Human Anatomy	4
CEN	7612	Composition I	3
CSP	4950	Interpersonal Communications	3
NLS	1144	Physiology	4
		TOTAL HOURS	31

Required Courses at PVCC

NPT	9770	Introduction to Physical Therapy	2
NPT	8847	Fundamentals of Modalities I	3
NPT	9772	Kinesiology	4
NPT	8848	Fundamentals of Modalities II	5
NPT	9774	Rehabilitation	4
NPT	9775	Therapeutic Exercise	5
NPT	9776	Clinical Pathology	3
NPT	9777	Clinical Experience I	3
NPT	9778	Clinical Seminar I	1
NPT	9779	Clinical Experience II	11
NPT	9780	Clinical Seminar II	2
		Missouri Constitution*	3
		TOTAL HOURS	46

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



RADIOLOGIC TECHNOLOGY

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

Required Courses at JCCC		Credits
SS 1068	Introduction to Psychology	3
CEN 7612	Composition I	3
SS 3404	Sociology	3
NPS 1031	Physical Science	4
CSP 4950	Interpersonal Communications	3
NLS 6186	Anatomy and Physiology	5
TOTAL HOURS		21

Required Courses at PVCC		Credits
NRD 9801	Medical and Radiology Terms	3
NRD 9802	Radiologic Technology I	3
NRD 9803	Radiographic Exposures I	3
NRD 9804	Radiographic Positioning I	3
NRD 9805	Clinical Training I	2
NRD 9806	Radiographic Exposures II	3
NRD 9807	Clinical Training II	2
NRD 9808	Radiographic Positioning II	3
NRD 9815	Clinical Training III	1
NRD 9809	Radiographic Positioning III	3
NRD 9816	Clinical Training IV	2
NRD 9810	Radiologic Technology II	3
NRD 9811	Physics of X-ray Equipment	4
NRD 9817	Clinical Training V	2
NRD 9813	Department Seminar	3
NRD 8012	Special Procedures	3
NRD 9818	Clinical Training VI	1
NRD 9819	Clinical Training VII	3
NRD 9820	Special Training Elective	9
	Missouri Constitution*	3
TOTAL HOURS		50-59

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



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 associate of arts 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 can 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.



Associate of Arts Degree

Suggested Courses		Credits
HAR 1713	Introduction to Art History	3
HAR 6193	Ceramics I	3
HAR 2089	Sculpture I	3
HMU 7669	Intro. to Music Fundamentals	2
HAR 7234	Fiber Design I	3
BUS 2259	Personal Finance	3
CEN 7612	Composition I	3
CEN 5732	Composition II	3
HUM 6120	Introduction to Humanities	3
CJO 3901	News Reporting I	3
NLS 6540	Life Science	4
NLS 6186	Human Anatomy/Physiology	5
CSP 4950	Interpersonal Communications	3
PD 4368	Personal Health & Comm. Hygiene	3
PD 7129	Archery I	1
SS 1068	Introduction to Psychology	3
SS 3404	Sociology	3
PD 1010	Racquetball (Beginning)	1

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/CPR	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
PRL 1379	Recreational Field Study	3
PD 6061	Spring Sports Officiating (S)	2
PRL 2571	Intro. to Therapeutic Recreational Services	3
TOTAL HOURS		13

It is recommended, but not mandatory, that you take five hours of electives in the fall semester and two hours in the spring semester.

(F) Offered only in the fall.

(S) Offered only in the spring.



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
NLS	6057	Microbiology Lab	2
CEN	7612	Composition I	3
MTH	3001	Algebra	3-5
TOTAL HOURS			28-30

Required Courses at Baptist

NRT	3370	Beg. Princ. of Resp. Therapy (R)	4
NRT	3371	Respiratory Therapy Equipment (R)	4
NRT	3372	Cardiopulmonary Medicine I (R)	1
NRT	3373	Clinical Cardiopulmonary Phys. (F)	4
NRT	3374	Clinical Practice I (F)	4
NRT	3375	Clinical Topics & Procedures I (F)	3
NRT	3376	Cardiopulmonary Medicine II (F)	2
NRT	3377	Respiratory Pharmacology (S)	2
NRT	3378	Clinical Practice II (S)	4
NRT	3379	Clinical Topics & Procedures II (S)	4
NRT	3380	Cardiopulmonary Medicine III (S)	2
TOTAL HOURS			34

(F) Offered in fall semester only.

(S) Offered in spring semester only.

(R) Offered in summer session only.



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 four Memory and two Mag Card II automatic typewriters. Machine transcription is taught on the latest equipment using 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.

Associate of Arts Degree

Suggested Sequence of Courses Credits

First Semester			
BUS	4282	Introduction to Business	3
CEN	7612	Composition I	3
BSC	2376	Intermediate Typing	3
BSC	4590	Shorthand II	3
BSC	3857	Secretarial Field Study I	2-3
TOTAL HOURS			14-15

Second Semester

BDP	7135	Business Data Processing	3
BSC	1342	Records Management	3
BSC	7633	Production Typing	3
or			
BWP	3467	Word Processing Applications I	3
and			
BSC	5190	Electronic Calculators	1
BSC	3858	Secretarial Field Study II	2-3
Electives			3
TOTAL HOURS			15-16

Summer Session

BSC	3861	Secretarial Field Study V*	2-3
			(Business Law I may be substituted.)

Third Semester

BSC	1272	Secretarial Procedures I	3
BAC	4092	Accounting I	3
or			
BAC	2171	Small Business Accounting	3
BSC	3859	Secretarial Field Study III	2-3
Electives			6-7
TOTAL HOURS			14-16

Fourth Semester

BSC	2317	Secretarial Procedures II	3
BUS	2253	Economics I	3
or			
BUS	4512	Basic Economics	3
BSC	3860	Secretarial Field Study IV	2-3
Electives			3-4
TOTAL HOURS			11-12

Recommended Electives

BSC	3630	Dictation and Transcription	3
BSC	4715	Medical Transcription	3
BSC	2267	Legal Secretary I	2
BUS	1007	Business Communications	3
BUS	2341	Personnel Management	3
BAC	5096	Accounting II	3
SS	1068	Intro. to Psychology	3
BUS	2259	Personal Finance	3
BSC	5189	Machine Transcription	3

There are five Secretarial Field Study courses required: Secretarial Field Study I-Management, Secretarial Field Study II-Human Relations, Secretarial Field Study III-Administrative Office Management, Secretarial Field Study IV-Business Math, and Secretarial Field Study V-Business Law.

Certificate Program

BSC	2326	Intermediate Typing	3
BAC	2171	Small Business Accounting	3
BSC	1272	Secretarial Procedures I	3
BSC	2317	Secretarial Procedures II	3
CEN	7612	Composition I	3
BSC	1342	Records Management	3
BSC	5190	Elec. Calculators	1
BWP	3467	and Word Processing Applications I	3
		or	
BSC	5189	Machine Transcription	3
BUS	1007	Business Communication	3
BSC	3857	Sec. Field Study I	2-3
BSC	3858	Sec. Field Study II	2-3
		TOTAL HOURS	30

There are two Secretarial Field Study courses required: Secretarial Field Study I-Management and Secretarial Field Study II-Human Relations.

Legal Secretarial Option

Recommended courses for students who wish to prepare for the Professional Legal Secretary examination while completing requirements for an associate of arts degree.

Required Courses

CEN	7612	Composition I	3
BSC	1342	Records Management	3
BSC	4590	Shorthand II	3
BSC	2376	Intermediate Typing	3
BSC	1272	Secretarial Procedures I	3
BSC	3858	Secretarial Field Study II	2-3
BSC	3860	Secretarial Field Study IV	2-3
BSC	2267	Legal Secretary I	2
BSC*		Legal Secretarial Procedures	3
BSC*		Legal Transcription	3
BAC	4092	Accounting I	3
		or	
BAC	2171	Small Business Accounting	3
BPL	7740	Legal Research and Writing	3
BPL	9739	Intro. to Paralegalism	3
BUS	1121	Business Law I	3
BUS	1007	Business Communications	3
		General Electives	16
		TOTAL HOURS	58-60

Recommended Electives

BWP	3467	Word Processing Applications I	3
BSC	5190	Electronic Calculators	1
BDP	7135	Business Data Processing	3
BUS	4282	Intro. to Business	3
BUS	5134	Business Law II	3
BSC	3630	Dictation and Transcription	3

*Course to be developed.

There are two Secretarial Field Study courses required: Secretarial Field Study II (Human Relations) and Secretarial Field Study IV (Business Math).

Word Processing Option

First Semester

BSC	2326	Intermediate Typing	3
CEN	7612	Composition I	3
BSC	5189	Machine Transcription	3
*		Word Processing Field Study I	2-3
		Electives	3-4

Second Semester

BSC	3467	Word Processing Applications I	3
BSC	3468	Word Processing Concepts	3
BSC	5190	Electronic Calculators	1
*		Word Processing Field Study II	2-3
		Electives	5-6

Third Semester

BSC	1342	Records Management	3
*		Word Processing Applications II	3
*		Word Processing Field Study III	2-3
		Electives	6-7

Fourth Semester

BDP	7135	Business Data Processing	3
BUS	1007	Business Communications	3
*		Word Processing Field Study IV	2-3
		Electives	6-7

There are four Word Processing Field Study Courses required: Word Processing Field Study I (Management), Word Processing Field Study II (Human Relations), Word Processing Field Study III (Administrative Office Management) and Word Processing Field Study IV (Business Math).

*Courses to be developed.

Electives

CLC	4612	English Grammar Review	1
CLC	4613	Spelling Improvement	1
CLC	4614	Reading Comprehension	1
CLC	4615	Reading Rate	1
CEN	2651	Fundamentals of English	3
BDP	5105	Editor	1
BDP	6699	Programming Fundamentals	4

Medical Secretary Option

First Semester

BSC	2326	Intermediate Typing	3
NS	5381	Medical Terminology I	2
CEN	7612	Composition I	3
BSC	1519	Shorthand I	3

		or	
BSC	3467	Word Processing Applications I	3
BSC	3857	Secretary Field Study I	2-3
		Electives	1-2

Second Semester

BSC	7633	Production Typing	3
NS	5381	Medical Terminology II	1
BSC	1342	Records Management	3
BSC	4590	Shorthand II	3

		or	
*		Word Processing Applications II	3
BSC	3858	Secretary Field Study II	2-3
		Electives	5-6

Third Semester

BSC 1272	Secretarial Procedures I	3
NS 4165	Medical Terminology III	1
BAC 2171	Small Business Accounting	3
BSC 3860	Secretarial Field Study IV	2-3
	Electives	3-4

Recommended Electives

BSC 5190	Electronic Calculators	1
BDP 7135	Business Data Processing	3
BUS 1007	Business Communications	3
SS 1068	Introduction to Psychology	3
BSC 3630	Dictation and Transcription	3
NLS 6186	Human Anatomy/Physiology	3

*Courses to be developed.

There are four Secretarial Field Study courses required: Secretarial Field Study I (Management), Secretarial Field Study II (Human Relations), Secretarial Field Study III (Administrative Office Management) and Secretarial Field Study IV (Business Math).



SMALL ANIMAL HEALTH

This program concentrates on 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 accepted by both JCCC and Maple Woods to be admitted to the program.

Courses Offered at Maple Woods Credits

NAT 4894	Intro. to Small Animal Tech.	2
NAT 1895	Sanitation & Animal Care	2
NAT 7896	Clinical Mathematics	1
NAT 6897	Prin. of Animal Science I	3
NAT 3899	Prin. of Animal Science II	3
NAT 2901	Clinical Path. Techniques I	4
NAT 1902	Animal Health Internship	6
NAT 5903	Animal Hosp. Technology I	3
NAT 4904	Animal Tech. Anatomy	5
NAT 3905	Laboratory Animal Tech.	2
NAT 6906	Animal Hosp. Tech. II	3
NAT 6004	Clinical Path. Tech. II	5
NAT 6006	Large Animal Technology	4
NAT 8909	Radiology & Elect. Procedures	2
	TOTAL HOURS	45

Courses Offered at JCCC

NLS 4241	General Zoology	5
CEN 7612	Composition I	3
BAC 2171	Small Business Accounting	3
NPS 4515	General Chemistry I Lecture	4
	and	
NPS 4516	General Chemistry I Lab	1
	or	
NPS 6634	Principles of Chemistry	5

SS	American Government or American History elective	3
CSP 4950	Interpersonal Communications	3
NLS 5592	Microbiology	3
NLS 6057	Microbiology Lab	2
	TOTAL HOURS	27

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



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.

Required Courses at JCCC

NLS 5402	General Botany	5
CEN 7612	Composition I	3
BAC 4092	Accounting I	3
BUS 7007	Marketing	3
BUS 5360	Principles of Supervision	3
CSP 4950	Interpersonal Communications	3
BUS 1121	Business Law I	3
	Business Elective	3
	Elective	3
	TOTAL HOURS	29

Required Courses at Longview

NUA 8887	Horticulture I (F)	5
NUA 6888	Intro. to Urban Agribusiness (F)	1
NUA 3889	Horticulture II (S)	5
NUA 5890	Work Experience I (S)	3
NUA 2891	Plant Materials I (F)	3
NUA 7892	Work Experience II (S)	3
NUA 8893	Plant Materials II (S)	3
	Urban Agribusiness electives	9
	TOTAL HOURS	32

Elective Courses at Longview

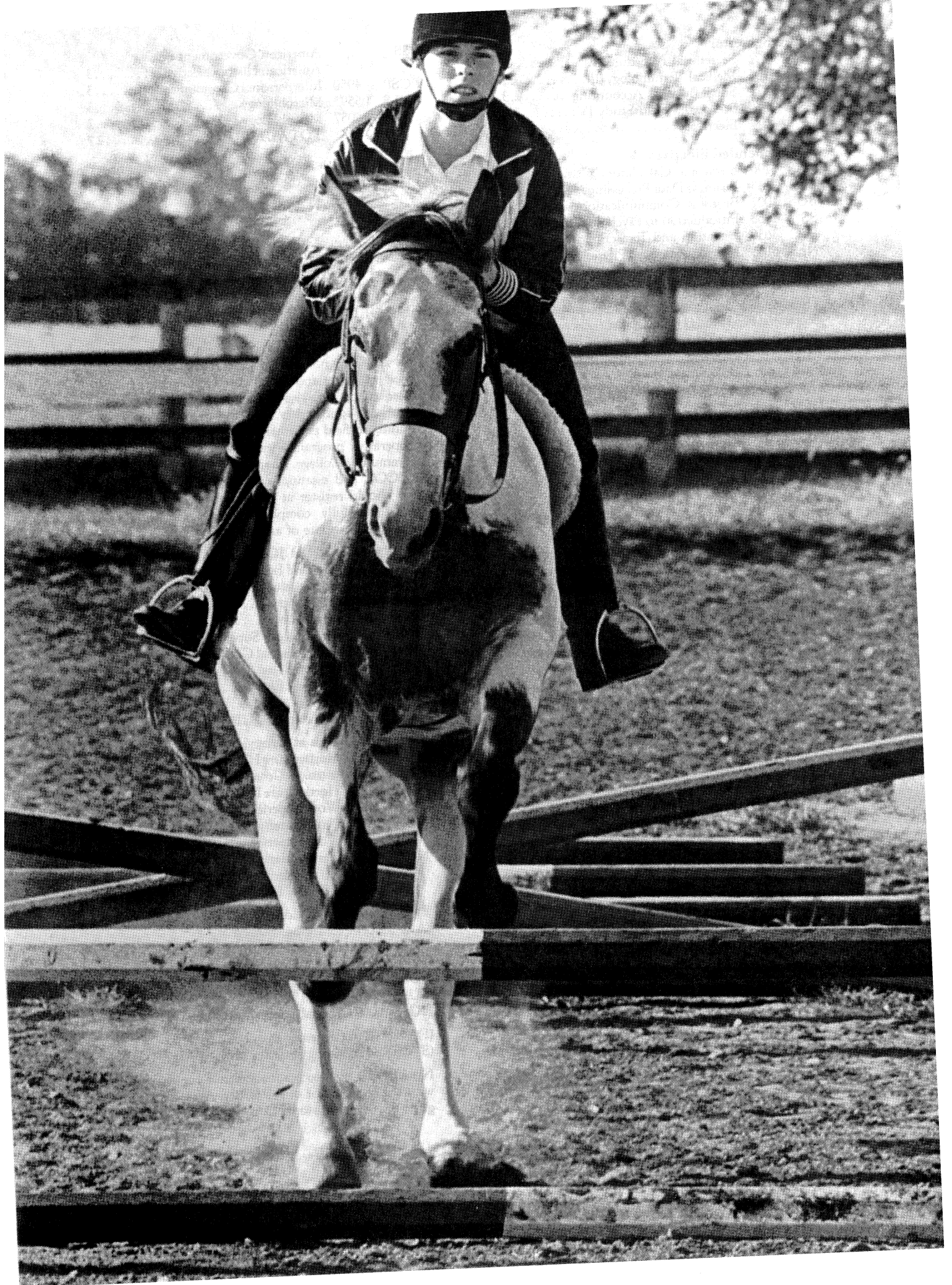
(Any 3 of the following courses)

NUA 2930	Landscape Horticulture	3
NUA 8937	Special Topics I	3
NUA 4007	Grounds Establishment	3
NUA 2938	Special Topics II	3
NUA 6009	Special Topics III	3

(F) Offered in fall semester only.

(S) Offered in spring semester only.

Note: If you plan to graduate from Longview, check with the coordinator of the Urban Agribusiness program about the Missouri Constitution requirement.



Courses Descriptions

ACCOUNTING

BAC 2171 SMALL BUSINESS ACCOUNTING . . . 3CR

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. Class meets three hours a week.

BAC 4092 ACCOUNTING I 3CR

Introduction to accounting fundamentals. Emphasis on the recording and analysis of transactions and the managerial use of financial statements. Class meets three hours a week.

BAC 5096 ACCOUNTING II 3CR

Prerequisite: BAC 4092. Continuation of BAC 4092 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.

BAC 2436 COST ACCOUNTING 3CR

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.

BAC 6299 INTERMEDIATE ACCOUNTING I 3CR

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.

BAC 6294 INTERMEDIATE ACCOUNTING II 3CR

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.

BAC 4063 MANAGERIAL ACCOUNTING 3CR

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.

BAC 2360 FEDERAL INCOME TAXES I 3CR

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.

BAC 4218 ACCOUNTING FOR NONPROFIT ORGANIZATIONS 3CR

Introduction to not-for-profit accounting and its primary users—federal, state and local governments; hospitals; and schools. Topics will include the primary funds and accounting groups, the budget process and practice variances among the major not-for-profit users according to the user's authoritative pronouncement. Class meets three hours a week.

BAC 3871 FIELD STUDY: ACCOUNTING SEMINAR 2-3CR

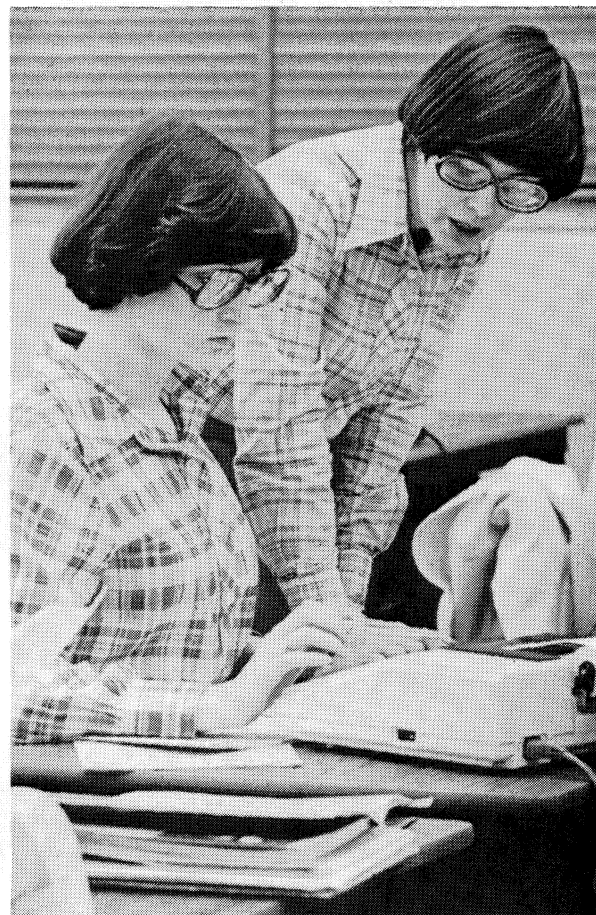
Prerequisite: BAC 5096. The seminar is designed for review of accounting principles and practice through the completion of several accounting cycles and practice sets. Class meets two hours a week.

BAC 3872 FIELD STUDY: BUSINESS MATH 2-3CR

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.

BAC 3870 FIELD STUDY: HUMAN RELATIONS 2-3CR

Emphasis is 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.



ADMINISTRATION OF JUSTICE/ LAW ENFORCEMENT

SLE 3045 BASIC POLICE TRAINING COURSE

..... 1-15CR
Prerequisite: Must be currently employed full-time by a participating law enforcement agency. Basic patrol procedures: traffic investigation and control, arrests, search and seizures. Fulfills and exceeds requirements of the Kansas Minimum Standards Training Act. May be applied as credit to satisfy requirements of the associate degree program in Administration of Justice. A minimum of 480 clock hours. Class meets five days a week, eight hours a day for twelve weeks.

SLE 2080 INTRODUCTION TO ADMINISTRATION OF JUSTICE. 3CR

Emphasis is on the historical and philosophical development of the criminal justice system. Participation in field and classroom experiences gives students the opportunity to explore career opportunities within the criminal justice system. Also included is examination of law enforcement processes, entry-level requirements for local, state and federal agencies. Class meets three hours a week.

SLE 6432 POLICE AND THE PUBLIC. 3CR

Identification and analysis of conflicts arising between police and the community they serve. Function of the police as a social institution within a free society. Class meets three hours a week.

SLE 7108 STUDY OF THE CRIMINAL JUSTICE SYSTEM 3CR

Analysis and identification of the subsystems of the criminal justice system. Class meets three hours a week.

SLE 5137 FUNDAMENTALS OF CRIMINAL INVESTIGATION 3CR

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.

SLE 7292 INTRODUCTION TO CRIMINALISTICS 3CR

Prerequisite: SLE 5137. 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.

SLE 7161 SUPERVISORY TECHNIQUES FOR POLICEMEN. 3CR

Prerequisite: SLE 7108. Current theory and practice of the supervisor's role in the police service. Class meets three hours a week.

SLE 3166 JUVENILE DELINQUENCY. 3CR

Analysis of detention procedures, disposition, custody and treatment of juvenile offenders throughout the United States, with a specific interest in area systems. Origin and development of juvenile agencies, organization functions and jurisdiction of juvenile courts. Class meets three hours a week.

SLE 4588 CRIMINAL LAW. 3CR

Kansas Criminal Code with emphasis on elements of crimes and criminal procedure. Class meets three hours a week.



SLE 2461 MOTOR VEHICLE LAW 3CR

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.

SLE 7454 POLICE ORGANIZATION AND MANAGEMENT 3CR

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.

SLE 6653 TRAFFIC SAFETY AND ACCIDENT INVESTIGATION 3CR

Study of traffic safety and enforcement. Identification and analysis of the accident and investigative function of the police. Preparation of scale diagrams of accident situations. Class meets three hours a week.

SLE 4418 CONSTITUTIONAL CASE LAW. . . 3CR

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.

SLE 4263 CRIME PREVENTION. 3CR

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.

SLE 1585 CRIMINOLOGY 3CR

Manifestations of crime and theories of criminal behavior. Process and purpose of treatment, correction, crime prevention and control. Contemporary trends. Class meets three hours a week.



SLE 4033 PATROL PROCEDURES 3CR

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.

SLE 7288 DEFENSIVE TACTICS FOR POLICE 3CR

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 ammunition for qualification with service revolver. Class meets three hours a week.

SLE 5006 FUNDAMENTALS OF PRIVATE SECURITY 3CR

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.

SLE 4163 RETAIL SECURITY 3CR

Study of retail security supervision and management techniques, including survey of employment practices, safeguards against employee dishonesty, methods of controlling shoplifters, and building and perimeter physical protection. Class meets three hours a week.

SLE 5063 EMERGENCY DISPATCHER FIELD STUDY 3CR

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.

SLE 1174 READINGS IN POLICE SCIENCE . . 3CR

Prerequisite: 15 hours credit in Law Enforcement. Selected readings in police science, such as police administration, criminal investigation, criminology, corrections, juvenile problems, evidence. Hours by arrangement.

SLE 7581 PRINCIPLES OF CORRECTIONS . . 3CR

Prerequisite: Approval of division director. Topics in this course include the historical development and philosophy of corrections; ancient codes; medieval justice; development of corrections including parole, probation and community treatment. Class meets three hours a week.

SLE 7580 CORRECTIONS IN THE COMMUNITY 3CR

Prerequisite: SLE 7581 and division director approval. This course will cover community correctional programs; diversion; half-way programs; prerelease centers; group homes; probation; and parole. Also discussed will be community processes needed to support these programs. Class meets three hours a week.

SLE 7582 CORRECTIONAL PSYCHOLOGY . . 3CR

Prerequisite: Approval of division director. In this class students will learn about psychological theories of crime and delinquency; diagnostic approaches used in correctional settings; psychopathology; classification procedures; and individual and group counseling techniques. Class meets three hours a week.

SLE 7583 THEORY OF CHILD CARE WORK IN RESIDENTIAL TREATMENT 3CR

Prerequisite: Approval of division director. The role of the child care worker will be explored in this course as well as basic theory of treatment; organizational structure; and problem-solving skills. Class meets three hours a week.

SLE 7584 METHODS OF INTERACTING WITH EMOTIONALLY SENSITIVE CHILDREN 3CR

Prerequisite: SLE 7583 and approval of division director. The goals and needs of children, especially emotionally sensitive children, will be discussed in this course. Other topics include selecting, implementing and evaluating procedures for intervention in problem behavior and practical application of methods. Class meets three hours a week.

SLE 7585 INTERNSHIP IN CORRECTIONS I . . 3CR

Prerequisites: SLE 7581 and approval of division director. This internship is designed to provide on-the-job training in corrections. Fifteen hours a week.

SLE 7586 INTERNSHIP IN CORRECTIONS II . . 3CR

Prerequisites: SLE 7585 and approval of division director. This internship is designed to provide on-the-job training in corrections. Fifteen hours a week.

SLE 7587 CORRECTIONAL ADMINISTRATION 3CR

Prerequisite: SLE 7581 and approval of division director. This survey of current management patterns in correctional agencies includes discussion of management by objectives and accountability; public relations; training; budgeting; record keeping; and custody and treatment classifications. Class meets three hours a week.

AGRIBUSINESS

NAB 5620 FUNDAMENTALS OF LANDSCAPING 3CR

The basic principles and practices involved in residential and commercial landscaping will be examined in this course. Topics include development of a landscaping plan, identification of landscape materials, landscape management and construction of a residential landscape. Class meets for two hours lecture and two hours lab each week.

NAB 2857 HOME HORTICULTURE 2CR

An introduction to basic principles and practices used in management of home lawn, garden, and/or trees. The course will review the horticulture industry, examine career opportunities and provide opportunities for students to practice techniques commonly used in the industry. Class meets for one hour lecture and two hours lab each week.



NAB 3727 SUPERVISED OCCUPATIONAL EXPERIENCE 5CR

Prerequisite: Completion of first year of agribusiness program. Supervised work experience in an approved area of agribusiness. Class meets by arrangement.

NAB 2750 AGRICULTURAL CHEMICAL USE 4CR

Prerequisite: NPS 6634 or NPS 4515 and NPS 4516. This course examines the use of fertilizers, pesticides and other agricultural chemicals. Topics include selection, application, calibration of equipment and safety. Class meets for three hours lecture and two hours lab each week.

NAB 2846 PRINCIPLES OF ANIMAL SCIENCE 4CR

Prerequisite: NLS 4241 or NLS 6540 or NLS 5020 and NLS 5091. This course covers basic principles involved in animal production. Beef, swine, sheep, horse, and poultry species will be examined. Topics include a survey of the industry; types, purposes and products of livestock; breeding principles, selection, nutrition, lactation, reproduction; management, and marketing. Class meets for three hours lecture and two hours lab each week.

NAB 2873 FUNDAMENTALS OF ANIMAL NUTRITION 3CR

Prerequisites: NPS 6634 and NAB 2846. This course will examine the composition of various feedstuff classes, nutrient requirements of livestock, ration formulation and balancing, and various feed processing methods. Class meets for three lecture hours each week.

NAB 2852 PLANT SCIENCE 4CR

Prerequisite: NLS 5402 or NLS 6540 or NLS 5020 and NLS 5091. This course reviews basic principles involved in production of crop and forage plants. Topics include morphology, physiology, propagation, harvesting and storage of plants of economic importance. Class meets for three hours lecture and two hours lab each week.

NAB 2854 AGRICULTURAL ECONOMICS . . 3CR

The role of agriculture in today's economic system is studied in order to provide an understanding of current and persisting problems of managing food production and distribution. Basic microeconomics and concepts of supply and demand, profit maximization, price determination and marginal analysis will be studied and applied to agricultural problems. Class meets for three hours lecture each week.

NAB 2853 INTRODUCTION TO AGRIBUSINESS 2CR

A survey of agribusiness and its relationship to the general economy. Occupational opportunities in the field of agribusiness will be explored. Class meets two hours a week.

NAB 5203 WOODY PLANT MATERIALS . . . 3CR

Prerequisite: NAB 5206. This course emphasizes identification of woody plant materials used for ornamental purposes. Characteristics of each species will be reviewed and management techniques will be examined along with practices for a successful commercial nursery operation. Class meets for two hours of lecture and three hours of lab each week.

NAB 5204 HERBACEOUS PLANT MATERIALS 3CR

Prerequisite: NAB 5206. This course emphasizes identification of herbaceous plants for ornamental purposes. Characteristics and proper management techniques for commercially profitable growth are examined. Merchandising techniques for such plant materials will also be studied. Class meets for two hours of lecture and three hours of lab each week.

NAB 5207 SOIL SCIENCE 4CR

Prerequisites: NPS 6634 or NPS 4515, NPS 4516 and NPS 4455, NPS 4456. This basic course is designed to provide students with an understanding of the biological, physical and chemical properties of soils. Students will also examine soil moisture and fertility problems as each relates to soil use. Class meets for three hours of lecture and two hours of lab each week.

NAB 5205 HORTICULTURE I 5CR
Prerequisite: NLS 5402. This course examines the classification, taxonomy and nomenclature of the plant kingdom. Plant structure, physiology, reproduction and the interaction of various soil properties with plant growth will be studied. Class meets for three hours of lecture and four hours of lab each week.

NAB 5206 HORTICULTURE II 5CR
Prerequisite: NAB 5205. This course deals with the management practices commonly used in greenhouse and nursery production. Various methods of plant propagation, pruning and growth regulation will be demonstrated. Class meets for three hours of lecture and four hours of lab each week.

ART

HAR 1713 INTRODUCTION TO ART HISTORY 3CR
Historical study of art, tracing its development from pre-historic 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.

HAR 3878 MODERN ART HISTORY 3CR
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.

HAR 4099 ELEMENTARY ART METHODS 3CR
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.

HAR 1608 ART FUNDAMENTALS 3CR
An intensive exploration of the visual arts. Designed to acquaint students with art forms and applications. Class meets six hours a week.

HAR 3008 AMERICAN ART SINCE 1945 1CR
A study of American painting and drawing. Traces the development from 1945 to the present. Students will study work represented in the major museums and important commercial galleries, particularly those representing the New York school.

HAR 3333 DIRECTED READING IN CONTEMPORARY AMERICAN ART 1CR
Prerequisite: Permission of the division director. This course will explore the technical and philosophical points of view of contemporary American artists. A wide variety of styles will be considered. Students meet by arrangement. Class meets one hour a week.

HAR 2880 DESIGN, 2D 3CR
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.

HAR 7209 DESIGN, COLOR 3CR
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.

HAR 6021 DESIGN, 3D 4CR
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.

HAR 7576 DRAWING I 3CR
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.

HAR 3033 DRAWING II 3CR
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.

HAR 2021 LIFE DRAWING I 3CR
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.

HAR 6662 LIFE DRAWING II 3CR
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.

HAR 5004 PAINTING I 3CR
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.

HAR 6011 PAINTING II 3CR
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.

HAR 5405 WATERCOLOR PAINTING 3CR
Prerequisite: HAR 7576 or HAR 5004. Students will work from a variety of representational and non-objective situations using watercolor as a means to study color, value and composition in transparent media. Subject matter includes still lifes, models and landscapes as well as abstract problems with mixed media. Class meets six hours a week.

HAR 6879 STUDIO WORKSHOP I. 3CR

Prerequisite: HAR 5004 or HAR 7576 and permission of division director. 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. Class meets six hours a week.

HAR 6880 STUDIO WORKSHOP II. 3CR

Prerequisites: HAR 6879 and permission of the division director. In this continuation of HAR 6879, emphasis will be on individual studio activity in painting and drawing. Course content to be determined by the student under the supervision of a faculty member. Class meets six hours a week.

HAR 3564 INTRODUCTION TO PRINTMAKING 3CR

Prerequisites: HAR 2880 and either HAR 7576 or HCA 6862. Introduction to a variety of traditional and contemporary printmaking processes including relief, intaglio, lithography and mixed media. Emphasis is on exploring new forms of image generation. Class meets six hours a week.



HAR 4028 SILKSCREEN 3CR

Prerequisites: HAR 2880 and either HAR 7576 or HCA 6862. An exploration of silkscreen techniques including paper stencil, hand-cut film and photo stencil processes. Emphasis is on relating process to image generation. Class meets six hours a week.

HAR 7666 RAKU CERAMICS. 3CR

Raku Ceramics deals with the oriental process of making and firing Raku pottery—a spontaneous low-fire approach to a finished product involving the rapid firing and cooling of the pottery. Hand formed (pinched and slab) as well as wheel thrown forms will be researched. Emphasis is on non-wheel manipulation of form. Class meet six hours a week.

HAR 6193 CERAMICS I. 3CR

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.

HAR 2211 CERAMICS II. 3CR

Prerequisite: HAR 6193. Course deals with more advanced methods of research with studio experiences in pottery wheel techniques and glaze research. Class meets six hours a week.

HAR 5177 CERAMICS WORKSHOP I. 3CR

Prerequisites: HAR 6193 and HAR 2211 and by permission of division director. This course is for the student who wishes to pursue advanced individual projects under the direction of an instructor. Emphasis is on individual skill building in areas not covered in regular ceramic classes. Class/lab meets six hours a week.

HAR 3495 METAL AND SILVERSMITHING I 3CR

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.

HAR 3496 METAL AND SILVERSMITHING II 3CR

Prerequisite: HAR 3495. Advanced metalsmithing techniques of casting, constructing and etching, utilizing copper, brass, bronze, silver and other metals. Class meets six hours a week.

HAR 2089 SCULPTURE I. 3CR

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.

HAR 3094 SCULPTURE II. 3CR

Prerequisite: HAR 2089. Continuation of HAR 2089. Focus on advanced methods and techniques. Emphasis on sculptural materials and forms. Class meets six hours a week.

HAR 1866 SMALL LOOM TECHNIQUES. . . . 3CR

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.

HAR 7234 FIBER DESIGN I. 3CR

In this introductory fiber course, projects range from two-harness weaver controlled techniques to more complex procedures involving the use of four-harness floor looms. Three-dimensional woven forms and other fiber techniques will be explored. Class meets six hours a week.

HAR 7235 FIBER DESIGN II. 3CR

Prerequisite: HAR 7234. Advanced problems in structural weaving. Multi-harness, draft analysis, comprehensive research. Notebook required. Class meets six hours a week.

AUTOMOTIVE TECHNOLOGY

TAU 5606 AUTOMOTIVE TRANSMISSIONS AND DRIVELINES 4CR

Corequisites: MTH 5722, EGR 7094. In this course the focus is on the theory of the transfer of power from the engine flywheel to the drivewheels. The student will be exposed to the skills necessary to accurately perform troubleshooting procedures for transmission, driveline and different components. Three hours lecture, three hours lab. Fall.

TAU 5604 AUTOMOTIVE BASIC ELECTRICITY 3CR

Prerequisite: MTH 5722. This course focuses on the fundamentals of series and parallel circuits, magnetism, inductance, capacitance and semi-conductors in relation to direct current. The student will properly connect meters and make correct analysis of circuit problems. Two hours lecture, three hours lab. Spring.



TAU 5607 AUTOMOTIVE ENGINES I. 3CR

Prerequisites: MTH 5722, EGR 7094. The student will have the opportunity to learn about the theory of the 4-stroke cycle internal combustion gasoline and diesel engine; the skills for computing compression ratio, piston displacement, horsepower and torque; how to analyze and correct internal engine malfunctions. Two hours lecture, three hours lab. Spring.

TAU 5605 AUTOMOTIVE SUSPENSION, STEERING AND BRAKES 3CR

Prerequisites: MTH 5722, EGR 7094. This course stresses the theory of steering geometry, suspension design and brake fundamentals, front and rear suspension problems and the steps in proper sequence for diagnosing brake and steering systems. Two hours lecture, three hours lab. Spring.

TAU 5609 AUTOMOTIVE FUELS AND CARBURETION 3CR

Prerequisites: EGR 7094, TAU 5604 and TAU 5607. Topics include the function, operation and construction of carburetors, fuel pumps, injection pumps and injectors in diesel and gasoline engines. Also discussed will be the maintenance of components. Class/lab meets five hours per week. Fall.

TAU 5611 AUTOMOTIVE HEATING, AIR CONDITIONING AND EMISSIONS 4CR

Prerequisites: TAU 5604, EGR 7094, TAU 5607. Topics include the function, construction and operation of automotive heating, air conditioning and emission systems. There will be discussion of the safety procedures needed when working on these systems. Troubleshooting for all systems will be stressed. Class/lab meets six hours a week. Fall.

TAU 5612 AUTOMOTIVE DIAGNOSIS AND EVALUATION 4CR

Prerequisites: All first, second and third semester auto courses. Skills necessary for entry-level employment are stressed in this course. Students will be asked to perform tasks related to all phases studied in the first three semesters. Evaluation is based on industry standards. Class/lab meets eight hours a week. Spring.

TAU 5614 AUTOMOTIVE DEALERSHIP OPERATION 3CR

Prerequisite: MTH 5722. This course focuses on a familiarity with the management of an auto dealership. This course covers building design and physical requirements for covered and uncovered areas. Topics include finances and manpower required, local and state regulations, insurance and factory organization. Class meets three hours a week. Spring.

TAU 5608 AUTOMOTIVE ELECTRICAL SYSTEMS 3CR

Prerequisites: EGR 7094, TAU 5604, TAU 5607. The function, construction and operation of the starting, ignition and charging systems will be covered in this course. The instructor also will explain how to rebuild electrical components and properly test and diagnose all vehicle electrical systems. Two hours lecture and three hours lab each week. Fall.

BIOMEDICAL EQUIPMENT TECHNOLOGY

EMT 7975 BIOMEDICAL EQUIPMENT TECHNOLOGY I 4CR

Prerequisites: NLS 6186, EET 9826, EET 6036 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. Discussion of microshock and electrical safety testing. Class meets for three hours lecture and three hours lab each week. Fall.



EMT 9824 BIOMEDICAL EQUIPMENT TECHNOLOGY II 3CR

Prerequisite: EMT 7975. 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 lab each week. Spring.

EMT 4505 BIOMEDICAL INTERNSHIP 3CR

Corequisite: EMT 9824. 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 internship each week.

BUSINESS

BUS 4282 INTRODUCTION TO BUSINESS . . . 3CR

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.

BUS 2259 PERSONAL FINANCE I 3CR

Techniques of money management and the preparation of spending plans in order to fulfill financial goals. Planning consumer spending and allocations resulting in wealth maximization. An understanding of consumer sovereignty and how the consumer functions in the private enterprise system. Use of consumer credit and computing costs of credit; understanding credit instruments; applying compound interest tables in projecting financial goals; understanding how interest is computed on savings accounts; procedures and costs in buying and selling owner-occupied real estate; insurance – life, automobile, property, medical and disability; consumer protection techniques. Class meets three hours a week.

BUS 2848 PERSONAL FINANCE II 3CR

This course concentrates on financial planning procedures and explains how to establish financial objectives and identify various types of investments. Topics include how the tax system works in regard to short-term and long-term investments; the holding of owner-occupied and non-owner occupied real estate; the function of security markets and various types of security investments; life insurance planning; retirement planning strategies; and the overall development of portfolio investments based on investment objectives. Class meets three hours a week.

BUS 6038 SAVINGS AND INVESTMENTS . . . 3CR

Investment techniques and procedures to give a broad overview of savings and investment media and tools for financial planning. Basic investment principles; risk and return; developing individual or family investment objectives; compound interest; capital gains and their taxation; savings accounts; time deposits; government securities; money market instruments and funds; pension planning including tax-sheltered programs; financial analysis in making stock, bond and other security investments; real estate investments which are non-owner occupied; and estate planning relating to legal requirements and tax planning. Class meets three hours a week.

BUS 3566 PERSONAL LAW 3CR

Provides a knowledge of law from a personal standpoint. The course is designed to allow the student to become better informed of personal rights and duties in social and business life through a survey of the fundamental laws. Emphasis is on how law facilitates making life orderly, efficient and reasonably just in our highly interdependent society. Class meets three hours a week.

BUS 1121 BUSINESS LAW I 3CR

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.

BUS 5134 BUSINESS LAW II 3CR

Prerequisite: BUS 1121. Continuation of Business Law I. Includes agency and partnership, personal property, real property, secured transactions, insurance, corporations and international business. Case studies are used. Class meets three hours a week.

BUS 4512 BASIC ECONOMICS 3CR

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 introduction to the subject. Topics to be selected according to the interests of the class. Class meets three hours a week.

BUS 2253 ECONOMICS I. 3CR

Fundamental problems of contemporary approaches to economics. 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.

BUS 3093 ECONOMICS II. 3CR

Prerequisite: BUS 2253. Continuation of *Economics I* with emphasis on supply and demand, theory of the firm and market structures. Class meets three hours a week.

BUS 2970 PRINCIPLES OF REAL ESTATE I. . 2CR

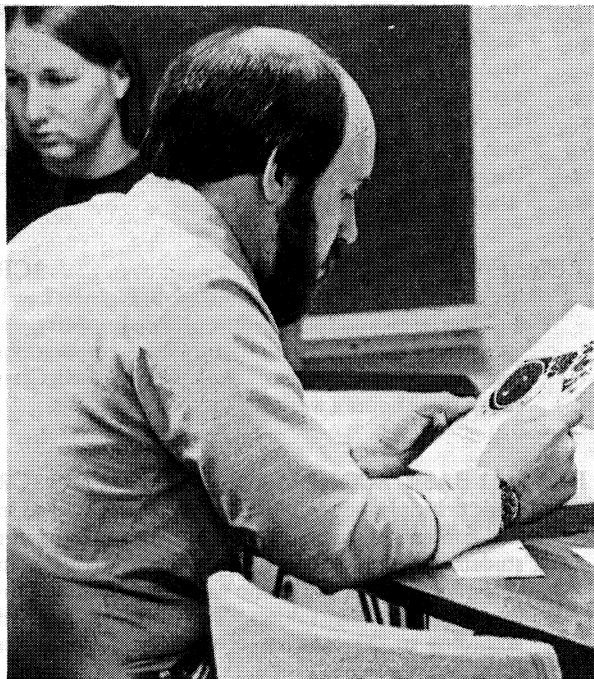
A course in the fundamentals, principles and procedures followed in the ownership or transferring of real estate along with the rights and interests held. Topics include what real estate represents; the economic characteristics of real estate resources; property rights and ownership interests; contracts in real estate transactions; deed and conveyance instruments; mortgages; title and legal descriptions; basic financial concepts regarding capitalization and present value; and sources of real estate credit. Class meets two hours a week.

BUS 5360 PRINCIPLES OF SUPERVISION. . 3CR

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.

BUS 7007 MARKETING. 3CR

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.



BUS 2341 PERSONNEL MANAGEMENT. . . . 3CR

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.

BUS 7822 PRINCIPLES OF MANAGEMENT. 3CR

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 meet three hours a week.

BUS 3461 MANAGEMENT SEMINAR I. . . . 3CR

Prerequisite: BUS 7822. This management seminar is designed to provide students with advanced management training. The emphasis is on management decision-making using both computerized and non-computerized management simulations. Class meets for three lecture hours a week.

BUS 1007 BUSINESS COMMUNICATIONS. . 3CR

Prerequisite: CEN 7612. This course encompasses four basic areas: reading skills, listening skills, verbal and non-verbal communications and written communications including memos, letters and reports. Class meets three hours a week.

BUS 2971 PRINCIPLES OF REAL ESTATE II. 2CR

Prerequisite: BUS 2970. Course includes the fundamentals of brokerage; title conveyance procedures, including title insurance and abstracts; title closing; valuation of real estate; property insurance; real estate investment analysis; property management; and techniques and tools of land-use controls. Class meets two hours a week.

BUS 2974 REAL ESTATE FINANCE. 2CR

Coverage of the most commonly used methods of financing real property, and institutions involved. Emphasis on the familiarity with financing terminology and providing a familiarity with the economic effects of money and interest rates along with the role of the secondary markets. Class meets two hours a week.

BUS 1390 GENERAL INSURANCE. 3CR

Covers basic terminology, principles of insurance, risk and risk management and insurance contracts. Reviews all lines of insurance, including life, health and disability, property and liability. Also analyzes the inroads of social insurance and its impact on the insurance industry. The course program has been coordinated with the Insurance Institute of America. Class meets three hours a week.

BUS 1446 PRINCIPLES OF INSURANCE. . . 3CR

Prerequisites: BUS 4282 and BUS 2259. This course is for students seeking a basic understanding of the principles of insurance. It will cover the basic terminologies of insurance and review the major categories such as life, health, property and liability. The course program has been coordinated with the Insurance Institute of America. Class meets three hours a week.

BUS 4029 MANAGEMENT ATTITUDES AND MOTIVATION 3CR
 Class discussion, group projects and role-playing situations are designed to let the student experience awareness of self; examine own attitudes; improve communication skills, management skills and problem solving skills; and learn to motivate self and others. Emphasis is on techniques for self improvement; conflict resolution; and respect for individual differences. Class meets for 48 lecture hours.

BUS 4243 INTRODUCTION TO INTERNATIONAL BUSINESS 3CR
 This introduction to international business covers accounting, finance, management and marketing in the international scene. It also explores factors common to the domestic scene including the business, political and monetary systems; social customs; language; and special problems in dealing with personnel in cross-cultural situations. Class meets three lecture hours each week.

BUS 5361 BUSINESS IN JAPAN 3CR
 A travel-for-credit course which combines pre-departure seminars on the JCCC campus with actual visits to Japanese factories and other business-related agencies. Representatives of Japanese businesses will host the on-site visits. Anyone interested in Japanese business as it relates to international trade or to productivity improvement or in knowing more about the everyday life and work of the Japanese people will find this course useful. Fifty-two lecture hours.

BUS 4127 TRANSPORTATION RATES I 3CR
 Introductory course for motor carrier transportation. The emphasis of the course will be on motor carrier tariffs and rates. Students will combine knowledge and application of tariff rates as they apply to classified shipments. Class meets three hours a week.

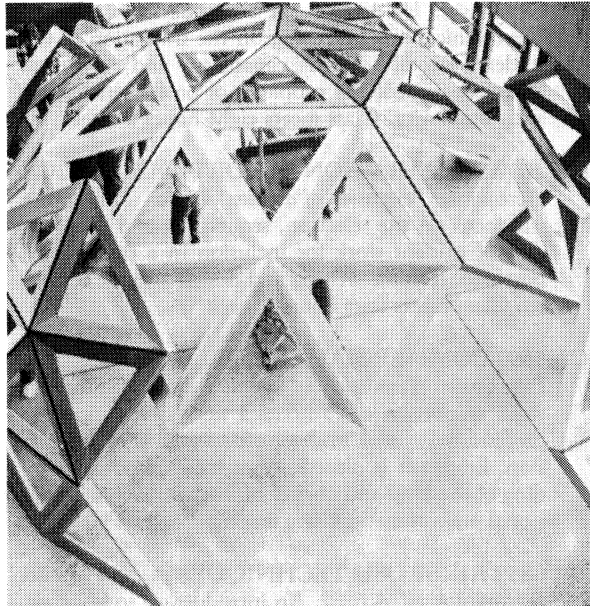
BUS 4128 TRANSPORTATION RATES II 3CR
 Course will reinforce the material studied in *Transportation Rates I* and will introduce the student to Middlewest Freight Bureau Tariff 125 and MWB 226 (commodities). Class meets three hours a week.

BUS 4129 TRANSPORTATION RATES III 3CR
 Course will cover the Middlewest Motor Freight Bureau Tariff 129 (rule for discounts and allowances), MWB 600 local distribution Rocky Mountain Motor 303 (class and commodity rates). Materials for *Transportation Rates I and II* will be used to apply to advanced rate determination. Class meets three hours a week.

COMMERCIAL ART

HCA 6862 BASIC REPRESENTATION I 3CR
 An introduction to basic pictorial representation as it is applied in commercial art. Emphasis is placed on the accurate rendering of objects and on the development of visual communications skills. Class meets six hours a week.

HCA 5863 BASIC REPRESENTATION II 3CR
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.



HCA 7205 LETTERING 3CR
 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.

HCA 4679 VISUAL TECHNOLOGY I 4CR
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.

HCA 6688 VISUAL TECHNOLOGY II 4CR
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.

HCA 1861 LAYOUT 3CR
Prerequisites: HAR 2880 and HCA 7205. Introduction to advertising layout. Information and techniques necessary for the effective composition of verbal and visual messages designed for publication. Class meets six hours a week.

HCA 1689 VISUAL COMMUNICATIONS I . . . 4CR

Prerequisite: Permission of the division director. An exploration of the scope and potential of graphic design as a vehicle for communication in contemporary society. Major areas of work include identity systems and corporate-image building through the following visual forms: photographics, hand graphics and typographics. Class meets eight hours a week.

HCA 9689 VISUAL COMMUNICATIONS II . . . 4CR

Prerequisite: HCA 1689. A continuation of Visual Communications I focusing on the utilization of the student's total design capability and technical knowledge in solving problems of professional scope and complexity. Class meets eight hours a week.

HCA 7690 PREPARATION OF PORTFOLIO . . . 2CR

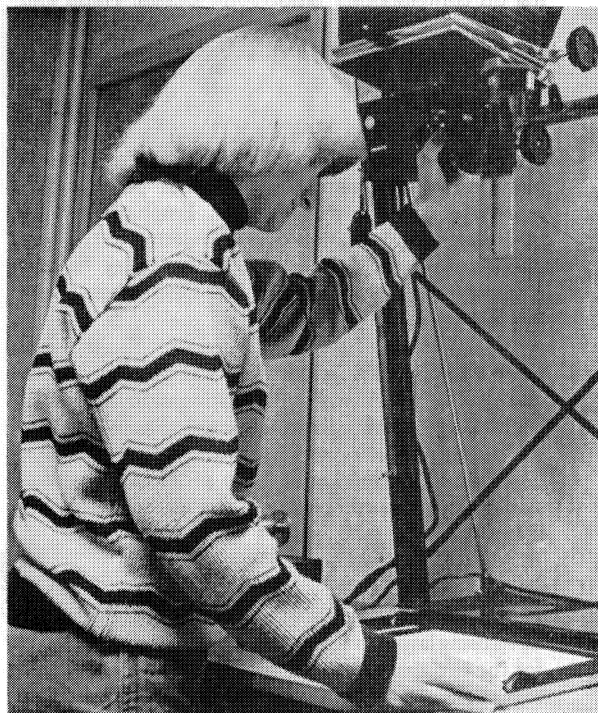
Prerequisite: Permission of division director. This course will focus on the selection, sequencing and presentation of student work for inclusion in a professional portfolio. Resumé writing and design also are included. Class meets four hours a week.

HCA 5691 COMMERCIAL ART FIELD STUDY 3CR

Prerequisite: Permission of division director. 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.

HCA 8853 AIRBRUSH TECHNIQUES 3CR

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.



CONSTRUCTION AND MAINTENANCE TECHNOLOGY

TCM 9143 CONSTRUCTION INSPECTION AND SAFETY 3CR

Prerequisite: TCM 9120. Topics covered in this class include procedures for making safety inspections, load calculations for temporary working environments and how OSHA applies to the construction industry. Class meets for three hours lecture each week. Spring.

TCM 9122 INTRODUCTION TO ELECTRICITY 3CR

In this thorough introduction to the electrical field, students will be exposed to the theory as applied to the technologies; DC. circuits; A.C. installations; bench projects typical of simple and complex circuits; basic knowledge of generators and motors. Students will be required to assemble circuits with emphasis on safety, troubleshooting, diagnosis and installation methods. Basic code regulations will be reviewed as they apply to each individual application. Class meets for two hours lecture and three hours lab each week. Fall.

TCM 9134 CONCRETE AND MASONRY 3CR

This course is designed to enable the student to explain the history, manufacture, characteristics and types of Portland cement; properly design a concrete mix; hand mix, machine mix and place concrete; properly design a mortar mix; hand mix and machine mix mortar; and lay masonry units. Two hours lecture, three hours lab each week. Spring.

TCM 9135 ENVIRONMENTAL SYSTEMS 3CR

This course will emphasize how to identify and properly use the basic plumbing tools; perform maintenance procedures on and install typical plumbing fixtures; identify and properly use the basic electrician's tools; demonstrate a knowledge of wiring materials and methods; make electrical connections and install circuits. Two hours lecture, three hours lab. Fall.

TCM 9127 MILLWORK AND FINISH 3CR

In this course emphasis will be on how to identify and properly use basic hand tools, portable power tools and stationary power tools associated with the building trades; build, hang and trim a door unit; properly trim a window; install baseboard with a coped and miter joint; machine and fit cabinet joints, doors and hardware; recognize quality millwork and finish. Two hours lecture, three hours lab. Spring.

TCM 9136 MATERIALS AND PROPERTIES . . . 3CR

The focus of this course will be how to perform basic ASTM Standard Quality Control Tests on concrete and to demonstrate a basic knowledge of the physical properties of concrete. Two hours lecture, three hours lab. Spring.

TCM 9126 CONCRETE CONSTRUCTION3CR

This course focuses on fundamental facts about cement and concrete (precast and poured in place) and methods of mixing, placing, finishing and curing quality concrete. Six hours lecture/lab each week. Fall.

TCM 9137 CONSTRUCTION MANAGEMENT 3CR

Prerequisite: MTH 5722. In this study of personnel management, topics will include personnel selection; preparation of progress schedule; contracts; daily project reports; weekly cost reports; monthly progress meetings; estimates for payments; letters; documentations; damages; and job close out. Three hours lecture each week. Spring.

TCM 9120 BUILDING CONSTRUCTION I3CR

Prerequisite: MTH 5722. This course will involve actual field experience in building construction, including layout of all framing members in residential construction and roofing and exterior trim. Students will assemble these components and materials in a lab session or on a school project. Lecture lessons on theory will relate to the field experience. One hour lecture, six hours lab each week. Fall.

TCM 9131 BUILDING CONSTRUCTION II . . .3CR

Prerequisites: TCM 9127 and TCM 9120. This continuation of *Building Construction I* will involve the finish aspect of construction. Students will install and finish drywall, install and finish interior trim and construct and finish cabinets. The installation of wall and floor coverings and painting also will be included. Work will be performed in a lab setting or on a school project. Lectures on theory will relate to this field experience. One hour lecture, six hours lab each week. Spring.

TCM 9144 CONSTRUCTION AND MAINTENANCE COOPERATIVE EDUCATION2-9CR

Prerequisites: TCM 9134 or TCM 9120 or permission of division director. Advanced construction students can gain on-the-job work experience under the supervision of professionals in the industry in this course. The student will work cooperatively with area employers and college staff to create job experiences related to the student's personal career goals. One hour lecture and 6-27 hours on-the-job training each week. This course may be repeated for a total of nine credit hours.

DATA PROCESSING

BDP 7135 BUSINESS DATA PROCESSING3CR

This nontechnical course will include consideration of social and economic implications of computers in government and business. Students operate the key-punch and time-sharing terminal in learning to write and run simple computer programs. Class meets three hours a week.

BDP 6699 PROGRAMMING FUNDAMENTALS4CR

This technical course is designed to prepare an individual for enrollment in any programming language

course. Key-punch and advanced terminal usage are covered. 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.



BDP 5105 EDITOR1CR

Prerequisite: BDP 6699. In this introductory course, students will learn to use an EDITOR to create and manipulate files on a computer. The class will cover instruction on how characters, strings of characters or entire lines of characters can be inserted, deleted, replaced, modified, searched for and otherwise manipulated by using the EDITOR. Class meets three hours a week for three weeks.

BDP 4049 FUNDAMENTALS OF BASIC3CR

This technical course gives individuals an understanding of the BASIC programming language. 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.

BDP 4700 COBOL I4CR

Prerequisite: BDP 6699 and BDP 5105. BDP 5105 may also be taken as a corequisite. 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.

BDP 1702 COBOL II4CR

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.

BDP 1698 ASSEMBLER LANGUAGE I. 4CR

Prerequisite: BDP 6699 and BDP 5105. BDP 5105 may also be taken as a corequisite. It is recommended that this class be taken after COBOL I. 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.

BDP 1684 ASSEMBLER LANGUAGE II 4CR

Prerequisite: BDP 1698. Advanced features of Assembler language for IBM 370. Covers Macros, sub-programs, table handling, the complete set of ALC instructions and the different methods of file access. Class meets three hours a week. Laboratory by arrangement.

BDP 6703 FORTRAN 4CR

Prerequisite: MTH 3001 and BDP 5105. BDP 5105 may also be taken as a corequisite. 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.

BDP 6005 OS/VIS JOB CONTROL LANGUAGE 3CR

Prerequisite: BDP 4700 or BDP 1698 or equivalent work experience. Use of OS/VIS JCL with typical applications. Emphasis on Rules of Coding JCL, optimizing resources, overriding statements, use of symbolic parameters. Computer applications of JCL. Class meets three hours a week.



BDP 4023 PASCAL 4CR

Prerequisite: BDP 4700 or BDP 1698 or BDP 6703. BDP 5105. BDP 5105 may also be taken as a corequisite. 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. Class meets three hours a week. Laboratory by arrangement.

BDP 7683 RPG II BEGINNING 4CR

Prerequisite: BDP 6699 and BDP 5105. BDP 5105 may also be taken as a corequisite. Use of various approaches to RPG II problem solving. Define, code, test, debug and document RPG II programs. Control levels and subroutines are covered. Computer used in compiling and executing programs. Class meets three hours a week. Laboratory by arrangement.

BDP 5832 RPG II ADVANCED. 4CR

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.

BDP 7224 TELEPROCESSING 3CR

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

BDP 1036 DATA FILE MANAGEMENT 3CR

Prerequisites: BDP 1698, BDP 4700, BDP 7683, BDP 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.

BDP 4551 INTRODUCTION TO SYSTEM DESIGN AND ANALYSIS 3CR

Prerequisites: BDP 4700, BDP 6703, BDP 1698 or BDP 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.

BDP 6451 OPERATING SYSTEMS 3CR

Prerequisite: BDP 1698 or BDP 4700 or equivalent work experience. Basic concepts and principles of a digital computer operating system. Interrelationships between hardware and software and how they are controlled are illustrated through study of a typical digital computer system. Class meets three hours a week.

BDP 3868 APPLICATION PROGRAMMING: APPLICATIONS 2-3CR

Prerequisite: Permission of division director. Corequisite: BDP 4700, BDP 6703, BDP 7683 or BDP 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.

BDP 3869 APPLICATION PROGRAMMING: DATA PROCESSING TOPICS 2-3CR

Prerequisite: Permission of division director. Corequisite: BDP 4700, BDP 6703, BDP 7683 or BDP 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.

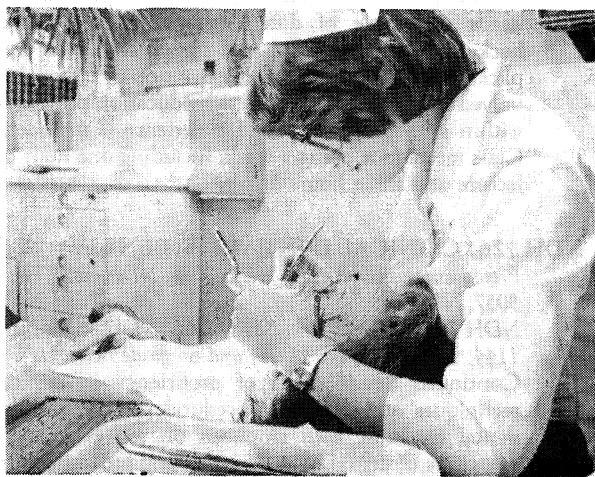
DENTAL ASSISTING

NDA 2041 FUNDAMENTALS OF DENTISTRY I5CR

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. Histology, embryology, dental materials and the manipulation of the dental materials in a laboratory procedure. Class meets seven hours a week.

NDA 1044 FUNDAMENTALS OF DENTISTRY II4CR

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.



NDA 2855 FUNDAMENTALS OF DENTISTRY III4CR

Prerequisites: NDA 1044 and NDA 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 hours a week.

NDA 5048 FUNDAMENTALS OF DENTISTRY IV3CR

Prerequisite: NDA 2855. 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.

NDA 1052 PRECLINICAL PRACTICE4CR

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.

NDA 1047 CLINICAL PRACTICE I3CR

Prerequisite: NDA 1044 and NDA 1052. The student will have the opportunity to 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.

NDA 6050 CLINICAL PRACTICE II5CR

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

DENTAL HYGIENE

NDH 7252 CLINICAL DENTAL HYGIENE I . . .6CR

Prerequisite: Admission to Dental Hygiene Program. *Corequisites:* NLS 5057, 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.

NDH 7253 DEVELOPMENTAL DENTISTRY . . .3CR

Corequisites: NLS 5057, 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.

NDH 7254 CLINICAL DENTAL HYGIENE II . . .5CR

Prerequisites: NDH 7252, NDH 7253, NLS 5057, NPS 6634, and 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.

NDH 7255 PERIODONTICS1CR

Prerequisites: NDH 7252, NDH 7253, NLS 5057, NPS 6634 and 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.



NDH 7256 DENTAL HEALTH EDUCATION 1CR

Prerequisite: NDH 7252, NDH 7253, NLS 5057, NPS 6634 and 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.

NDH 7257 CLINICAL DENTAL HYGIENE III 7CR

Prerequisites: NDH 7256, NDH 7252, NDH 7254, NLS 5057, NDH 6266, NDH 7253, NDH 7255, NLS 1144, NLS 6152, NPS 6634 and no grade below a "C." *Corequisites:* NDH 7258, NDH 7259, NDH 7260, NDH 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 sixteen hours of clinic.

NDH 7258 PATHOLOGY AND

PERIODONTOLOGY3CR

Prerequisites: NDH 7252, NDH 7254, NLS 5057, NDH 6266, NDH 7253, NDH 7256, NDH 7255, NLS 1144, NLS 6152, NPS 6634 and no grade below a "C." *Corequisite:* NDH 7257, NDH 7259, NDH 7260, NDH 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.

NDH 7259 DENTAL THERAPEUTICS3CR

Prerequisites: NDH 7256, NDH 7252, NDH 7254, NLS 5057, NDH 6266, NDH 7253, NDH 7255, NLS 1144,

NLS 6152, NPS 6634 and no grade below a "C." *Corequisites:* NDH 7258, NDH 7257, NDH 7260, NDH 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).

NDH 7260 COMMUNITY DENTAL HEALTH 2CR

Prerequisites: NDH 7252, NDH 7254, NLS 5057, NDH 6266, NDH 7253, NDH 7256, NDH 7255, NLS 1144, NLS 6152, NPS 6634 and no grade below a "C." *Corequisites:* NDH 7257, NDH 7258, NDH 7259, NDH 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.

NDH 7261 CLINICAL DENTAL HYGIENE IV 7CR

Prerequisites: NDH 7252, NDH 7254, NDH 7257, NLS 5057, NDH 7253, NDH 7256, NDH 7260, NDH 7255, NDH 7258, NDH 7259, NDH 6266, NDH 5250, NLS 1144, NLS 6152, NPS 6634 and no grade 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.

NDH 5250 DENTAL MATERIALS2CR

Prerequisites: NDH 7252, NDH 7254, NLS 5057, NDH 6266, NDH 7253, NDH 7256, NDH 7255, NLS 1144, NLS 6152, NPS 6634 and no grade below "C." *Corequisites:* NDH 7257, NDH 7258, NDH 7259, NDH 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.

NDH 6266 DENTAL RADIOLOGY2CR

Prerequisites: NDH 7252, NLS 5057, 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.

DRAFTING TECHNOLOGY

EDT 7407 TOOL DESIGN 3CR

Prerequisite: EGR 1243. Problems in the design, construction and operation of dies, jigs and fixtures. Six hours of laboratory a week.

EDT 7674 GRAPHIC COMMUNICATIONS .. 1-7CR

This course is open to students experienced or inexperienced in drafting. Students may use this course for exploration or to determine aptitudes in the field of drafting. Credits earned are applicable to the drafting technology program. Fall.

EDT 5810 TECHNICAL DRAFTING I 5CR

Industrially structured toward preparing students for industry. Emphasis on basic drafting components and standards, both ANSI and ISO: geometric construction, visualization, first and third angle orthographic projection, US and metric measure, sections, details, auxiliary views, descriptive geometry and introduction to computer operations. Class/lab meets ten hours each week. Fall.

EDT 4072 ARCHITECTURAL/STRUCTURAL DRAFTING 4CR

Prerequisite: EDT 5810 or EDT 7674 or permission of division director. Students will study applications of commercial architectural structures and become familiar with residential construction. Emphasis is on structural components, terminologies, fabrication and erection drawings. Class/lab meets eight hours each week. Fall.

EDT 2811 TECHNICAL DRAFTING II 5CR

Prerequisite: EDT 5810 or permission of division director. A continuation of EDT 5810, *Tech Drafting I*, this course emphasizes developments, fasteners, geometric form and true position tolerancing. Numerical control (NC), computer aided drafting (CAD) and computer aided manufacturing are included. Class/lab meets ten hours a week. Spring.



EDT 4012 INTERPRETING MACHINE

DRAWINGS 2CR

A basic course designed to provide a practical knowledge in reading machine drawings from actual production drawings. Involves the fundamentals of orthographic projection, dimensioning, geometric form tolerancing, standard symbols and sections as they apply to machine drawings, both ANSI and ISO conventions studied. Two hours each week. Spring, biannually.

EDT 4011 INTERPRETING ARCHITECTURAL

DRAWINGS 2CR

A beginning course providing fundamentals in the interpretation of architectural type drawings (blueprints). Involves theory of engineering drawings, dimensioning, sectioning and details. Actual construction plans are used in the areas of residential, commercial and industrial. Class meets two hours a week. Fall.

EDT 4010 REPROGRAPHICS II 2CR

Prerequisite: EDT 1813. Advanced applications of photo reproduction used for documentation; halftones, screening and product photography; use of 35mm, view, industrial and process cameras. Class/lab meets four hours a week. Spring, biannually.

EDT 2297 TECHNICAL ILLUSTRATION 3CR

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 photoreproduction processes. Class/lab meets six hours a week. Fall, biannually.

EDT 1813 REPROGRAPHICS I 2CR

Corequisite: EDT 5810. Reproduction processes and techniques typically used by industry. Diazo-white printing, sepia intermediates, wash-off film. Practical applications of photodrafting, microfilming, overlays, scissors drafting and metal plate-making. Class/lab meets four hours a week. Fall.

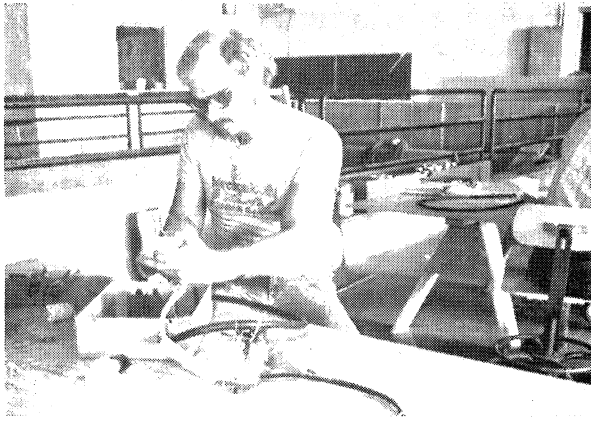
EDT 7812 PICTORIAL DRAFTING 2CR

Prerequisite: EDT 5810 or permission of division director. 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.

EDT 4015 CARTOGRAPHY AND LAND

SURVEYING 3CR

Prerequisites: MTH 2942 or MTH 2594 and EDT 5810 or permission of division director. 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, operations and care of equipment, record keeping, field problems and computer applications. Class meets six hours a week. Spring.



EDT 6016 INTERPRETATION OF WELDING DRAWINGS 2CR
 An introductory course in the interpretation of welding drawings (blueprints) with emphasis on view visualization, sectioning, dimensioning, abbreviations and symbols. ANSI and AWS standards are followed. Sketching and use of actual industrial prints provided. Class meets two hours a week. Spring, biannually.

EDT 1229 BUILDING CONSTRUCTION ESTIMATING 3CR
 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.

EDT 4014 PROCESS PIPING 3CR
Prerequisites: EDT 5810 and 7812 or permission of division director. Familiarization with applications of symbols, terminology, specifications, piping fittings and valving relating to process pipe drawings. Experiences provided to both erection and fabrication drawings from flow diagrams with computer assisted exercises and modeling offered. Class/lab meets six hours each week. Fall.

EDT 5924 ELECTRICAL DRAFTING 3CR
Prerequisites: EDT 5810 or 7674 or permission of division director. Drafting applications are made in this discipline to lighting, motor controls, power distribution and generation. Emphasis is on use of tables, catalogs and computer applications as aids. Decision-making required on electric drawings. Class/lab meets six hours each week. Spring.

EDT 6460 DRAFTING COOPERATIVE EDUCATION 2-9CR
Prerequisites: 14 credit hours in drafting or permission of division director. Students can gain on-the-job work experience under the supervision of professionals in the industry in this course. The student will work cooperatively with area employers and college staff to create job experiences related to the student's personal career goals. This course may be repeated for a total of 9 credit hours, 1 hour of lecture and 6-27 hours of on-the-job training each week.

ELECTRONICS TECHNOLOGY

EET 5290 INTRODUCTORY ELECTRONICS . 3CR
 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. Fall.

EET 3409 CIRCUIT ANALYSIS I. 3CR
Prerequisites: EET 5290 and MTH 9000 or concurrent enrollment. Fundamental AC and DC circuit concepts such as Kirchoff's Laws, Ohm's Law, Thevenin's Theorem, Norton's Theorem, Superposition Theorem and nodal analysis. Class meets three hours a week. Fall.

EET 6029 CIRCUIT ANALYSIS II. 3CR
Prerequisites: MTH 9001 or concurrent enrollment and EET 3409. Fundamental concepts of AC circuit analysis and transient circuit analysis as applied to circuits containing resistors, capacitors and inductors. Class meets three hours a week. Spring.

EET 5886 ELECTRONIC PRINCIPLES I. . . . 3CR
Prerequisites: EET 3409 and MTH 9000. The first course in a three-course sequence in analog electronics. A study of semiconductor theory, diodes, diode circuits, transistors and transistor biasing circuits. Two hours of class and three hours of laboratory a week. Spring.

EET 9826 ELECTRONIC PRINCIPLES II. . . . 3CR
Prerequisites: EET 5886 and 6029. The second course in a three-course sequence in analog electronics. A study of small signal transistor amplifiers; class A, B and C power amplifiers; field effect transistors; and FET circuitry. Two hours of class and three hours of laboratory a week. Fall.



EET 4464 ELECTRONIC PRINCIPLES III. . . . 3CR
Prerequisite: EET 9826. The third course in a three-course sequence in analog electronics. A study of integrated circuits, frequency effects in amplifiers, negative and positive feedback, oscillators, voltage regulation, OP-amp applications, differential amplifiers and frequency domain analysis. Two hours of class and three hours of laboratory a week. Spring.

EET 9086 DIGITAL ELECTRONICS I. 4CR

Prerequisite: EET 5290. First course in a three-semester sequence in digital electronics. A study of binary numbers and codes, binary arithmetic, logic circuits, arithmetic circuits, flip-flops and counters. Three hours of class and two hours of laboratory a week. Spring.



EET 6036 DIGITAL ELECTRONICS II. 4CR

Prerequisite: EET 9086. Second course in a three-semester sequence in digital electronics. A study of registers, counters, memories, computer architecture and computer instructions. Three hours of class and two hours of laboratory a week. Fall.

EET 2468 ELECTRONIC COMMUNICATION SYSTEMS 3CR

Prerequisite: EET 9826. 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.

EET 4503 MICROPROCESSORS 3CR

Prerequisite: EET 6036. 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. Spring.

EMERGENCY MEDICAL TECHNOLOGY

NET 4201 EMERGENCY MEDICAL TECHNICIAN 5CR

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 State Certification Examination.

NET 2142 BASIC CARDIOLOGY AND EKG RECOGNITION 2CR

Prerequisite: Permission of division director. Basic anatomy and physiology and electrophysiology of the cardiac system. Introduction to EKG monitoring designed to provide students with the ability to recognize normal and abnormal EKG tracings. Overview of coronary artery disease. Class meets two hours a week. Class limited to 30.

NET 2140 CPR I—BASIC RESCUER 1CR

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.

NET 2141 CPR II—BASIC CPR INSTRUCTOR . 1CR

Prerequisite: NET 2140 or 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.

NET 4204 EMICT I. 10CR

Prerequisite: Admission to EMICT program. This fundamental EMICT course covers roles and responsibilities, use of medical terminology and principles of anatomy and physiology as they apply to the EMICT. It also focuses on diagnostic signs and assessments of the medical emergency and the traumatized patient and the method, use and regulation of biomedical communications. Other topics to be discussed are venipuncture and medication administration techniques, advanced airway management, management of the cardiac patient, ECG interpretation and treatment of ECG abnormalities. Class meets for 18 hours of lecture and 6 hours of field experience each week.

NET 4205 EMICT II. 10CR

Prerequisite: NET 4204 with a minimum grade of C. This fundamental EMICT course covers diagnosis, etiology and field treatment for the adult and pediatric patient in a respiratory emergency and for the adult with a hypertensive, vascular, diabetic, OB, endocrine or environmental emergency. Also covered will be the diagnosis and management of the overdosed or poisoned patient and of the adult and pediatric trauma patient with chest, neurological and abdominal trauma, fracture or shock. Class meets for 18 hours of lecture and 6 hours of field experience each week.

NET 4206 EMICT III—CLINICALS 12CR

Prerequisite: NET 4205 with the minimum grade of C. The student will practice essential diagnostic and treatment skills during supervised experience in the emergency department, critical care unit, surgery/recovery room, labor/delivery and pediatrics room. Some field experience included in the course. Class meets for 36 hours of lab each week.

NET 4207 EMICT IV FIELD INTERNSHIP . . . 10CR
Prerequisite: NET 4206 with the minimum grade of C. The student will function under supervision as an EMICT with an existing advanced life-support ambulance service. The student also will present selected case histories, analyze systematic medical care and evaluate medical care using accepted pre-hospital protocols. Class meets for 40 hours of lab each week.



ENERGY TECHNOLOGY

TEN 6548 DIAGNOSIS AND SERVICE PROCEDURES 3CR

Prerequisites: TEN 6541 and TEN 6539. This course provides instruction in maintaining, installing and troubleshooting commercial and industrial application of refrigeration. Students will have the opportunity to troubleshoot and wire control circuits; diagnose malfunctions with testing equipment; and correct malfunctions in commercial and industrial refrigeration units. Two hours of lecture and three hours of lab each week.

TEN 6572 ENERGY MANAGEMENT 3CR

Prerequisites: TEN 6553 and TEN 6569 or permission of division director. This course covers the current level of sophistication of components and systems designed to monitor and curb usage of building utilities. Simple set-back principles as well as large computer managed control systems will be included. Utility rate structure and demand charges will be studied and compared to emerging technologies for conserving energy and balancing utility usage and thereby lowering utility costs. Topics include retrofitting for existing buildings. Class meets for two hours lecture and three hours lab each week.

TEN 6571 COMMERCIAL SYSTEMS: HEATING 4CR

Prerequisites: TEN 6569 and TEN 6553 or permission of division director. This course covers large plant heating systems such as hot water and low pressure steam boilers and associated combustion theory and control systems for safe management of gas and oil fired equipment. Other topics include electrical heating systems, efficiency testing and operating engineer licensing requirements. Class meets for three hours lab each week.

TEN 6553 ADVANCED CONTROL SYSTEM . . . 3CR
Prerequisites: TEN 6543, TEN 6544 and TEN 6541.

This class offers instruction in those systems used in commercial and industrial applications: electrical controls for motors, advanced electrical wiring diagrams, pneumatic controls and electronic controls. Other topics covered include installation, calibration and repair of such controls and the use of computers as control devices. Class meets for two hours lecture and three hours lab each week.

TEN 6546 RESIDENTIAL HVAC SYSTEMS . . . 3CR

Prerequisites: TEN 6541 and TEN 6539. A course providing instruction on techniques and procedures in maintaining, installing and trouble-shooting air conditioning and heating systems for efficient, constant volume induction; variable volume; multi-zone; and dual duct systems. Service problems, combustion testing, control analysis and energy cost comparisons will be integrated in this course. Two hours lecture, three hours lab each week.

TEN 6570 RESIDENTIAL HVAC ESTIMATING 2CR

This course covers the techniques and procedures utilized in industry to make interpretations from drawings and specifications and to determine labor costs for the installation of various air conditioning, refrigeration and heating systems. The student will make estimates from mechanical plans for specific structures. Two hours lecture each week.



TEN 6530 INSTRUMENTATION AND CONTROL DEVICES 3CR

Prerequisites: TEN 6541 and TEN 6539. This course provides a detailed study of various applicable and operational principles of automatic controls used in air conditioning, refrigeration and heating systems. This introduction to controls includes flow switches, thermostats, motor controls and float valves. Emphasis will be placed on commercial and residential facilities. Two hours lecture, three hours lab each week.

TEN 6541 BASIC PRINCIPLES OF HVAC 4CR

The class covers the function, design, construction features, operation, adjustment, inspection and repair of small scale residential heating and cooling systems, and various commercial refrigeration and air movement systems. Three hours lecture, three hours lab each week. Fall.

TEN 6568 DOMESTIC SOLAR SYSTEMS 3CR

Practical approaches to design of solar systems for production of heat and electricity and optimum system(s) for different types of residential structures. Different types of active solar components and methods will be studied along with a brief overview of hybrid systems which combine conventional and solar heating systems. Lab sessions include building actual working systems and models and testing for efficiency and energy output. Two hours lecture and three hours lab each week.

TEN 6563 APPLICATION OF SOLAR 3CR

This course covers various types of solar system applications. Topics include photovoltaic; solar heating and cooling; solar process heat; solar collectors and concentrators; and other solar energy conversions. Students will study residential, commercial, agricultural and industrial uses for solar energy; examine case studies of many existing solar and alternate energy systems; and explore the identification of effective solar applications. Three hours lecture each week.

**TEN 6569 COMMERCIAL SYSTEMS—
AIR CONDITIONING 4CR**

Prerequisites: TEN 6539, TEN 6541 and TEN 6530. A study of commercial and industrial application of refrigeration for efficiency and economic use. Areas of concentration include central station systems, water chillers, fan and air handling units, packaged systems and absorption systems. Laboratory exercises include basic repairs, installation and start-up procedures. Three hours lecture, three hours lab each week.

TEN 6539 ELECTROMECHANICAL SYSTEMS 3CR

Prerequisite: TEN 6541 or permission of division director. An introductory electrical course in the relationship of components and the various repair and troubleshooting techniques. The materials in this course will prove useful to service technicians whose background in electricity is limited. The course includes materials ranging from basic electrical theory to troubleshooting complex dual-compressor split systems. This course will provide practice in application of electrical theory as well as in the interconnection of components of air conditioning and refrigeration systems. Three hours lab, two hours lecture each week.

TEN 6547 ENERGY ALTERNATIVES 3CR

This course concentrates on the diverse methods of alternate energy production and emphasizes the most effective technologies available. Technologies discussed include wind energy, photoelectric energy, biomass and alternate fuel vehicles. Students will study the energy technologies, the impact and by-products of each and possible problems. Three hours of lecture each week.

TEN 6559 PASSIVE SOLAR FUNDAMENTALS 3CR

In this study of solar technologies, students will deal with architectural treatments of existing structures including greenhouses; solariums; sun spaces; trombe walls; direct and indirect solar gain; and other solar options. Also covered will be calculation of expected heat input of various passive solar additions. Students will be required to design a home using passive solar applications. Three hours lecture each week.

TEN 6560 SOLAR PROJECT 4CR

Prerequisites: TEN 6558 and/or TEN 6559. In this course on the design and construction of active and passive solar systems, students will work with professional equipment. The course will emphasize effective, practical solar designs and systems. Students will study in-field working active and passive solar applications; examine the solar system selection process; and weigh cost, design and materials in choosing the best system. Two hours lecture and six hours lab each week.

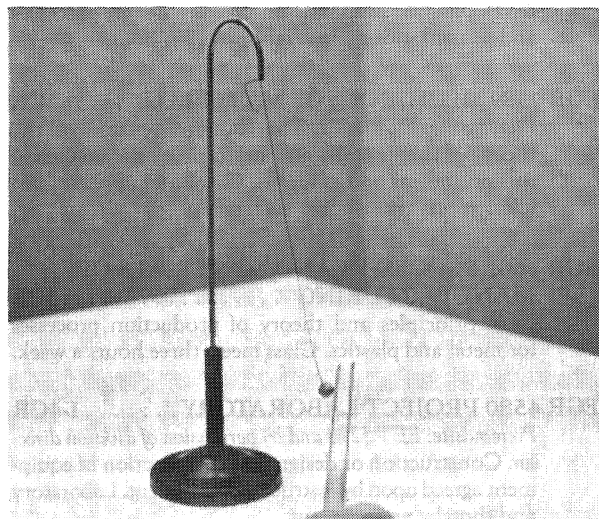
**TEN 6574 HVAC COOPERATIVE EDUCATION
. 2-9CR**

Prerequisites: Nine credit hours in energy courses at JCCC or permission of division director. Students can gain on-the-job work experience under the supervision of professionals in the industry in this course. The student will work cooperatively with area employers and college staff to create job experiences related to the student's personal career goals. One hour lecture and six to seven hours of on-the-job training each week. This course may be repeated for a total of nine credit hours.

ENGINEERING

EGR 7094 TECHNICAL PHYSICS I 3CR

Prerequisite: MTH 5722. A study of selected topics in physics including motion, forces, energy, mechanical advantage, heat, friction, fluids and properties of matter. Two hours of lecture and three hours of lab each week.



EGR 3169 ENGINEERING LAND SURVEYING I3CR
Prerequisite: MTH 2594 or MTH 7091 or concurrent with MTH 2594 or MTH 7091 or equivalent. Basic applications of plane surveying procedures and measurement of horizontal distances, directions, angles, leveling, traversing, curves, stadia coordinates and computations with aid of computers. Topographical property and construction surveying. Field operations using equipment such as Auto levels, theodolites, EDM. Class/lab meets six hours each week.

EGR 6082 STATICS3CR
Prerequisite: MTH 3268 or concurrent enrollment. Vectors, force systems, friction, centroids and moments of inertia. Computer applications class meets three hours each week.

EGR 9017 TECHNICAL PHYSICS II3CR
Prerequisite: EGR 7094. Continuation of Technical Physics I. Subjects include momentum, wave motion, sound, light, atomic structure, static electricity and magnetism. Two hours of lecture and three hours of lab each week.

EGR 1243 ENGINEERING GRAPHICS I3CR
 This course is about the principles of graphics and design processes. Topics include practical problems relating to interpretation of drawings; interrelation of points; lines and planes; intersections and developments; graphical solutions by charts and graphs; orthographic projection, computer-aided operations and computations. Emphasis is on visualization. Class/lab meets six hours each week.

EGR 5517 DYNAMICS3CR
Prerequisites: EGR 6082 and MTH 4313 or concurrent enrollment in MTH 4313. Unbalanced force systems and the resulting motion, work and energy, impulse, momentum and impact. Computer applications. Class meets three hours each week.

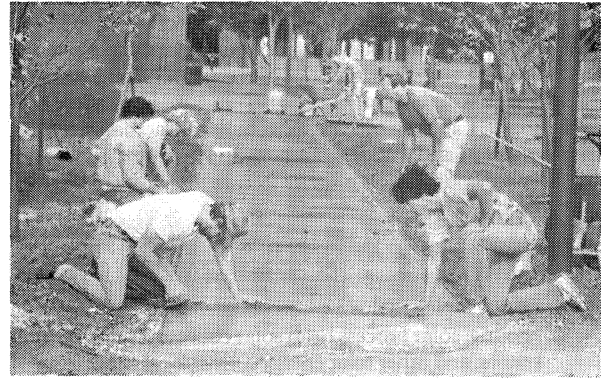
EGR 2276 ENGINEERING GRAPHICS II3CR
 Study and application of detail and assembly drawings, dimensioning, auxiliary views, sectioning and developments. Emphasis on creative design processes and visualization. Class/lab meets six hours a week.

EGR 7389 MECHANICS OF MATERIALS3CR
Prerequisite: EGR 6082. This class concentrates on the theory of simple stress and strains in elastic materials, torsion, beams and columns. Computer applications. Class meets three hours each week.

EGR 4661 PROCESSES AND MATERIALS OF MANUFACTURING3CR
 Basic principles and theory of production processes for metal and plastics. Class meets three hours a week.

EGR 4580 PROJECT LABORATORY1-4CR
Prerequisite: EET 5290 and by permission of division director. Construction or design and construction of equipment agreed upon by instructor and student. Laboratory and shop by arrangement.

EGR 7724 PROGRAMMING FOR ENGINEERING AND SCIENCE4CR
Prerequisite: MTH 3427 or equivalent and BDP 5105. Use of the FORTRAN programming language in developing programming techniques for solving scientific and engineering problems on digital computers. Emphasis is on the vocabulary and grammar of FORTRAN. Class meets three hours a week. Minimum of three hours of laboratory a week by arrangement.



EGR 7118 BUILDING MATERIALS AND CONSTRUCTION3CR
 Study of principal materials used in buildings. Emphasis on properties and applications in building construction. Use of construction specifications, building codes, trade association publications and other standards. Class meets three hours a week.

EGR 7651 ENGINEERING ORIENTATION1CR
 Introduction to several engineering disciplines, presentations and opportunities for discussions with professional engineers and representatives of engineering faculty of regional universities. Includes field trips, current transfer requirements and scholarship information. Class meets one hour a week.

EGR 6198 MECHANISMS3CR
Prerequisite: EGR 1243. This course studies the motion of machine parts and methods of transmission of motion by links, cams, gears and belts as well as computer applications. Class meets six hours each week.

ENGLISH

CEN 1241 ENGLISH AS A SECOND LANGUAGE I5CR
 This introduction to the English language is for students who are familiar with English but who have limited skills in speaking the language. The class focuses on pronunciation and listening comprehension. Class meets five hours each week. One half-hour lab a week also required.

CEN 2275 ENGLISH AS A SECOND LANGUAGE II4CR
Prerequisite: CEN 1360. A continuation of English as a Second Language I, this course includes continued work in pronunciation but emphasizes improving reading skills. Class meets four hours each week.

- CEN 2651 FUNDAMENTALS OF ENGLISH . . . 3CR**
Prerequisite: appropriate assessment score. This course focuses on grammar, usage and mechanics of standard edited English, emphasizing clear, efficient communication in varied sentence patterns. Class meets three hours a week.
- CEN 1000 INTRODUCTION TO WRITING . . . 3CR**
Prerequisite: CEN 2651 or appropriate placement test score. Beginning with a review of basic sentence skills, the course focuses on paragraph development, including subject selection, topic sentences, methods of development, transitional devices and conclusions. The last part of the course will focus on developing the multi-paragraph essay. Class meets three hours a week.
- CEN 7612 COMPOSITION I 3CR**
Prerequisite: CEN 1000 or appropriate placement test score. This standard freshman English I course focuses on invention, paragraph development and essay format. Guided practice in developing form and content of clear and interesting composition. Class meets three hours a week.
- CEN 5732 COMPOSITION II 3CR**
Prerequisite: CEN 7612. This standard freshman English II course emphasizes organization and development of expository essays written in response to assigned readings. Related research projects. Class meets three hours a week.
- CEN 5577 ADVANCED COMPOSITION 3CR**
Prerequisite: CEN 5732. Practice in effective writing for students who wish to continue their study beyond the two semesters of Composition 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.
- CEN 5578 TECHNICAL WRITING 3CR**
Prerequisite: CEN 7612. Emphasizes various methods of written communication relevant to manufacturing and engineering including short reports, letters and resumes. Class meets three hours a week.
- CEN 5579 CREATIVE WRITING 3CR**
Prerequisite: CEN 5732. 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.
- CEN 5580 CREATIVE WRITING WORKSHOP 3CR**
Prerequisite: CEN 5579. Advanced practice in writing the short story, novel, essay, article, play and 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.
- CEN 5581 POETRY AND DRAMA 3CR**
Prerequisite: CEN 5732. Introduction to poetry and drama for insight and appreciation. Selected plays and poetry of all types and styles will be read. Related writing assignments. Class meets three hours a week.
- CEN 3898 INTRODUCTION TO FICTION 3CR**
Prerequisite: CEN 5732. Introduction to fiction from different countries and eras, emphasizing fictional techniques and themes in selected novels and short stories. Students will read, discuss and write about the assigned fiction. Class meets three hours a week.
- CEN 5585 THE LITERATURE OF SCIENCE FICTION 3CR**
Prerequisite: CEN 5732. The various themes and myths of major science fiction writers are presented. Group presentations, simulations and guest speakers are included. Major science fiction movies and short subjects are viewed. Related reading and writing assignments. Class meets three hours a week.
- CEN 5582 AMERICAN WRITERS 3CR**
Prerequisite: CEN 5732. 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 and their art. Class meets three hours a week.
- CEN 5583 WORLD MASTERPIECES 3CR**
Prerequisite: CEN 5732. 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.
- CEN 5584 MASTERPIECES OF THE CINEMA 3CR**
Prerequisite: CEN 5732. Major American and foreign films are shown in class and discussed. Group presentations and written film critiques are required. Additional video and short-shorts are used for variety and interest. Related reading assignments. Class meets for three hours one day each week.
- CEN 5586 CHILDREN'S LITERATURE 3CR**
 An exploration and analysis of what is best in children's literature both past and present. Emphasis on children's needs, criteria used in selecting books for children and the types of children's literature, and a study of the best authors and illustrators of children's books. Class meets three hours a week.
- CEN 5587 ADOLESCENT LITERATURE 3CR**
 An explanation and analysis of the most representative books in adolescent literature. Emphasis on needs and interests of young adults (ages 10-14), criteria in selecting books for them, current issues in books for adolescents and various themes and styles of these selections. Class meets three hours a week.
- CEN 4457 THE DEAF IN LITERATURE 2CR**
 This introduction to literature about the deaf focuses on the function and portrayal of deaf characters in

selected works. Students will read, discuss and write about the assigned selections. Class meets two hours each week.

CEN 3589 PROOFREADING SKILLS 1CR
Students will learn to recognize and correct major and minor errors on exercise sheets and in their own writing as set forth in the English Program Objectives. Class meets by arrangement.

CEN 3588 COMPOSING SKILLS 1CR
Students will review the various aspects of composition, beginning with creating and outlining, and moving to the development of a variety of paragraph and essay forms. Class includes individualized tutoring, practice in writing and meets by arrangement.

CEN 3587 SENTENCE PATTERN SKILLS 1CR
Students will work at their own pace in reviewing the parts of speech, elements of the sentence and basic sentence patterns. Emphasis will be on diagramming and combining sentences. Class includes individualized tutoring, practice in writing and meets by arrangement.

EQUINE STUDIES

SES 4734 STABLE MANAGEMENT 4CR
Survey of methods in caring for horses. Feeding, grooming, barn sanitation and upkeep will be emphasized. Two hours of classroom instruction and four hours of practical exercises in the stable a week.

SES 2352 BASIC HORSE TRAINING 2CR
Prerequisites: SES 4141 and SES 3644. This course covers halter breaking, leading, handling, biting, lounging, saddling and bridling, restraining and actual riding of young horses. Class meets eight hours a week for eight weeks.

SES 3784 ADVANCED HORSE TRAINING . . . 2CR
Prerequisite: SES 2352. A continuation of Basic Horse Training with emphasis on systems of training horses for specialized events. Class meets eight hours a week for eight weeks.

SES 2335 EQUINE ANATOMY AND PHYSIOLOGY 4CR
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.

SES 2053 BEGINNING HUNTER SEAT EQUITATION 2CR
Prerequisites: SES 4141 and SES 3644. An introduction to Hunter Seat 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. Class meets four hours a week in a sixteen-week term or eight hours a week in an eight-week term.



SES 2054 INTERMEDIATE HUNTER SEAT EQUITATION 2CR
Prerequisite: SES 2053. A continuation of *Beginning Hunter Seat Equitation* with emphasis on development of intermediate skill level in riding and showing. Class meets four hours a week in a sixteen-week term or eight hours a week in an eight-week term.

SES 2055 ADVANCED HUNTER SEAT EQUITATION 2CR
Prerequisite: SES 2054. A continuation of *Intermediate Hunter Seat Equitation* with emphasis on development of advanced skill level in riding and showing. Class meets four hours a week in a sixteen-week term or eight hours a week in an eight-week term.

SES 2066 BEGINNING STOCK SEAT EQUITATION 2CR
Prerequisites: SES 4141 and SES 3644. An introduction to Stock Seat equitation. Position of the rider, control of horse and basic movements will be stressed on a beginning to intermediate level. Class meets four hours a week in a sixteen-week term or eight hours a week in an eight-week term.

SES 2067 INTERMEDIATE STOCK SEAT EQUITATION 2CR
Prerequisite: SES 2066. A continuation of *Stock Seat Equitation* with emphasis on development of intermediate skill level in riding and showing. Class meets four hours a week in a sixteen-week term or eight hours a week in an eight-week term.

SES 2068 ADVANCED STOCK SEAT EQUITATION 2CR
Prerequisite: SES 2067. A continuation of *Stock Seat Equitation* with emphasis on development of advanced skill level in riding and showing. Four hours of riding a week in a sixteen-week term or eight hours a week in an eight-week term.

SES 1308 EQUINE JUDGING 2CR
Equine selection, class placings and evaluation techniques are primary topics covered. Class meets four hours a week.

SES 1350 EQUINE NUTRITION 4CR

Prerequisite: SES 2335 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.

SES 1184 TECHNIQUES OF RIDING INSTRUCTION I 3CR

Prerequisite: Permission of the program coordinator. 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.

SES 1237 TECHNIQUES OF RIDING INSTRUCTION II 3CR

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.

SES 1103 EQUINE SHOWMANSHIP 2CR

Prerequisite: SES 2053 or SES 2066 and SES 2746. Show ring rules and etiquette and practical knowledge of horse shows. Proper turn-out of horse and rider is emphasized. Class meets four hours a week.

SES 1156 BASIC HORSESHOEING 3CR

Horseshoeing, pulling shoes, trimming hooves, preparing feet and driving nails are practiced. Corrective shoeing techniques. Hot and cold shoeing. Basic foot anatomy. Class meets four hours a week.

SES 3029 EQUINE BREEDING AND MANAGEMENT 4CR

Prerequisite: SES 2335 Anatomy, reproductive physiology, genetics, breeding diseases, congenital and hereditary problems, selection and management of breeding stock. Class meets five hours a week.

SES 3820 EQUINE HEALTH, DISEASE AND DISORDERS 4CR

Prerequisite: SES 2335. A study of general health care and routine procedures; preventive health care; restraint of horse; horse owner's basic treatments; equine obstetrics and foal care; equine ailments; some special treatments and procedures; and the use of drugs and related substances. Class/lab meets five hours a week.

SES 4141 BASIC DRESSAGE 2CR

Prerequisites: SES 1880. 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 in a sixteen-week term or eight hours a week in an eight-week term.

SES 3644 INTERMEDIATE DRESSAGE 2CR

Prerequisite: SES 4141. A continuation of basic dressage with emphasis on calmness and obedience. Class meets four hours a week in a sixteen-week term or eight hours a week in an eight-week term.

SES 3489 ADVANCED EQUITATION PROJECT 2CR

Prerequisite: Permission of program coordinator. 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.

SES 2746 BEGINNING SADDLE SEAT EQUITATION 2CR

Prerequisites: SES 4141 and SES 3644. In this introduction to saddle seat equitation, the position of the rider, control of horse and basic movements will be stressed on a beginning to intermediate level. Class meets four hours a week in a sixteen-week term or eight hours a week in an eight-week term.

SES 2748 INTERMEDIATE SADDLE SEAT EQUITATION 2CR

Prerequisite: SES 2746. This continuation of *Saddle Seat Equitation* emphasizes the development of intermediate skill level in riding and showing. Topics include 12 tests often required in shows, the use of equipment to correct faults and improve form, and the best form for mounts according to breed and type. Class meets four hours a week in a sixteen-week term or eight hours a week in an eight-week term.

SES 2749 ADVANCED SADDLE SEAT EQUITATION 2CR

Prerequisite: SES 2748. The development of advanced skill in riding and showing is the focus of this continuation of *Saddle Seat Equitation*. Topics include the art of exhibiting horses and the principles of good showmanship, categories of classes for specific breeds, personal style of horsemanship, and the maintenance of horses in show condition. Class meets four hours a week in a sixteen-week term or eight hours a week in an eight-week term.

SES 2747 RECREATIONAL HORSE MANAGEMENT 3CR

This course is for inexperienced horseowners and those interested in purchasing a pleasure horse. Topics include the purchase of a horse and related equipment, maintenance of a pleasure horse, and safety. Class meets once a week for three hours.



FASHION MERCHANDISING

BFM 7013 FASHION FUNDAMENTALS I. 3CR

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.

BFM 1019 FASHION FUNDAMENTALS II. 3CR

Prerequisite: BFM 7013. 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.

BFM 3046 FASHION IN SOCIETY. 3CR

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.

BFM 4655 FASHION PROMOTION. 3CR

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.

BFM 1054 FASHION DISPLAY. 3CR

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.

BFM 1195 TEXTILES. 3CR

Natural and synthetic textile fibers, weaves, knits, dyeing and printing methods. Emphasis on selling techniques, care and use of textiles. Class meets three hours a week.

BFM 3503 MERCHANDISE EVALUATION. 3CR

Evaluation of textile and nontextile products, ranging from lingerie to handbags, crystal to china. Student will emphasize a 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.

BFM 3863 FASHION SEMINAR: HUMAN RELATIONS 2-3CR

Prerequisite: Admission to the Fashion Merchandising Program. Work experience in an approved training situation under instructional supervision. The study of how people can work effectively in groups to satisfy both organizational goals and personal needs. Class meets two hours a week with a minimum of fifteen hours a week on-the-job training by arrangement. Fall.

BFM 3865 FASHION SEMINAR: SUPERVISORY DEVELOPMENT 2-3CR

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 promotability, 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.

BFM 3864 FASHION SEMINAR: CAREER OPTIONS 2-3CR

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.

BFM 3862 FASHION SEMINAR: MARKET RESEARCH. 2-3CR

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.

BFM 2568 HISTORY OF DRESS. 3CR

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

BFM 5294 FASHION ILLUSTRATION I. 3CR

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.

BFM 1926 FASHION ILLUSTRATION II. 3CR

Prerequisite: BFM 5294. 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.

FIRE PROTECTION AND PUBLIC SAFETY

EFS 1745 FUNDAMENTALS OF FIRE PREVENTION 3CR

This first-year course covers 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.

EFS 3744 BUILDING CONSTRUCTION FOR FIRE PROTECTION 3CR
 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. This course should be taken in the second year. Class meets three hours a week.



EFS 4089 FIRE PHOTOGRAPHY 3CR
 This first-year course is an introduction to basic photography as it relates to the fire service. This course deals with the types of camera equipment used in the fire service. The course demonstrates how photography can be used in relation to the fire department goals and objectives. Class meets three hours a week.

EFS 1529 FIRE INVESTIGATION 3CR
 The emphasis in this first-year course is on the skills needed to determine the cause of a fire. This course does not deal with arson investigation, except as it relates to determining the cause. Class meets three hours a week.

EFS 1527 ARSON INVESTIGATION 3CR
Prerequisites: EFS 4089 and EFS 1529. Arson investigation techniques and procedures will be covered in this second-year course. Topics include evidence preservation, interviewing and interrogation and courtroom procedures. Class meets three hours a week.

EFS 1528 LIFE SAFETY CODES 3CR
 Find out how to read and interpret codes and ordinances in this first-year course. Emphasis will be on the Life Safety Codes which are used extensively in fire prevention. Class meets three hours a week.

EFS 1743 INTRODUCTION TO FIRE SCIENCE 3CR
 This first-year course is an introduction to the fire service and fire protection; career opportunities in fire protection and related fields; history of fire protection; fire loss analysis; public, quasi-public and private fire protection services; specific fire protection functions; fire chemistry and physics. Class meets three hours a week.

EFS 1748 FIRE HYDRAULICS 3CR
 This second-year course reviews applied mathematics, hydraulic 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.

EFS 2577 FIRE HYDRAULICS LABORATORY . 1CR
Prerequisite: EFS 1748 or concurrent enrollment. Experimentation and application of hydraulic laws, formulas and mental calculation of hydraulic and water supply problems. Testing water flows and water supplies as a function of hydraulics. Class meets three hours a week.

EFS 3757 FIRE APPARATUS AND EQUIPMENT 3CR
 This first-year course focuses on fire apparatus design, specifications and performance capabilities; effective utilization of apparatus in fire service emergencies. Class meets three hours a week.

EFS 5756 FIRE TACTICS AND STRATEGY . . . 3CR
 This second-year course covers principles of fire control through the utilization of manpower, equipment and extinguishing agents on the fireground. Class meets three hours a week.

EFS 6755 RESCUE PRACTICES 3CR
 Topics in this first-year course include rescue problems and techniques, emergency rescue equipment, toxic gases, chemicals and diseases, radiation hazards, care of victims, including emergency childbirth, respiration and resuscitation, extrication and other emergency conditions. Class meets three hours a week.

EFS 4481 RESCUE PRACTICES LABORATORY 1CR
Prerequisite: EFS 6755 or concurrent enrollment. Practical application of rescue theories and techniques. Includes auto extrication, repeling and CPR. Class meets three hours a week.

EFS 1523 SPRINKLER AND STANDPIPE SYSTEMS 3CR
 This second-year course concentrates on sprinkler and standpipe systems used in fire protection. Emphasis is on the types of sprinkler and standpipe systems and their operation. Class meets three hours a week.

EFS 1531 HAZARDOUS MATERIALS 3CR
Prerequisite: NPS 6634. This second-year course offers information on how to recognize hazardous materials and manage incidents involving hazardous materials. Topics include explosives, radioactive material, flammable and compressed gases as well as transportation of hazardous materials. Class meets three hours a week.

EFS 7981 ESSENTIALS OF FIRE FIGHTING . . . 4CR
 This first-year course offers instruction in the skills required for basic firefighting. Focus is on the theory of fire protection and on identifying and using equipment safely. Three hours of lab and three hours of lecture each week.

EFS 4256 FIRE VEHICLE MAINTENANCE FOR OPERATORS AND MECHANICS 1CR
 A second-year 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 one hour a week.

EFS 4245 FIRE SERVICE COMMUNICATIONS SYSTEMS 1CR
 A first-year introductory course on the basic fire alarm operator's area of specialized knowledge, duties and performance objectives. A general course on the functioning of the alarm office, the laws relating to the alarm office and communication procedures. The course is for operators and potential operators. Class meets one hour a week.

EFS 4250 FIRE SERVICE RECORDS AND REPORTS 1CR
 This first-year course instructs 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 one hour a week.

EFS 1532 MUNICIPAL FIRE ADMINISTRATION 3CR
 This second-year course covers techniques and methods used in managing a fire department. Topics include the budget process, fire department administrative functions and types of political systems which affect a fire department. Class meets three hours a week.

EFS 1525 EXTINGUISHING, DETECTION AND ALARM SYSTEMS 3CR
 This second-year course introduces the types of extinguishing, detection and alarm systems and their operation. Class meets three hours a week.

EFS 1526 FIRE SCIENCE LAW 3CR
 The fire department—like any other business—is affected by the law. This second-year course explores the law as it pertains to fire service. Topics include tort law and business law. Class meets three hours a week.

EFS 1524 EMERGENCY MANAGEMENT OPERATIONS 3CR
 This second-year course covers planning for disaster control, disaster management, communications for disaster management and types of disasters. Class meets three hours a week.



FOREIGN LANGUAGE

CFL 3285 ELEMENTARY SPANISH I 5CR
 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. One half-hour lab session a week also required.

CFL 1239 ELEMENTARY SPANISH II 5CR
Prerequisite: CFL 3285 or one year of high school Spanish. Continuation of Elementary Spanish I. Graded reading selections added as basis for conversation and composition in the discussion periods. Class meets five hours a week. One half-hour lab session a week also required.

CFL 7221 INTERMEDIATE SPANISH 3CR
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. One half-hour lab session a week also required.

CFL 6626 ADVANCED SPANISH 3CR
Prerequisite: CFL 7221 or three years of high school Spanish. Continuation of Intermediate Spanish with extensive study of Hispanic literature. Advanced reading. Grammar review continues. Class meets three hours a week. One half-hour lab session a week also required.

CFL 4570 ELEMENTARY FRENCH I 5CR
 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. Class meets five hours a week. One half-hour lab session a week also required.

CFL 2293 ELEMENTARY FRENCH II 5CR
Prerequisite: CFL 4570 or one year of high school French.
Continuation of Elementary French I with graded reading selections to be used as the basis for conversation. One half-hour lab session a week also required. Class meets five hours a week.

CFL 2247 CONVERSATIONAL FRENCH 2CR
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.

CFL 1442 INTERMEDIATE FRENCH 3CR
Prerequisite: CFL 2293 or two years of high school French.
Intermediate reading course to build vocabulary and comprehension and increase the speaking ability acquired in Elementary French I and II. Emphasis placed on conversation and composition in French. A grammar review of level I and II also is integrated into the course. Class meets three hours a week. One half-hour lab session a week also required.

CFL 5574 ADVANCED FRENCH 3CR
Prerequisite: CFL 1442 or three years of high school French.
Continuation of 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. One half-hour lab session a week also required.

CFL 3196 ELEMENTARY GERMAN I 5CR
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. One half-hour lab session a week also required.

CFL 6207 ELEMENTARY GERMAN II 5CR
Prerequisite: CFL 3196 or one year of high school German.
Continuation of Elementary German I, completing the presentation of the sounds, vocabulary and basic structural patterns of beginning German with further practice and development of listening comprehension, speaking, reading and writing skills. Class meets five hours a week. One half-hour lab session a week also required.

CFL 3401 INTERMEDIATE GERMAN 3CR
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. One half-hour lab session a week also required.

CFL 5199 ADVANCED GERMAN 3CR
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 with some additional practice in listening, speaking and writing. Class meets three hours a week. One half-hour lab session a week also required.

CFL 4144 ELEMENTARY CHINESE I 5CR
Introduction to the Chinese language known as "The Common Speech" as spoken in the Peking area. Instruction will be a combination of lecture, discussion and self-instruction tapes. Class meets five hours a week.

CFL 5783 BEGINNING JAPANESE 5CR
Introduction to the Japanese syllabary (hiragana) and some ideographs (Kanji). Includes language drills and an introduction to Japanese culture. Instruction will be a combination of lecture/discussion and self-instructional tapes. Class meets five times a week.

CFL 3391 ELEMENTARY RUSSIAN I 5CR
In this course students will study sounds, vocabulary and basic structural patterns of elementary Russian in conjunction with development of listening comprehension, speaking, reading and writing skills. Cultural material is integrated into all Russian courses. Class meets for five hours lecture and one half-hour lab each week.

HEARING IMPAIRED

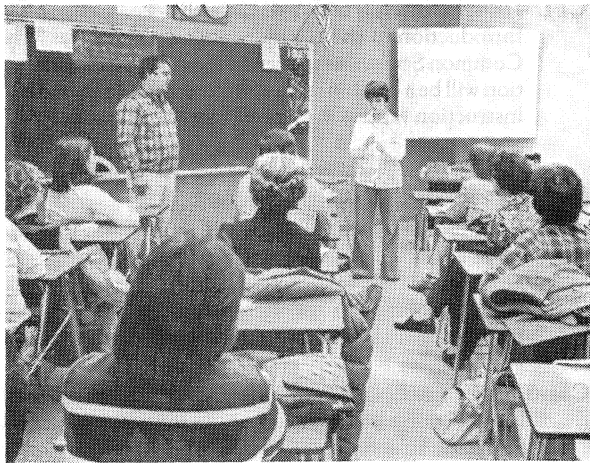
AHP 7029 BASIC MANUAL COMMUNICATIONS 3CR
Basic American Sign Language (ASL) used to communicate with deaf adults is taught. Subject material based on developing visual perception and body language skills for basic ASL communication. Class meets three hours a week.

AHP 1818 LAB FOR BASIC MANUAL COMMUNICATIONS 1CR
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.

AHP 4488 INTERMEDIATE MANUAL COMMUNICATIONS 3CR
Prerequisite: AHP 7029. A study in American sign language and a continuation of AHP 7029. A continuation of new signs with an emphasis on signed vocabulary in context, body and facial grammatical markers, and facial expressions. Class meets three hours a week.

AHP 6083 BASIC ENGLISH FOR HEARING IMPAIRED PERSONS (HIP) 3CR
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.

AHP 6084 BASIC ENGLISH FOR HIP II 3CR
Prerequisite: AHP 6083. Continuation of AHP 6083. Emphasis on grammar, organization, idiomatic usage, spelling and vocabulary, leading to clear written composition. Class meets five hours a week.



AHP 6085 BASIC ENGLISH FOR HIP III 3CR

Prerequisite: AHP 6084. Practice in expression through written compositions. Emphasis on organization, clarity of expression and style. Class meets five hours a week.

AHP 3024 ADJUSTMENTS INTO ADULT LIVING (HIP) 3CR

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.

AHP 6815 SPEECH THERAPY 3CR

The speech therapy program is designed to meet the student's needs. Communication disorders related to hearing loss, disfluency, resonance, voice and articulation problems are covered. Class meets three hours a week.

CLC 4609 DEVELOPMENTAL READING FOR THE HEARING IMPAIRED I 2CR

These small group sessions are designed to help the hearing impaired student develop reading skills. The course will emphasize reading comprehension and vocabulary development through the use of selected readings, current affairs readings, discussion and vocabulary building. Class meets three hours a week.

CLC 4626 DEVELOPMENTAL READING FOR THE HEARING IMPAIRED II 3CR

Prerequisite: CLC 4609. Group sessions held in this course are designed to enable the hearing impaired student to continue to develop reading skills. Emphasis is on reading, comprehension and vocabulary development through the use of selected readings, Lind 21 decoder, discussion and vocabulary building. Class meets three hours a week.

MTH 2122 FUNDAMENTALS OF MATH (HIP) 3CR

Review of fractions, decimals and whole numbers. Numeration. Practical applications of percent, dimensions and linear equations. Class meets three hours a week.

HOME ECONOMICS

BLH 2858 HOUSING AND EQUIPMENT 3CR

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 areas will be studied. New trends and ideas in housing materials and equipment will be observed by field trips and demonstrations. Class meets three hours a week.

BLH 7004 HOME MANAGEMENT 3CR

Emphasis will be on a systems approach to management particularly as it relates to the dual-career family. Goal setting, planning and decision-making skills will be applied to individuals and families. Techniques will be developed concerning managing time, energy and money which will promote efficiency in home management tasks. Class meets three hours a week.

BLH 2859 NUTRITION AND MEAL PLANNING 3CR

Study of food and nutrition as it applies to personal and family living. Emphasis on the basic food groups and their use in meal planning as well as the functions and sources of each nutrient. Students will evaluate their diets. Consideration will be given to current trends in eating patterns, diet and exercise, fad diets and life cycle nutritional needs. Class meets three hours a week.

BLH 7003 FAMILY COMMUNICATIONS 3CR

The interpersonal relationships of family members and factors contributing to effective communications. Strategies are developed for coping with stressful situations. The adult and family life cycle will be explored as a means of analyzing change. Current issues facing the family such as violence, drugs and divorce will be surveyed. Class meets three hours a week.



HOSPITALITY MANAGEMENT

BHM 6037 HOSPITALITY MANAGEMENT FUNDAMENTALS 3CR

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.

BHM 7028 BASIC FOOD PREPARATION 3CR

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.

BHM 4489 SUPERVISORY MANAGEMENT . 3CR

Supervision and motivation of employees in the hospitality industry with emphasis on human relations, delegation, training, evaluation and communications. Class meets three hours a week.

BHM 3006 FOOD MANAGEMENT 3CR

Prerequisite: BHM 7028 and admission to the Hospitality Management Program. Menu planning and meal service for all phases of food service and 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 promotion and competitiveness studies. Class meets five hours a week.

BHM 4203 HOTELMOTEL OPERATIONS. . . 3CR

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.

BHM 3903 DESIGN TECHNIQUES 3CR

Prerequisites: BHM 7028 and BHM 1287. 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 three hours a week.

BHM 2166 FOOD SPECIALTIES— GARDE-MANGER 3CR

Prerequisite: BHM 7028. A study of basic food preparation for the hospitality industry. Course will include soups, stocks, sauces, garde-manger section, chaudfroid pieces, buffets. Class meets three hours a week.

BHM 7803 ADVANCED FOOD PREPARATION 4CR

Prerequisites: 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.

BHM 1388 ADVANCED HOSPITALITY MANAGEMENT 3CR

Prerequisites: BHM 4489, BHM 4592, BHM 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.



BHM 2163 FUNDAMENTALS OF BAKING . 3CR

This basic baking course, including lecture and participation, will cover ingredients, measurements, mixing procedures, proofing procedures, baking and final presentation of product. Also covered will be the use of various types of baking equipment. The course is designed to give future chefs and restaurant managers a sound foundation in baking. Class meets for three hours each week.

BHM 2640 SEMINAR IN HOSPITALITY MANAGEMENT: INTERNSHIP 3CR

Prerequisite: Admission to the Hospitality Management Program. Supervised work experience within an approved area in the hospitality field. Class meets by arrangement. Summer.

BHM 4594 SEMINAR IN BEVERAGE CONTROL 2-3CR

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, internal control systems as well as local and state alcoholic beverage control laws. Class meets two hours a week.

BHM 4593 SEMINAR IN HOSPITALITY MANAGEMENT: PURCHASING 2-3CR
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.

BHM 4592 SEMINAR IN HOSPITALITY MANAGEMENT: ACCOUNTING 2-3CR
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.

BHM 4591 SEMINAR IN MENU PLANNING AND SALES PROMOTION 2-3CR
 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.

BHM 2913 CULINARY ARTS PRACTICUM I. 2CR
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.

BHM 4941 CULINARY ARTS PRACTICUM II 2CR
Prerequisite: BHM 2913. A continuation of Culinary Arts Practicum I.

BHM 5942 CULINARY ARTS PRACTICUM III 2CR
Prerequisite: BHM 4941. A continuation of Culinary Arts Practicum II.

BHM 7943 CULINARY ARTS PRACTICUM IV 2CR
Prerequisite: BHM 5942. A continuation of Culinary Arts Practicum III.

BHM 6944 CULINARY ARTS PRACTICUM V 2CR
Prerequisite: BHM 7943. A continuation of Culinary Arts Practicum IV.

BHM 9945 CULINARY ARTS PRACTICUM VI 2CR
Prerequisite: BHM 6944. A continuation of Culinary Arts Practicum V.

BHM 3425 SCHOOL FOOD SERVICE DEVELOPMENT 1CR
 This course is designed to give students a foundation in school food service operations. In a hands-on practical approach to cafeteria operations, the class will cover four areas: productivity and planning, purchasing, preparation and service. Class meets one hour each week.

HUMANITIES

HUM 6120 INTRODUCTION TO THE HUMANITIES 3CR
 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 also is examined. Class meets three hours a week.

HUM 5431 COMPARATIVE CULTURES 3CR
 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.

HUM 2310 PROBLEM-SOLVING TECHNIQUES 1CR
 This course emphasizes basic techniques of problem solving which are applicable to real situations. Students can learn to identify different types of problems and models for solving such problems as well as errors most commonly made in modeling a particular problem. Class meets for one hour lecture each week.

HUM 7520 INTRODUCTION TO PHILOSOPHY 3CR
 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.

HUM 2532 PHILOSOPHY OF CURRENT CIVILIZATION 3CR
 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.

HUM 2541 PHILOSOPHY OF RELIGION 3CR
 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.

HUM 5966 HISTORY OF ANCIENT PHILOSOPHY 3CR

This course examines the amazing richness of ancient Greek and Roman thought, ranging from speculation about the universe and theories of natural selection and atomism to carefully thought out treatises on the nature of humans and society. Selections from ancient texts will be used with commentary where appropriate. Class meets three hours a week.

HUM 6392 LOGIC 3CR

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

HUM 3080 ETHICS 3CR

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.

HUM 4000 ETHICAL ISSUES IN AMERICAN HEALTH CARE 1CR

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. Class meets one hour a week.

INTERIOR MERCHANDISING

BIM 2564 INTERIOR DESIGN I 3CR

A basic course in interior design emphasizing the elements and principles of design, color and color theory, as well as practical application of materials used in today's home. Class meets three hours a week.

BIM 2565 INTERIOR DESIGN II 3CR

Prerequisite: BIM 2564. 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.

BIM 2561 INTERIOR PRODUCTS 3CR

Comprehensive study of materials used for interiors, their characteristics, application and availability. This product information will offer competencies for employment in the interior products industry and practical home use. Areas covered will include floor, wall and window coverings, and furniture. New

trends and ideas in housing will be observed through field trips and demonstrations. Class meets three hours a week.

BIM 4035 SPACE PLANNING 3CR

A series of practical problems designed to develop a sense of utilization of interior space from a functional and psychological point of view. Interpretation of architectural floor plans, symbols and use of templates. Perspectives and lettering will be included.

BIM 3032 HISTORY OF INTERIOR DESIGN . . . 3CR

A chronological study of furniture and interiors with specific information in the areas of materials, construction, motifs, colors and contributing influences. Emphasis on current interpretations of historical styles within today's home. Class meets three hours a week.



BIM 6602 INTERIOR MERCHANDISING SEMINAR: PRACTICES AND PROCEDURES 2-3CR

Work experience in an approved training situation under instructional supervision. Study of various types of interior product business formations, contracts, papers and procedures necessary for effective business management. Discussion of job opportunities and business ethics. Class meets two hours a week with a minimum of fifteen hours a week on-the-job training by arrangement.

BIM 5021 INTERIOR MERCHANDISING SEMINAR: BUDGET AND ESTIMATING 2-3CR

Work experience in an approved training situation under instructional supervision. Projects done in residential and commercial jobs that will require specification writing and cost control. Emphasis on accurate measurement of materials and figuring actual costs. Class meets two hours a week with a minimum of fifteen hours a week on-the-job training.

BIM 4153 INTERIOR MERCHANDISING SEMINAR: HUMAN RELATIONS 2-3CR

Prerequisite: Admission into the Interior Merchandising Program. In this seminar, Interior Merchandising Program students can gain work experience in an approved training situation under instructional supervision. Topics will include job orientation, sales effectiveness, job applications, interviews, sources of job product information and techniques for handling customer, employer and employee relations. Class meets for two hours of lecture each week by arrangement.

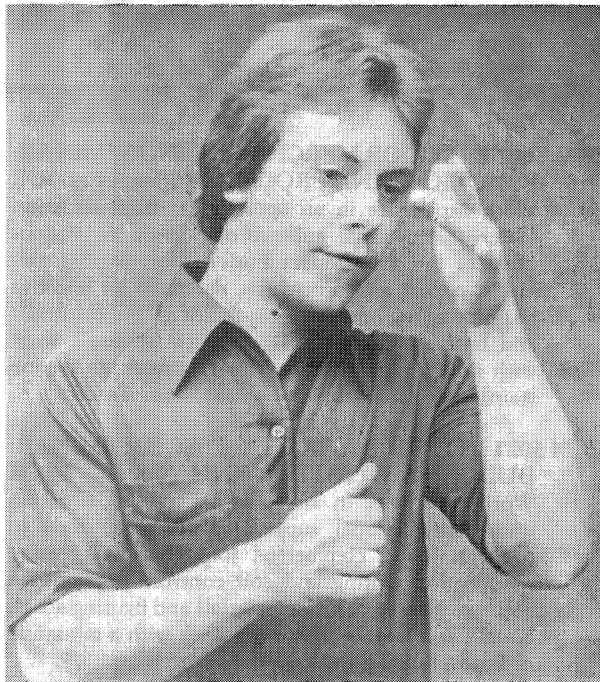
BIM 4154 INTERIOR MERCHANDISING SEMINAR: SUPERVISORY DEVELOPMENT 2-3CR

Prerequisite: Admission into the Interior Merchandising Program. In this seminar, Interior Merchandising Program students can gain work experience in an approved training situation under instructional supervision. Topics will include job orientation, sales effectiveness, job applications, interviews, sources of job and product information and techniques for handling customer, employer and employee relations. Class meets for two hours of lecture each week. There will be a minimum of fifteen hours of on-the-job training each week by arrangement.

INTERPRETER TRAINING

AIT 4687 ELEMENTARY AMERICAN SIGN LANGUAGE (ASL) 8CR

Extensive exposure to ASL allowing the development of beginning communication skills used with deaf persons. Emphasis on comprehension skills as well as linguistic features of the language taught in context. Five hours of lecture, six hours of lab a week.



AIT 4688 INTERMEDIATE AMERICAN SIGN LANGUAGE (ASL) 7CR

Prerequisite: AIT 4687. Intensive exposure to ASL allowing the continued development of intermediate level communication skills used with deaf persons. Emphasis on comprehension and production skills. Linguistic and cultural features will be presented in the context of language learning experiences. Five hours of lecture, four hours of lab a week.

AIT 4689 ADVANCED AMERICAN SIGN LANGUAGE I 5CR

Prerequisite: AIT 4688. Continued exposure to ASL allowing greater development of ASL communication skills. Emphasis on comprehension and production skills. Linguistic and cultural features will be presented in the context of language learning experiences. Three hours of lecture, four hours of lab a week.

AIT 2330 ENGLISH EQUIVALENTS FOR ASL 3CR

Prerequisite: AIT 4689 or permission of division director and proficiency in ASL. This course will develop an understanding of the numerous English equivalents for ASL discourse, enhancing the written English skills of deaf students and interpreting skills of hearing students. Class meets three hours each week.

AIT 4694 ADVANCED AMERICAN SIGN LANGUAGE II 3CR

Prerequisite: AIT 4689. Continued exposure to ASL allowing greater development of ASL communication skills. Emphasis on comprehension and production skills. Linguistic and cultural features will be presented in the context of language learning experiences. Three hours of lecture a week.

AIT 4699 ADVANCED AMERICAN SIGN LANGUAGE III 1CR

Prerequisite: AIT 4694. Continued exposure to ASL allowing greater development of ASL communication skills. Emphasis on comprehension and production skills. Linguistic and cultural features will be presented in the context of language learning experiences. Two hours of lab a week.

AIT 4698 THEORY OF AMERICAN SIGN LANGUAGE 3CR

Prerequisite: AIT 4688. A course to examine the structural and grammatical principles of ASL. An introductory study of the linguistic and semiotic problems of equivalency in English and American Sign Language. By incorporating linguistic information into the text analysis process, quality interpretation of English and ASL should result. Three hours of lecture a week.

AIT 4690 FINGERSPELLING I 3CR

This course will develop beginning expressive and receptive fingerspelling skills based on word and phrase recognition principles. Two hours of lecture, three hours of lab a week.

AIT 4695 FINGERSPELLING II 1CR

Prerequisite: AIT 4690. This course will continue the development of expressive and receptive fingerspelling skills based on word and phrase recognition principles. One hour of lecture and one hour of lab a week.



AIT 4705 INTERPRETING TECHNIQUES . . . 3CR

Course is intended to upgrade interpreting/transliterating skills of persons with advanced ASL and signed English skills. Analysis of English sentences and transposition required for ASL interpretation will be emphasized. Class meets three hours a week.

AIT 4696 SIGN SYSTEMS AND SPECIALIZED SIGN VOCABULARY 3CR

Prerequisite: AIT 4689. An introduction to various sign systems such as Manually Coded English and Pidgeon Sign English. English and sign vocabulary development for specialized interpreter settings: medical, legal and educational. Three hours of lecture and one hour of lab a week.

AIT 4686 NON-VERBAL COMMUNICATION AS A SIGN LANGUAGE BASE 3CR

Sequenced series of readiness activities designed to help the student develop skills in communicating without words, utilizing the vital elements of expressive communication (facial expression, body language, pantomime and gesture), and the vital elements of receptive communication (face reading, body reading and eye training). Three hours of lecture a week.

AIT 4691 ORIENTATION TO INTERPRETING 3CR

An overview of interpreting as an occupation. Topics include interpersonal skills, professional ethics, parameters of responsibility of the interpreter, examination of community resources and legal ramifications. Class meets three hours a week.

AIT 5169 UNDERSTANDING DEAFNESS . . . 3CR

This course focuses on the study of the deaf culture; the problems faced by the deaf; and understanding the impact of being deaf. Three hours of lecture a week.

AIT 5164 INTERPRETING I 3CR

Prerequisites: AIT 4689 and AIT 4691. Introduction to interpreting principles with emphasis on English-to-ASL and ASL-to-English skills development in sequential drills and practical application. Class meets three hours a week.

AIT 5171 INTERPRETING II 3CR

Prerequisites: AIT 5170. Advanced course with concentration on voice and expressive ASL interpreting skills inter-

faced to simulate actual employment situations. Class meets three hours a week.

AIT 4703 INTERPRETERS AND PHYSICAL "BURN OUT" 1CR

Discussion of the mental and physical stress caused by interpreting. Therapeutic exercises to prevent negative physical effects. Class meets one hour a week.

AIT 5172 INTERPRETING PRACTICUM . . . 3CR

Prerequisite: Concurrent enrollment in AIT 5171. Introductory field experience involving observation and interaction totaling 45 hours a semester. Discussion of current literature in the field. Class/lab meets six hours a week.

AIT 2334 SPECIAL TOPICS 1-8CR

Prerequisite: Depends on topic. Course covers current trends and topics in the field of interpreting. Topics such as medical/mental health interpreting, deaf-blind interpreting, oral interpreting, educational interpreting and trends in the field will be offered on "as needed" basis and may be repeated for up to eight credits. Lecture/lab hours vary, one to four hours depending on topic and number of lecture/lab hours needed.

AIT 4452 INDEPENDENT STUDY: INTERPRETER TRAINING 1-3CR

Prerequisite: Permission of the division director. Directed independent study will be conducted in areas related to special interpreting situations, forms of communication and current issues in the hearing-impaired field. Course may be repeated. No more than six hours of credit may be accrued for the course. Class meets for one to three hours of lab each week.

JOURNALISM

CJO 4161 MASS MEDIA AND SOCIETY 3CR

Survey designed to emphasize the content, structure, persuasive influence, responsibilities and problems of mass communication. The focus will be on television, radio, newspapers, magazines, public relations and advertising. Class meets three hours a week.

CJO 3901 NEWS REPORTING I 3CR

Prerequisite: Basic typing skills or concurrent enrollment in BSC 1263. Basic news writing and news style principles emphasized. Interviewing techniques developed. Practical application gained as students write stories for the campus newspaper. Class meets three hours a week.

CJO 3902 NEWS REPORTING II 3CR

Prerequisite: Beginning Typing or equivalent and CJO 3901. An evaluation of how various news is gathered, written and published. Specialized reporting techniques are studied. Practical experience gained as students write stories for the campus newspaper. Class meets three hours a week.

CJO 2136 FUNDAMENTALS OF ADVERTISING 3CR

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.

CJO 7139 ADVERTISING COPYWRITING 3CR
Principles of advertising copywriting with practice in developing copy for a variety of products. Each class member prepares an advertising campaign. Class meets three hours a week.

CJO 5266 JOURNALISM FIELD STUDY I 1-3CR
Prerequisite: By permission of division director. 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 5-15 hours of on-the-job training a week by arrangement. Class meets two hours a week.

CJO 5267 JOURNALISM FIELD STUDY II . . . 1-3CR
Prerequisite: By permission of division director. 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 5-15 hours of on-the-job training a week by arrangement. Class meets two hours a week.

CJO 5268 JOURNALISM FIELD STUDY III . . . 1-3CR
Prerequisite: By permission of division director. 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 5-15 hours of on-the-job training a week by arrangement. Class meets two hours a week.

LEARNING CENTER

CLC 5373 COLLEGE READING IMPROVEMENT I 3CR
Prerequisite: Appropriate assessment score. This beginning-level reading course will cover such areas as the development of word-study skills, basic sight-sound list, improvement of literal comprehension skills, determination of main ideas, and literal recall. Class meets for three hours each week.

CLC 5374 COLLEGE READING IMPROVEMENT II 3CR
Prerequisite: CLC 5373 or appropriate assessment score. In this intermediate-level course, students will review skills taught in *College Reading Improvement I* and work on developing comprehension skills, recognizing significant details, recognizing skimming and scanning techniques, distinguishing facts from opinions, summarizing and drawing conclusions. Techniques for improving reading rate will be introduced. Class meets for three hours each week.

CLC 5375 COLLEGE READING IMPROVEMENT III 2CR
Prerequisite: CLC 5374 or appropriate assessment score. This advanced-level course reviews the skills taught in *College Reading Improvement II* and concentrates on improving reading rate, vocabulary and memory. Also covered will be recognizing intent, attitude, bias

and tone; arriving at inferences; making critical judgements; understanding the use of figurative language. Class meets for two hours each week.

CLC 4614 READING COMPREHENSION 1CR
Individualized instruction in sequenced kits emphasizing general comprehension skills through use of survey technique and related vocabulary development. Class meets by arrangement.



CLC 4615 READING RATE 1CR
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.

CLC 4608 STUDY SKILLS MINI COURSE 1CR
Small group sessions to help develop study skills in test taking; taking notes and using a textbook; critical reading and memory recall; effective listening and classroom strategies; and library and counseling resources. Students will read and discuss basic information. Practice exercises will be provided for use in the lab. Class meets three hours a week for five weeks.

CLC 4611 STUDY SKILLS 1CR
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.

CLC 4616 VOCABULARY DEVELOPMENT . . . 1CR
Students work toward improved vocabulary by concentrating on techniques of unlocking meaning through context clues and knowledge of roots, prefixes and suffixes. Class meets by arrangement.

CLC 4613 SPELLING IMPROVEMENT 1CR

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

CLC 4612 ENGLISH GRAMMAR REVIEW . . . 1CR

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 capitalization. Class meets by arrangement.

CLC 4617 BASIC MATH REVIEW 1CR

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.

CLC 4618 ALGEBRA PREPARATION 1CR

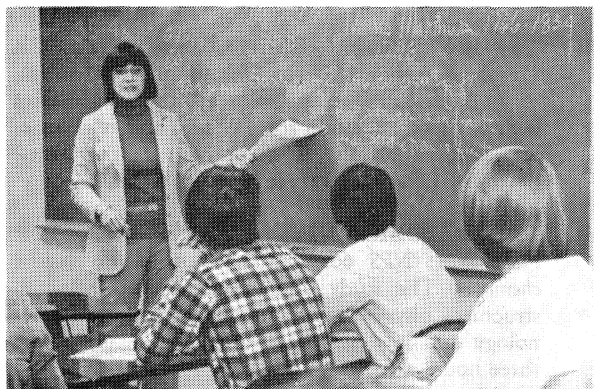
Diagnostic test results place a student at the appropriate level in programmed materials dealing with sets, counting numbers, integers, rational numbers, equations involving two variables, polynomials, factoring, quadratics and absolutes, graphing, exponents and logarithms. Class meets by arrangement.

CLC 4619 CHEMISTRY PREPARATION 1CR

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.

CLC 1300 JOB SEARCH SKILLS 1CR

The techniques and procedures for getting a job are described in this course. How to write a job application, develop a resumé and interview for a job are covered in lecture, assignments and role playing. Upon completion of the course, the student will have a personal resumé and experience in completing a job application and in interviewing from the employer's and employee's viewpoint. Class meets one hour per week.



CLC 4620 INDIVIDUALIZED STUDY 3CR

Individualized instruction in areas of special need and interest prescribed on the basis of diagnostic evaluation. Programs of study are tailored to abilities, learning style, interests and degree of self-discipline. Students proceed at their own pace and level on self-motivating materials and projects. Areas of study include grammar, spelling, vocabulary, reading rate/comprehension, study skills, mathematics, algebra and chemistry.

CLC 4621 INDIVIDUALIZED STUDY 2CR

CLC 4622 INDIVIDUALIZED STUDY 1CR

CLC 3658 INTRODUCTION TO MICROCOMPUTERS 3CR

This is a "hands-on" course to acquaint students with microcomputers and how they solve problems. Included in the course is a general orientation to microcomputers: what they are, what they can and cannot do and how they operate. Also included is an introduction to the BASIC programming language. Class meets two lecture hours and three laboratory hours a week.

LIFE SCIENCE

NLS 5020 PRINCIPLES OF BIOLOGY 3CR

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 three hours a week.

NLS 5091 PRINCIPLES OF BIOLOGY LAB 1CR

Corequisite: NLS 5020 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.

NLS 1037 PATHOPHYSIOLOGY 3CR

An introduction to the physiology of disease. Common disorders of the body from the cellular level to the systemic levels are studied. Included are causes, symptoms, diagnostic tests, treatment and therapies of disease. Class meets three hours a week.

NLS 1144 HUMAN PHYSIOLOGY 4CR

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. Six hours lecture/integrated lab each week.

NLS 1128 HUMAN ANATOMY 4CR

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. Six hours lecture/integrated lab each week.

NLS 4720 ENVIRONMENTAL SCIENCE LAB . . 1CR

Corequisite: NLS 6719. Laboratory work involves sampling the local environment for various types of air, water and noise pollution. Field trips include visiting a local industry, a water treatment plant and a sewage treatment plant to observe pollution control. Class meets two hours a week. In addition, up to five field trips will be required.

NLS 6719 ENVIRONMENTAL SCIENCE 3CR

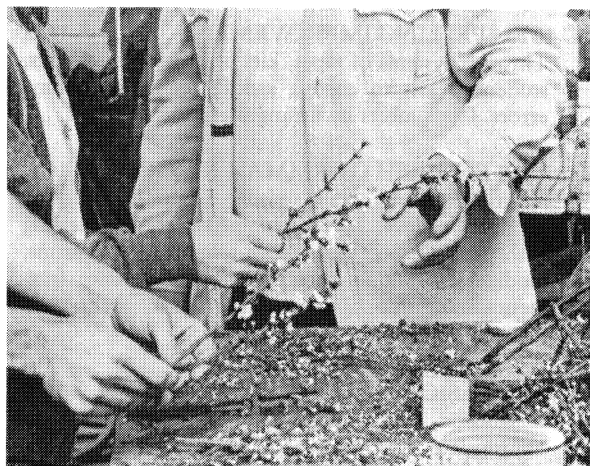
An ecological approach to the study of the human population's impact on the environment. Topics include population, air and water pollution, land use and energy. Class meets three hours a week.

NLS 6186 HUMAN ANATOMY AND PHYSIOLOGY 5CR

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.

NLS 6540 LIFE SCIENCE 4CR

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.



NLS 4914 SPECIAL TOPICS IN BIOLOGY: SOUTHWESTERN FIELD COURSE 4CR

Course is designed to provide students with natural science field experiences illustrating fundamental concepts and principles in the ideal setting of the southwestern United States. Basic biological concepts which can best be learned through first-hand experiences will be examined. Class meets 22 days in the field.

NLS 4241 GENERAL ZOOLOGY 5CR

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 adaptation. Three hours of lecture and four hours of lab each week.

NLS 5402 GENERAL BOTANY 5CR

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.

NLS 6152 GENERAL NUTRITION 3CR

Corequisite: 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.

NLS 1264 GENERAL PHARMACOLOGY 3CR

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.

NLS 5593 MICROBIOLOGY 3CR

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.

NLS 6057 MICROBIOLOGY LABORATORY . . . 2CR

Corequisite: 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.

NLS 4248 GENERAL GENETICS 3CR

Fundamental principles of heredity and variation. Concepts of classical and modern genetics. Plant, animal and human variations are covered. Class meets three hours a week.

NLS 5057 GENERAL HEAD AND NECK ANATOMY 4CR

Corequisites: NDL 7252 and NDH 7253. This course will include study of cells, tissues and organ systems of the human body with emphasis on the head and neck. Discussion and analysis of each body region will be included as well as embryology of the head and neck. Three hours lecture, three hours of lab each week.



BMM 5026 SALESMANSHIP 3CR

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.

BMM 2407 CREATIVE RETAIL SELLING . . . 3CR

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.

BMM 2370 SALES MANAGEMENT 3CR

Prerequisite: BMM 2407 or BMM 5026. 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.

BMM 3874 MARKETING AND MANAGEMENT SEMINAR: MANAGEMENT DECISION MAKING 2-3CR

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.

BMM 3877 MARKETING AND MANAGEMENT SEMINAR: ORGANIZATION AND OPERATION 2-3CR

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.



MARKETING MANAGEMENT

BMM 1206 RETAILING 3CR

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.

BMM 1303 RETAIL ADVERTISING AND DISPLAY 3CR

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.

BMM 3873 MARKETING AND MANAGEMENT SEMINAR: MANAGEMENT 2-3CR
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.

BMM 3875 MARKETING AND MANAGEMENT SEMINAR: MARKETING RESEARCH . 2-3CR
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.

BMM 3876 MARKETING AND MANAGEMENT SEMINAR: FINANCIAL ANALYSIS 2-3CR
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, two or three credits.

MATHEMATICS

MTH 2009 HONORS PROJECT IN MATHEMATICS 1-2CR
Prerequisite: Permission of division director. In this course the students will work on projects of special interest approved by a mathematics instructor. The progress on a project will be monitored by the instructor. Projects will be tailored to the abilities as well as the interests of the students and will include computers as well as any topic in mathematics. Class meets two to four hours of lab each week.

MTH 2084 STATISTICS 3CR
Prerequisite: MTH 3001 or equivalent. Introduces descriptive statistics, probability models, sampling distribution, hypothesis testing, chi-square test, regression and correlation. Emphasis on practical applications. Class meets three hours a week.

MTH 2122 FUNDAMENTALS OF MATH 3CR
 Review of fractions, decimals and whole numbers. Numeration. Practical applications of percent, dimensions and linear equations.



MTH 2594 TRIGONOMETRY 3CR
Prerequisite: MTH 3001 Trigonometric functions, identities, graphs, equations, inverse trigonometric functions, polar coordinates, complex numbers and applications. Class meets three hours a week.

MTH 3000 GEOMETRY 2CR
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.

MTH 3001 INTERMEDIATE ALGEBRA 3CR
Prerequisite: MTH 7246 or one year of high school algebra. Polynomials, rational expressions, radicals, equations and inequalities, graphing, relations, functions and systems of equations. Class meets three hours a week.

MTH 3268 ANALYTIC GEOMETRY—CALCULUS I 5CR
Prerequisite: MTH 3427 or MTH 6079 and concurrent enrollment in MTH 2594. The first course of a three-semester sequence in analytic geometry and calculus. Elements of plane analytic geometry, differentiation and integration of algebraic functions with applications of each. Five hours of lecture each week.

MTH 3427 COLLEGE ALGEBRA 3CR
Prerequisite: MTH 3001 or two years of high school algebra. A study of polynomial, rational, exponential and logarithmic functions, systems of equations, conics, determinants, sequences and series, combinations, binomial theorem. Three hours lecture each week.

MTH 3609 MODERNIZED METRIC SYSTEM . . 1CR
 Background for understanding the international metric system. Experiences concentrate on length, mass, volume, temperature and appropriate prefixes. One hour lecture each week.

MTH 3675 DIFFERENTIAL EQUATIONS 3CR
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. Three hours lecture each week.

**MTH 4313 ANALYTIC GEOMETRY—
CALCULUS II 5CR**

Prerequisite: MTH 3268 or equivalent. The second course of a three-semester sequence in analytic geometry and calculus. Riemann integral, differentiation and integration of transcendental functions, techniques of integration, polar coordinates and applications. Five hours lecture each week.

MTH 4419 ELEMENTARY MATH TOPICS . . . 3CR

Prerequisite: MTH 7246 or one year of high school algebra or equivalent. Mathematics for the elementary education or liberal arts student. Includes topics selected from inductive and deductive reasoning, sets, equation solving, measurement, number sequences, linear programming, computers, calculators, probability and statistics, and graphing. (30 T.V. tape modules, 30 minutes each when offered on T.V.) Three hours lecture each week.

MTH 5329 CALCULUS II 3CR

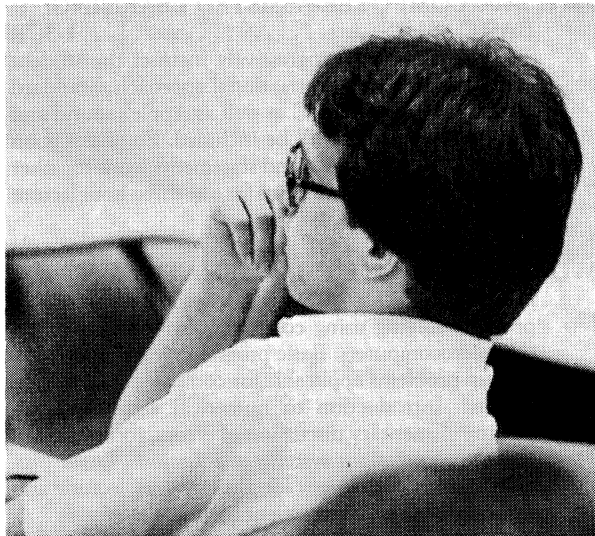
Prerequisites: MTH 6463 and MTH 2594. The second course of a two-semester sequence in calculus. Techniques of integration, differential equations and functions of several variables with applications in business, statistics, biology and the social sciences. Three hours lecture each week.

MTH 5387 TECHNICAL MATHEMATICS II . . 5CR

Prerequisite: MTH 5722 or equivalent. Plane and solid geometry quantification; quadratic equations and graphs; trigonometric functions and laws; vectors and complex numbers; exponential and logarithmic equations and graphs; layperson's statistics and financial mathematics. Five hours lecture each week.

MTH 5722 TECHNICAL MATHEMATICS I . . . 5CR

Prerequisite: MTH 2122 or arithmetic proficiency test in Testing Center. International Standard mensuration; percent, proportion, linear equations and graphs; formulation, trigonometry of right triangles. Emphasis on technological applications from industry. Three hours lecture each week.



MTH 6079 ALGEBRA 5CR

Prerequisite: MTH 3001 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. Five hours lecture each week.

**MTH 6357 ANALYTIC GEOMETRY—CALCULUS
III 5CR**

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. Five hours lecture each week..

MTH 6463 CALCULUS I 3CR

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. Three hours lecture each week.

MTH 7246 INTRODUCTION TO ALGEBRA . . 3CR

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. Three hours lecture each week.

MTH 9000 MATH FOR ELECTRONICS I 5CR

The theory and application of algebra as it is used in solving and understanding electronic circuits. Class meets five hours a week.

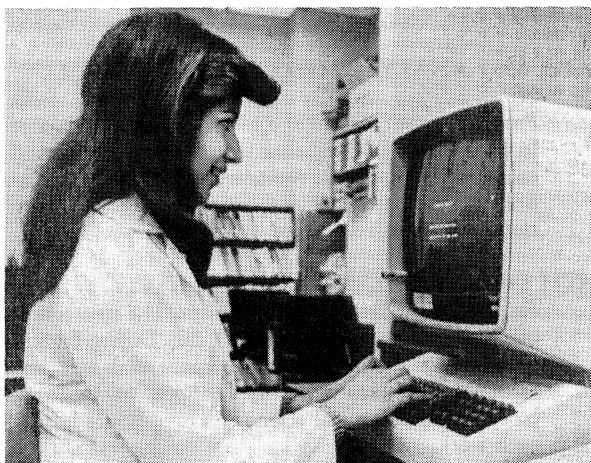
MTH 9001 MATH FOR ELECTRONICS II 5CR

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.

MTH 8400 COMPUTER-ASSISTED LEARNING: BASIC 1-3CR
 The computer will progressively instruct the student in BASIC using a conversational approach. Standard instruction set in BASIC as well as Apple's sound and graphics capabilities will be included. Emphasis is on how BASIC commands and statements work together to form programs. Class meets for one three-hour lecture each week.

MTH 6245 COMPUTER MATHEMATICS I . . . 4CR
Prerequisite: MTH 3001. An introductory study of problem solving using computers, with emphasis on the microcomputers. Basic programming skills for setting up problems applicable for computer solution are stressed. Introduction to numerical algorithms, including elementary discussion of errors, roots of equations, interpolation, systems of equations, linear programming. Class meets for three hours lecture and two hours lab by arrangement each week.

MTH 6246 COMPUTER MATHEMATICS II . . . 4CR
Prerequisite: MTH 6246. The second course of a two semester sequence in computer science. The student will "discover" facts and concepts in algebra, number theory, finite math, calculus and other special topics that lend themselves to computer discovery. Class meets for three hours lecture and two hours lab by arrangement each week.



MEDICAL LABORATORY TECHNOLOGY

NLT 9759 DIAGNOSTIC PARASITOLOGY AND MYCOLOGY 1CR
Prerequisites: Completion of first year of the MLT program or completion of NLS 5593 and NLS 6057. 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 integrated closely with the specific disease process and treatment. Class meets one hour a week.

NLT 9760 INTRODUCTION TO THE CLINICAL LAB 1CR
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.

NLT 9761 FUNDAMENTAL TECHNIQUES AND PROCEDURES 3CR
 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.

NLT 9762 DIAGNOSTIC MICROBIOLOGY . . 3CR
Prerequisite: Completion of the first year of the MLT program or permission of division director. The student will study the morphology, growth characteristics and pathological implications of bacteria and will correlate this with findings in various disease states. Class meets three hours a week.

NLT 9763 CLINICAL PRACTICUM I 5CR
Prerequisite: Satisfactory completion of the first year of the MLT program or permission of the division director. In a clinical setting, the student will observe, practice and perform laboratory procedures under the supervision of clinical instructors. The student should be able to integrate didactic knowledge with clinical experience. Class meets 35 hours a week.

NLT 9766 CLINICAL PRACTICUM II 10CR
Prerequisite: NLT 9763. The student will observe, practice and apply techniques of hematology and clinical chemistry, both manual and automated. Class meets 35 hours a week.

NLT 9769 CLINICAL PRACTICUM III 10CR
Prerequisite: NLT 9766. The student will observe, practice and apply techniques of applied immunology, urinalysis and the other specialty areas of the clinical laboratory. Class meets 35 hours a week.

NLT 9764 CLINICAL CHEMISTRY 4CR
 The student will review and integrate specific pathologic conditions with chemical procedures. Class meets three hours a week.

NLT 9765 HEMATOLOGY 3CR
Prerequisite: Completion of first year of MLT program or permission of division director. 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 also will be included.

NLT 9767 DEPARTMENTAL SEMINAR 3CR
 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.

NLT 9768 APPLIED IMMUNOLOGY3CR
Prerequisite: Completion of first year of MLT program or permission of division director. 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.

MEDICAL RECORDS TECHNOLOGY

NMR 1135 INTRODUCTION TO THE MEDICAL RECORD PROFESSION2CR
Prerequisite: Admission to program. 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.

NMR 2681 HEALTH RECORD SYSTEMS: ANALYSIS AND CONTROLS3CR
Prerequisite: NMR 1135 or permission of division director. 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 four hours a week.

NMR 2685 HEALTH STATISTICS AND RESEARCH METHODS2CR
Prerequisite: NMR 1135 or permission of division director. Vital 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.

NMR 2682 CLASSIFICATIONS, NOMENCLATURES, INDICES AND REGISTRIES2CR
Prerequisites: NMR 2681, NLS 6186. Corequisite: NS 2686. Study of the 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.

NMR 2683 QUALITY ASSURANCE AND SELECTED HEALTH RECORD SYSTEMS3CR
Prerequisite: NMR 2682 or permission of division director. Study of health records and services of long-term and ambulatory care. Emphasis on quality assurance requirements of regulatory agencies and the methodology and procedures in assessing quality of care. Class meets four hours a week.

NMR 2684 LEGAL ASPECTS OF MEDICAL RECORDS2CR
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.



NMR 7111 DIRECTED PRACTICE I3CR
Prerequisites: NMR 1135, 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.

NMR 1325 DIRECTED PRACTICE II4CR
Prerequisites: NMR 7111, NMR 2682, BSC 4715. Corequisite: NMR 2683. Experience in a variety of procedures performed in the laboratory and clinical setting. Clinical experience is gained in coding and abstracting health information, tumor registry, medical transcription and quality assurance. Hours by arrangement.

NMR 3117 DIRECTED PRACTICE III5CR
Prerequisite: NMR 2683, NMR 1325. Corequisite: NMR 2684. 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.

NMR 2345 DEPARTMENTAL SEMINAR2CR
Prerequisite: NMR 2683. Corequisite: NMR 3117. 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 two hours a week.

MEDICAL TERMINOLOGY

NS 5381 MEDICAL TERMINOLOGY I 2CR

Self-instructional approach to learning medical terminology. 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, musculoskeletal, genitourinary and nervous systems. Class meets by arrangement.

NS 6476 MEDICAL TERMINOLOGY II 1CR

Prerequisite: NS 5381. Continuation of NS 5381. Student may choose any two areas not previously studied. Class meets by arrangement.

NS 4165 MEDICAL TERMINOLOGY III 1CR

Prerequisite: NS 6476. Continuation of NS 6476. Student may choose any two areas not previously studied. Class meets by arrangement.

NS 2686 MEDICAL TERMINOLOGY IV 3CR

Prerequisite: NMR 1135 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.



MEDICAL TRANSCRIPTION

NMT 3413 MEDICAL TRANSCRIPTION PRACTICUM 4CR

Prerequisite: BSC 4715, NS 2686, NMR 2681 or by permission of division director. Supervised work experience in medical transcription. Typing medical reports dictated by physicians from transcriber equipment. Previously acquired knowledge and skills are applied and enhanced by this job-related experience. Hours by arrangement.

MENTAL HEALTH TECHNOLOGY

NMH 8881 MENTAL HEALTH TECHNOLOGY

I 4CR

Prerequisite: Admission to the program. Basic concepts necessary for the maintenance of physical health. A supervised clinical practicum integrates basic procedures, such as assessing normal body functioning; measures of comfort, safety and hygiene; observing and recording; nutrition; pharmacology; and life-saving measures. This course includes requirements for certification in first aid and cardiopulmonary resuscitation. Class meets six hours a week.

NMS 2883 MENTAL HEALTH TECHNOLOGY

II 6CR

Prerequisite: NMH 8881. A broad overview of basic psychiatric concepts. Study of patterns of behavior commonly associated with mental illness is incorporated in the clinical practicum. The clinical practicum provides experience with young and adult psychiatric patients, the elderly, mental retardation and substance abuse. Class meets eleven hours a week.

NMH 7884 MENTAL HEALTH TECHNOLOGY

III 6CR

Prerequisite: 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 of adults as well as emergency social problems. The nursing care of adults with common physiological disorders and diseases is integrated in the course. Basic pharmacology and an introduction to drug administration are included. Class meets ten hours a week.

NMH 4885 MENTAL HEALTH TECHNOLOGY

IV 7CR

Prerequisite: NMH 7884. The focus is on nursing care of children and adolescents with emotional disorders and the diseases and physiological disorders common to them. Advanced pharmacology and clinical experience in the administration of drugs are integrated in the theory and clinical practicum. Specific treatment and principles are integrated in the clinical practicum which provides experience with children and adolescents. Class meets thirteen hours a week.





METAL FABRICATION

TMF 3462 ROBOTICS 2C

The basic concepts of operating and maintaining industrial robots will be covered. Operational topics covered in detail include: controlled path motion, control panel and teach pendant operations, teaching functions, commands. Maintenance topics such as hydraulics, control modules, interfacing and alignments will be covered. Two hours lecture/independent study. Spring, eight weeks.

TMF 3463 ROBOTIC APPLICATIONS 2C

Prerequisite: TMF 3462. Actual hands-on operation of industrial welding robots will be covered. Students will use industrial welding robots, positioning table, welding equipment and appropriate interfacing to program and weld actual parts. Four hours lecture/lab each week. Spring, eight weeks.

TMF 8016 TESTING AND INSPECTION . . . 3CR

This course is designed to acquaint students with the use of materials in technology. The course deals with materials; various applications; and how the materials perform under different load conditions and environmental characteristics. Also studied will be the size and shape of good designs; precision tool measurement; safety practices; and testing methods and procedures for various materials. One hour of lecture, six hours of lab each week.

TMF 8019 MIG AND TIG I 3CR

Prerequisite: TMF 8031. The theory of gas metal arc welding (GMAW) and gas tungsten arc welding (GTAW), also known as MIG and TIG, GTAW on mild steel, GTAW on aluminum and GMAW on steel are covered in this course. Application of processes include the use of welding symbols, blueprint reading and testing of welds. Six hours lecture/lab a week. Fall.

TMF 8020 MIG AND TIG II 3CR

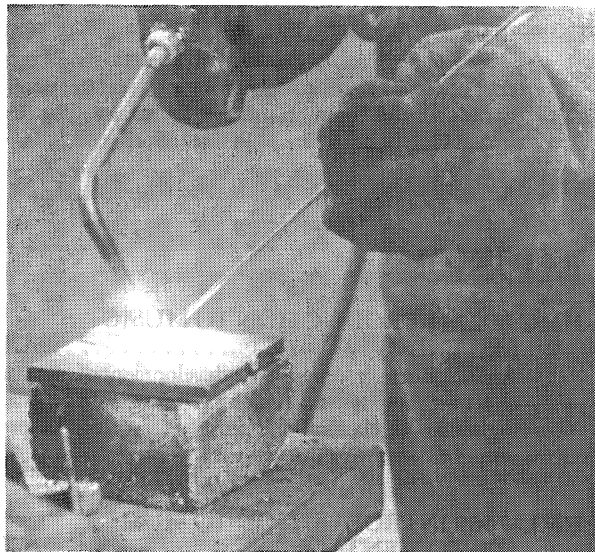
Prerequisite: TMF 8019. Course includes a review of the theory of GMAW and GTAW, GTAW on stainless steel, flux corded arc welding (FCAW) on steel, GMAW on aluminum and GMAW on steel. Six hours lecture/lab a week.

TMF 8021 V-BUTT ARC WELDING 3CR

Prerequisite: TMF 8031. Course includes the theory and practice of out-of-position oxy-fuel welding; oxy-fuel brazing; shielded metal arc welding (SMAW) of v-butt plate in five positions; basic air-arc cutting and gouging; and certification requirements with root and face bend tests being performed according to industry standards. Six hours lecture/lab a week.

TMF 8025 INTRODUCTION TO METAL FABRICATION 3CR

Students will have the opportunity to learn basic welding procedures, sheet metal work and other metal trades and how they interrelate to other technologies. A study of safety in the use and handling of material as well as its relationship and compatibility with other materials used in industry. Students will review various finish methods and applications. One hour of lecture, six hours of lab each week. Fall.



TMF 8031 INTRODUCTION TO WELDING . 3CR

A beginning course in oxy-fuel cutting, oxy-fuel welding and brazing, and shielded metal arc welding (SMAW). The SMAW portion will cover all positions but will be limited to fillet welds. All welds will be tested according to industry standards. Six hours lecture/lab a week. Spring.

TMF 8032 SHEET METAL PATTERN AND DEVELOPMENT 3CR

Prerequisite: EDT 7674. In this course students will use layouts they produce in EDT 7674 to produce actual sheet metal developments and will make layouts directly on the metal which is used to produce transition pieces and ductwork. One hour lecture, six hours lab each week. Fall.

TMF 8033 MANUFACTURING PROCESSES AND TESTING 3CR
 This course provides information on the various manufacturing materials, processes and testing procedures currently used in industry. Students will study the capabilities of the press shop, machine tool, general fabrication, welding processes, robotics, cut-off equipment and other manufacturing processes and equipment. Course includes a demonstration of both destructive and non-destructive methods of testing materials currently used in industry. Class meets for three hours lecture/demonstration each week. Fall.

TMF 8034 MACHINE TOOL PROCESSES I . . . 3CR
 Principles and practices of machining as well as set-up and operation of machines will be covered. Lab will include the use of lathes, mills, drills, cut-off and other types of equipment. One hour lecture, six hours lab each week. Fall.

TMF 8035 MACHINE TOOL PROCESSES II . . 3CR
Prerequisite: TMF 8034. Set-up and operation of machine tools will be covered. Included will be lathes, mills, drills, cut-off and other types of equipment. Students will be allowed to specialize on one or more machines. One hour lecture, six hours lab each week. Spring.

TMF 8036 METALLURGY 1CR
 Basic metallurgy course dealing with iron and steel. Properties of metals, types and classification, heat treatment procedures and common processes of steel will be discussed. One hour lecture each week. Spring.

MUSIC

HMU 8927 INTRODUCTION TO MUSIC LISTENING 3CR
 An introductory survey of the development of music as an art with emphasis on listening. Recorded music including medieval, classical and contemporary will be presented. Class meets three hours a week.

HMU 7669 INTRODUCTION TO MUSIC FUNDAMENTALS 2CR
 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.

HMU 2777 INTRODUCTION TO JAZZ LISTENING 3CR
 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.

HMU 7656 SIGHT-SINGING AND EAR TRAINING I 2CR
 Course presents the melodic, harmonic and rhythmic elements of music by integrating aural and sight-reading skills. Class meets two hours a week.

HMU 5107 SIGHT-SINGING AND EAR TRAINING II 2CR
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.

HMU 3628 SIGHT-SINGING AND EAR TRAINING III 2CR
Prerequisite: HMU 5107. Continued advanced study of the melodic, harmonic and rhythmic elements. Class meets two hours a week.

HMU 7563 SIGHT-SINGING AND EAR TRAINING IV 2CR
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.

HMU 5010 MUSIC THEORY: HARMONY I . . 2CR
 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.

HMU 3559 MUSIC THEORY: HARMONY II . 2CR
Prerequisite: HMU 5010. Continuation of work with melodic line, triads and connection of chords in four-part music writing. Emphasis on inverted triads and submediate triads. Introduction to elementary modulation. Class meets two hours a week.

HMU 6014 MUSIC THEORY: HARMONY III . 2CR
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.

HMU 2270 MUSIC THEORY: HARMONY IV . 2CR
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.



HMU 9028 MIXED VOCAL ENSEMBLE I. . . . 1CR

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

HMU 9029 MIXED VOCAL ENSEMBLE II. . . . 1CR

Prerequisite: HMU 9028. Continuation of *Mixed Vocal Ensemble I*. Class meets three hours a week.

HMU 9030 MIXED VOCAL ENSEMBLE III. . . . 1CR

Prerequisite: HMU 9029. Continuation of *Mixed Vocal Ensemble II*. Class meets three hours a week.

HMU 9031 MIXED VOCAL ENSEMBLE IV. . . . 1CR

Prerequisite: HMU 9030. Continuation of *Mixed Vocal Ensemble III*. Class meets three hours a week.

HMU 6529 CHAMBER CHOIR I. 1CR

Prerequisite: *By audition*. Rehearsal and performance of vocal music. Choir performs at various student and community activities. Class meets three hours a week.

HMU 2305 CHAMBER CHOIR II. 1CR

Prerequisite: HMU 6529. Continuation of *Chamber Choir I*. Class meets three hours a week.

HMU 7542 CHAMBER CHOIR III. 1CR

Prerequisite: HMU 2305. Continuation of *Chamber Choir II*. Class meets three hours a week.

HMU 1208 CHAMBER CHOIR IV. 1CR

Prerequisite: HMU 7542. Continuation of *Chamber Choir III*. Class meets three hours a week.

HMU 6410 STUDENT JAZZ ENSEMBLE I. . . . 2CR

Prerequisite: *By audition*. Performances of jazz and popular music at public concerts and College functions. Class meets six hours a week.

HMU 6411 STUDENT JAZZ ENSEMBLE II. . . . 2CR

Prerequisite: *By audition*. Continued performance of jazz and popular music at public concerts and College functions. Class meets six hours a week.

HMU 6412 STUDENT JAZZ ENSEMBLE III. . . 2CR

Prerequisite: *By audition*. Continued performances of jazz and popular music at public concerts and College functions. Class meets six hours a week.

HMU 6413 STUDENT JAZZ ENSEMBLE IV. . . 2CR

Prerequisite: *By audition*. Continued performance of jazz and popular music at public concerts and College functions. Class meets six hours a week.

HMU 2262 JAZZ IMPROVISATION I. 2CR

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.



HMU 1245 JAZZ IMPROVISATION II. 2CR

Prerequisite: HMU 2262. 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.

HMU 8008 BAND I. 1CR

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.

HMU 8009 BAND II. 1CR

Prerequisite: HMU 8008 or *by permission*. Continuation of *Band I*. Class meets three hours a week.

HMU 8010 BAND III. 1CR

Prerequisite: HMU 8009 or *by permission*. Continuation of *Band II*. Class meets three hours a week.

HMU 8011 BAND IV. 1CR

Prerequisite: HMU 8010 or *by permission*. Continuation of *Band III*. Class meets three hours a week.

HMU 3671 ORCHESTRA I. 1CR

Prerequisite: *By audition*. Rehearse and perform with the Overland Park Civic Orchestra. Class meets one evening a week for two hours.

HMU 1374 ORCHESTRA II. 1CR

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

HMU 1049 ORCHESTRA III. 1CR

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

HMU 2534 ORCHESTRA IV. 1CR

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



HMU 3146 CHAMBER ENSEMBLE I 1CR

Prerequisite: High school playing experience or equivalent.
The study and performance of standard literature for ensembles: brass, woodwind, jazz combo and percussion. Class meets two hours a week.

HMU 4166 CHAMBER ENSEMBLE II 1CR

Prerequisite: HMU 3146. Continued study and performance of standard literature for ensembles: brass, woodwind, jazz combo and percussion. Class meets two hours a week.

HMU 5202 CHAMBER ENSEMBLE III 1CR

Prerequisite: HMU 4166. Continued study and performance of standard literature for ensembles: brass, woodwind, jazz combo and percussion. Class meets two hours a week.

HMU 6213 CHAMBER ENSEMBLE IV 1CR

Prerequisite: HMU 5202. Continued study and performance of standard literature for ensembles: brass, woodwind, jazz combo and percussion. Class meets two hours a week.

HMU 1763 APPLIED VOICE I (CLASS) 1CR

Class instruction with emphasis on learning to sing from the beginning stages. Class meets one hour a week.

HMU 2764 APPLIED VOICE II (CLASS) 1CR

Prerequisite: HMU 1763.

HMU 4765 APPLIED VOICE III (CLASS) 1CR

Prerequisite: HMU 2764.

HMU 5766 APPLIED VOICE IV (CLASS) 1CR

Prerequisite: HMU 4765.

HMU 3779 APPLIED VOICE I (PRIVATE) 1CR

Private instruction in vocal music. Lesson time by arrangement, one-half hour a week.

HMU 5780 APPLIED VOICE II (PRIVATE) 1CR

Prerequisite: HMU 3779.

HMU 6781 APPLIED VOICE III (PRIVATE) 1CR

Prerequisite: HMU 5780.

HMU 4782 APPLIED VOICE IV (PRIVATE) 1CR

Prerequisite: HMU 6781.

HMU 7759 APPLIED WOODWIND I (CLASS) . . . 1CR

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.

HMU 8760 APPLIED WOODWIND II (CLASS) . . 1CR

Prerequisite: HMU 7759.

HMU 2761 APPLIED WOODWIND III (CLASS) . 1CR

Prerequisite: HMU 8760.

HMU 5762 APPLIED WOODWIND IV (CLASS) . 1CR

Prerequisite: HMU 2761.

HMU 2775 APPLIED WOODWIND I (PRIVATE) 1CR

Private instruction on a woodwind instrument of the student's choice. Lesson time by arrangement, one-half hour a week.

HMU 8776 APPLIED WOODWIND II (PRIVATE) 1CR

Prerequisite: HMU 2775.

HMU 7777 APPLIED WOODWIND III (PRIVATE) 1CR

Prerequisite: HMU 8776.

HMU 1778 APPLIED WOODWIND IV (PRIVATE) 1CR

Prerequisite: HMU 7777.

HMU 4771 APPLIED GUITAR I (CLASS) 1CR

Class instruction with emphasis on learning to play the guitar from the beginning stages. Class meets one hour a week.

HMU 2772 APPLIED GUITAR II (CLASS) 1CR

Prerequisite: HMU 4771.

HMU 1773 APPLIED GUITAR III (CLASS) 1CR

Prerequisite: HMU 2772.

HMU 5774 APPLIED GUITAR IV (CLASS) 1CR

Prerequisite: HMU 1773.

HMU 6787 APPLIED GUITAR I (PRIVATE) . . . 1CR

Private instruction on guitar. Lesson time by arrangement, one-half hour a week.

HMU 1788 APPLIED GUITAR II (PRIVATE) . . 1CR

Prerequisite: HMU 6787.

HMU 6789 APPLIED GUITAR III (PRIVATE) . . 1CR

Prerequisite: HMU 1788.

HMU 5790 APPLIED GUITAR IV (PRIVATE) . . 1CR

Prerequisite: HMU 6789.

HMU 1791 APPLIED CLASSICAL GUITAR I (PRIVATE)1CR
Private instruction on classical guitar. Lesson time by arrangement, one-half hour a week.

HMU 3792 APPLIED CLASSICAL GUITAR II (PRIVATE)1CR
Prerequisite: HMU 1791.

HMU 1793 APPLIED CLASSICAL GUITAR III (PRIVATE)1CR
Prerequisite: HMU 3792.

HMU 2794 APPLIED CLASSICAL GUITAR IV (PRIVATE)1CR
Prerequisite: HMU 1793.

HMU 8767 APPLIED PIANO I (CLASS)1CR
Class instruction with emphasis on learning to play the piano from the early stages. Classes meet one hour a week.

HMU 4768 APPLIED PIANO II (CLASS)1CR
Prerequisite: HMU 8767.

HMU 8769 APPLIED PIANO III (CLASS)1CR
Prerequisite: HMU 4768.

HMU 5770 APPLIED PIANO IV (CLASS)1CR
Prerequisite: HMU 8769.

HMU 6783 APPLIED PIANO I (PRIVATE)1CR
Private instruction on piano. Lesson time by arrangement, one-half hour a week.

HMU 1784 APPLIED PIANO II (PRIVATE)1CR
Prerequisite: HMU 6783.

HMU 4785 APPLIED PIANO III (PRIVATE)1CR
Prerequisite: HMU 1784.

HMU 8786 APPLIED PIANO IV (PRIVATE)1CR
Prerequisite: HMU 4785.

HMU 1799 APPLIED PERCUSSION I (PRIVATE)1CR
Private instruction on percussion instrument of student's choice. Lesson time by arrangement, one-half hour a week.

HMU 6800 APPLIED PERCUSSION II (PRIVATE)1CR
Prerequisite: HMU 1799.



HMU 4801 APPLIED PERCUSSION III (PRIVATE)1CR
Prerequisite: HMU 6800.

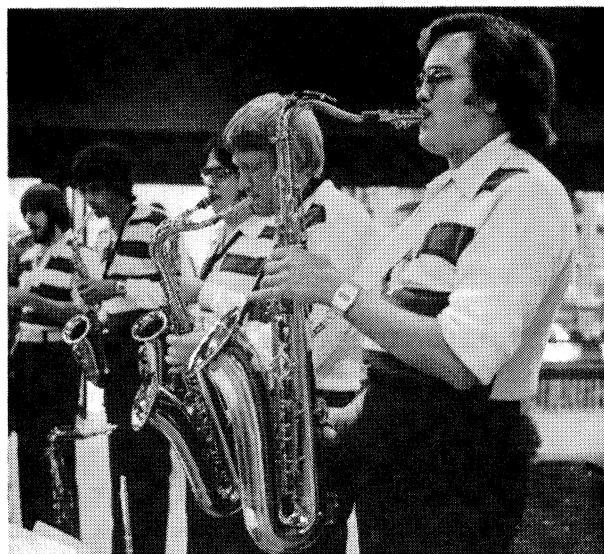
HMU 1802 APPLIED PERCUSSION IV (PRIVATE)1CR
Prerequisite: HMU 4801.

HMU 5795 APPLIED BRASS I (PRIVATE)1CR
Private instruction on a brass instrument of the student's choice. Lesson time by arrangement, one-half hour a week.

HMU 7796 APPLIED BRASS II (PRIVATE)1CR
Prerequisite: HMU 5795.

HMU 9797 APPLIED BRASS III (PRIVATE)1CR
Prerequisite: HMU 7796.

HMU 6798 APPLIED BRASS IV (PRIVATE)1CR
Prerequisite: HMU 9797.



NURSING

NRN 8846 NURSING CARE OF THE INDIVIDUAL: CONCEPTS OF HEALTH8CR

Prerequisite: Admission to the nursing program. *Co-requisites:* NLS 1128 and SS 1068. This is the first of four sequential courses and will serve as an introduction to nursing with emphasis on the maintenance of homeostasis in individuals of various age groups. This course furnishes the concepts and skills needed to provide basic nursing care and provides a foundation for subsequent nursing courses. Four hours of class and twelve hours of lab a week. Fall.



NRN 3131 NURSING CARE OF THE INDIVIDUAL: ADAPTATION TO CHANGE 8CR

Prerequisite: NRN 8846. *Corequisites:* NLS 1144 and SS 3546. This is the second of four sequential nursing courses and provides an opportunity for students to explore the impact of altered homeostasis on the individual and family. This 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.

NRN 2847 NURSING CARE OF THE INDIVIDUAL: SHORT-TERM HEALTH PROBLEMS. . . 9CR

Prerequisites: NRN 3131 and SS 3546. The third in a sequence of four courses 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.

NRN 5848 NURSING CARE OF THE INDIVIDUAL: LONG-TERM HEALTH PROBLEMS. 9CR

Prerequisite: NRN 2847. The fourth in a sequence of four nursing courses focuses on the individual whose optimum state of well-being has been altered by chronic, progressive, disruptive problems which require implementation of the nursing process. Emphasis is on the concept of rehabilitation, adaptation to a permanently altered lifestyle and the development and/or reestablishment of independence. The role of the AD graduate seeking employment in the community is stressed. Four hours of class and fifteen hours of clinical lab a week. Spring.

NRN 3655 LPN-RN TRANSITION COURSE. 8CR

Prerequisite: Licensing as Vocational Practical Nurse. Admission with advanced standing to Nursing Program. An orientation to the Associate Degree Nursing Program philosophy

and criteria for LPNs seeking advanced standing. The course focuses on group process, relationships, the role of the AD graduate, communication skills and nursing process. Individual assessment and assistance is emphasized. Class meets twenty-four hours a week for six weeks.

NRN 9732 NAACOG CERTIFICATION PREPARATION 2CR

Prerequisites: 1) current licensure as an RN in the U.S. or Canada; 2) verification of two years experience as an RN in inpatient obstetric nursing; 3) documentation of employment in the inpatient obstetric nursing field on either a full-time or part-time basis within the last 24 months. Prepares the registered nurse with two years of clinical experience in obstetric-gynecology area for credentialing by the Nurses Association of the American College of Obstetricians and Gynecologists (NAACOG). Class meets two hours a week. Not offered every year.

PARALEGAL

BPL 9739 INTRODUCTION TO PARALEGALISM 3CR

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.



BPL 7740 LEGAL RESEARCH AND WRITING . 3CR

Prerequisite: BPL 9739 or concurrent enrollment or permission of division director. 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.

BPL 2184 BUSINESS ORGANIZATIONS I 3CR

Prerequisite: BPL 9739 or permission of division director. The study of the legal aspects 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.



BPL 3320 BUSINESS ORGANIZATIONS II 3CR

Prerequisite: BPL 2184 or permission of division director. 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.

BPL 2828 REAL ESTATE LAW I 3CR

Prerequisite: BPL 9739 or permission of division director. Study of the law of real property and 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.

BPL 6090 REAL ESTATE LAW II 3CR

Prerequisite: BPL 2828 or permission of division director. 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.

BPL 7826 WILLS, TRUSTS AND PROBATE ADMINISTRATION 3CR

Prerequisite: BPL 9739 or permission of division director. 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.

BPL 2218 ESTATE PLANNING 3CR

Prerequisite: BPL 7826 or permission of division director. 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.

BPL 7917 LITIGATION I 3CR

Prerequisite: BPL 9739 and BPL 7740 or permission of division director. 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.

BPL 8940 LITIGATION II 3CR

Prerequisite: BPL 7917 or permission of division director. 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.

BPL 1910 FAMILY LAW 3CR

Prerequisite: BPL 9739 or permission of division director. 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.

BPL 2175 LAW OFFICE SYSTEMS 3CR

Prerequisite: BPL 9739 or permission of division director. 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.

BPL 9918 COMMERCIAL TRANSACTIONS . . . 3CR

Prerequisite: BPL 9739 or permission of division director. 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.

BPL 4036 RETIREMENT PLANS—QUALIFICATIONS AND ADMINISTRATION 1CR
Prerequisites: BPL 2184, BPL 3866 or BPL 3867 or permission of division director. Study of qualified retirement plans with emphasis on their design, fundings and operation. Course will include the preparation of documents necessary for qualification, administration and termination. Also will discuss related retirement plans such as KEOGH and IRAs. Class meets three times, five hours each session.

BPL 3867 SEMINAR: LEGAL INTERVIEWING AND INVESTIGATION 2-3CR
Prerequisites: BPL 9739 and at least nine credits in other paralegal courses. Work experience in an approved training situation under instructional supervision. Designed to provide practical experiences 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.

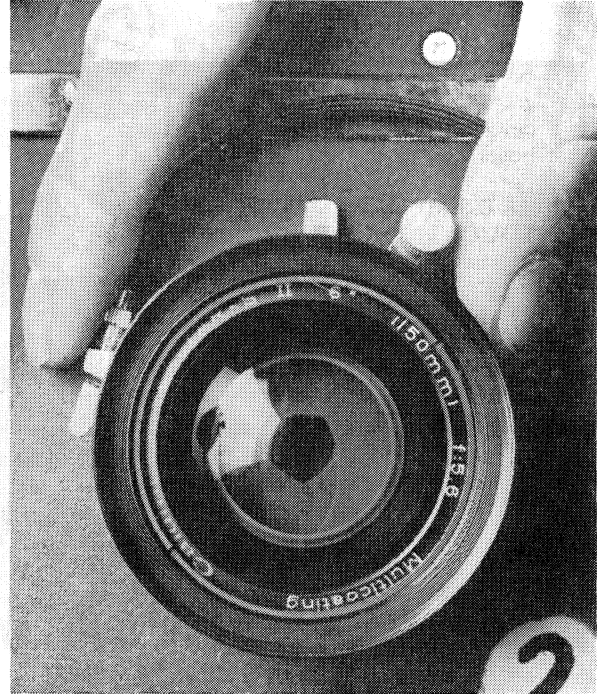
BPL 3866 SEMINAR: WORKERS' COMPENSATION AND BANKRUPTCY 2-3CR
Prerequisites: BPL 9739 and at least nine credits in other paralegal courses. Work experience in an approved training situation under instructional supervision. Designed to provide practical experience in the use of skills acquired in prerequisite courses. Classroom emphasis on the use of forms and procedures in the areas of bankruptcy and workers' compensation. A minimum of fifteen hours on-the-job training a week by arrangement. Class meets two hours a week.

PHOTOGRAPHY

HPH 5555 PHOTOGRAPHY I 3CR
 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 classroom lecture/critique and three hours of instructor-supervised lab/demonstration each week.

HPH 6666 PHOTOGRAPHY II 3CR
Prerequisite: HPH 5555. Emphasis will be on the development of professional standards of photographic technique and image quality. Topics include exposure and development control using the "zone system," natural light photography, advanced darkroom techniques, chemistry and toning. Also, introduction to basic view camera techniques. Class meets for three hours of classroom lecture/critique and three hours of instructor-supervised lab/demonstration each week.

HPH 3880 PHOTOGRAPHY III 3CR
Prerequisite: HPH 5555. Emphasis on commercial and other forms of applied photography. Includes view camera techniques and lighting techniques with the emphasis on studio lighting, portrait, advertising, illustration and journalistic photography. Also includes an introduction to color transparency processing. Class meets for three hours of classroom lecture/demonstration and three hours of instructor-supervised lab/studio each week.



HPH 5481 COLOR TRANSPARENCIES 2CR
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.

HPH 4009 HISTORY OF PHOTOGRAPHY . . . 3CR
 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. Class meets three hours a week.

HPH 3417 ISSUES IN CONTEMPORARY PHOTOGRAPHY 3CR
Prerequisite: HPH 4009. Here is a survey of current photography as it relates to the broader aspects of modern culture and thought. Discussion will cover important contemporary photographers, new color photography, recent criticism and photography's relation to the art world. Class meets three hours a week.

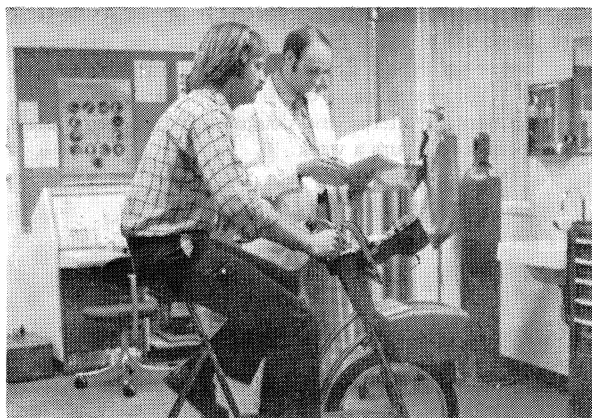
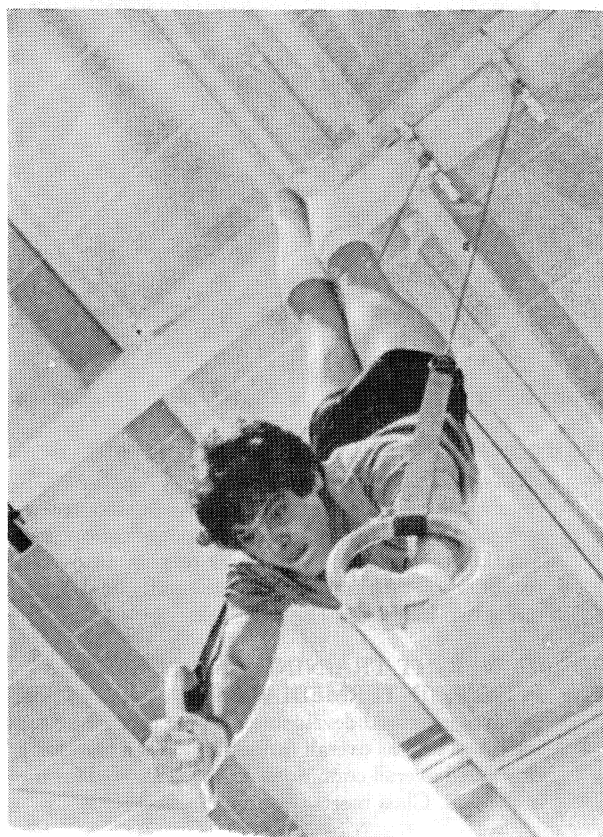
PHYSICAL DEVELOPMENT

PD 6340 INTRODUCTION TO PHYSICAL EDUCATION3CR
Principles of physical education, history, philosophy, theory and practice. Class meets three hours a week.

PD 4055 CONCEPTS IN PHYSICAL DEVELOPMENT3CR
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.

PD 1028 ELEMENTARY PHYSICAL EDUCATION3CR
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.

PD 4291 INDIVIDUAL LIFETIME SPORTS2CR
Group instruction and practical experience in badminton, racquetball, golf and tennis. Emphasis on planning and organization of these lifetime sports in a recreation setting. Class meets three hours a week.



PD 4368 PERSONAL HEALTH AND COMMUNITY HYGIENE3CR
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.

PD 2711 FIRST AID3CR
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.

PD 4342 CARE AND PREVENTION OF ATHLETIC INJURY3CR
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.

PD 4146 FUNDAMENTALS OF ATHLETICS . . .2CR
Course covers the importance of sport in society; issues brought up in sport; career opportunities in the field of sports. Class meets three hours a week.

PD 1153 FUNDAMENTALS OF BASKETBALL .2CR
Fundamentals of offensive and defensive basketball, individual and team play, and strategy and rules. Class meets three hours a week.

PD 1727 FUNDAMENTALS OF BASEBALL (BEGINNING)3CR
Introduction to the fundamental skills of baseball for the prospective player, coach or spectator. Class meets five hours a week.

PD 4735 FUNDAMENTALS OF BASEBALL (INTERMEDIATE)3CR
Intermediate fundamental skills of baseball for the prospective player, coach or spectator. Class meets five hours a week in gymnasium or baseball field.

PD 1723 FUNDAMENTALS OF POWER VOLLEYBALL (BEGINNING) 1CR
 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.



PD 6736 FUNDAMENTALS OF POWER VOLLEYBALL (INTERMEDIATE) 1CR
 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.

PD 7168 FALL SPORTS OFFICIATING 2CR
 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.

PD 6061 SPRING SPORTS OFFICIATING 2CR
 Knowledge and interpretation of the rules governing basketball and baseball. Helpful to spectators as well as officials. Class meets three hours a week.

PD 1472 PHYSICAL DEVELOPMENT 1CR
 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.

PD 1829 RUNNING AWARENESS AND EXERCISE 1CR
 Designed to fulfill students' need to exercise and improve their cardiovascular fitness. The course will cover proper mechanics for running and training; exercise benefits; various fitness programs; warm-up; and cool-down. Class meets two hours a week.

PD 1058 PHYSICAL FITNESS THROUGH DANCE (BEGINNING) 1CR
 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. Class meets two hours a week.

PD 4296 PHYSICAL FITNESS THROUGH DANCE (INTERMEDIATE) 1CR
 An intermediate modern dance course for the student who wants to continue learning from *Beginning Physical Fitness Through Dance*. Students will learn longer and more difficult combinations as they gain muscular control and strength. Class meets two hours a week.

PD 7279 KARATE (BEGINNING) 1CR
 Introduction to the fundamentals of karate, including history, basic punches, blocks, kicks and self-defense techniques. Class meets two hours a week.

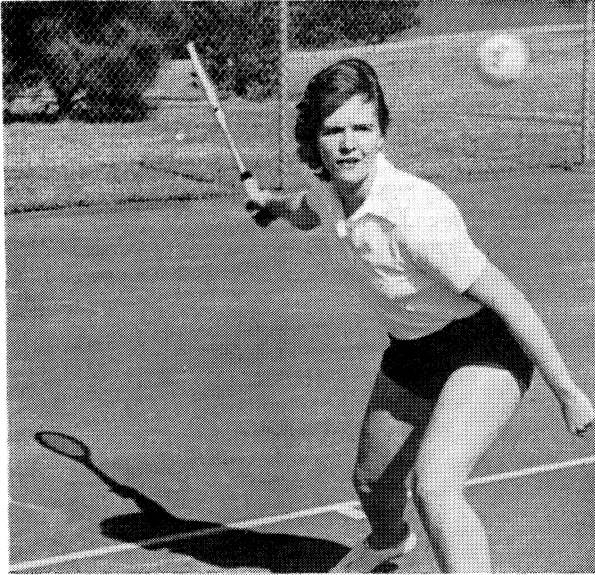
PD 2728 KARATE (INTERMEDIATE) 1CR
 After learning the formalities and basics in the beginner class, the student puts the basic techniques into routines. The class also covers combination techniques and defense techniques. Class meets two hours a week.

PD 6499 FENCING 1CR
 Individualized instruction of rules, fundamentals and history of the sport. Class meets two hours a week.



PD 1020 WEIGHT TRAINING AND PHYSICAL FITNESS (BEGINNING) 1CR
 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.

PD 1025 WEIGHT TRAINING AND PHYSICAL FITNESS (INTERMEDIATE) 1CR
 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.



PD 1010 RACQUETBALL (BEGINNING) 1CR

A brief history of rules and terminology of racquetball followed by instruction and practice in fundamentals. Class meets two hours a week.

PD 1016 RACQUETBALL (INTERMEDIATE) . . 1CR

Introduction to advanced skills and the strategy of the game of racquetball and various patterns of plays. Class meets two hours a week.

PD 3235 GOLF 1CR

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.

PD 1008 BOWLING (BEGINNING) 1CR

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.

PD 1009 BOWLING (INTERMEDIATE) 1CR

Introduction to advanced skills of league bowling and a review of the terminology, etiquette and scoring of bowling. Class meets two hours a week.

PD 7129 ARCHERY 1CR

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.

PD 4536 GYMNASTICS 1CR

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.

PD 4257 WRESTLING 1CR

Individualized instruction of rules, fundamentals and history of the sport. Practice area scheduled by arrangement.

PD 1012 SOCCER 1CR

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.

PD 1017 TENNIS (BEGINNING) 1CR

Individualized instruction of rules, fundamentals and history of the sport. Class meets two hours a week.

PD 1018 TENNIS (INTERMEDIATE) 1CR

Designed to improve the fundamental skills of tennis and introduce the student to various patterns of play. Class meets two hours a week.

PD 1026 CHEERLEADING (BEGINNING) . . . 1CR

Basic instruction in the fundamentals of cheerleading. Includes working together, learning timeout cheers, chants for sideline cheers, and pom pom routines. Cheerleaders represent the College in community activities. Class meets for four hours a week from September to March.

PD 1027 CHEERLEADING (INTERMEDIATE) . 1CR

Prerequisite: PD 1026. Additional responsibilities include making up original cheers and presenting them to the group. Students also will work closely with the instructor in planning and coordinating activities. Class meets four hours a week from September to March.

PD 2655 BALLET (BEGINNING) 1CR

Introduction to the fundamentals of ballet. Attention given to terminology, skills and participation. Class meets two hours a week.

PD 7165 BALLET (INTERMEDIATE) 1CR

Prerequisite: PD 2655 or equivalent. Continuation of Beginning Ballet. Attention given to terminology, more advanced skills and participation. Class meets two hours a week.

PD 1380 RHYTHMIC AEROBICS (BEGINNING) 1CR

Exercise program of choreographed routines combining motor skills, jogging and dance steps. These exercise routines improve muscle tone and cardiovascular fitness. Class/lab meets two hours a week.

PD 1440 RHYTHMIC AEROBICS (INTERMEDIATE) 1CR

Exercise program of choreographed routines combining motor skills, jogging and dance steps, done at a higher pace and for a longer period of time than in Rhythmic Aerobics. Exercise routines are vigorous, challenging and fun and should improve muscle tone and cardiovascular fitness. One hour of lecture and one hour of lab each week.

PD 5117 ICE-SKATING (BEGINNING) 1CR

The course is designed to teach the fundamental skills and techniques of ice-skating. Class will meet two lab hours each week.

PHYSICAL SCIENCE

NPS 1031 PHYSICAL SCIENCE 4CR

Fundamental concepts and principles of physics, chemistry, astronomy and geology 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 two to six hours of modularly-scheduled lab activity each.

NPS 6070 ASTRONOMY 4CR

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 planets. Class meets four hours a week plus five nighttime telescope sessions scheduled as weather permits.

NPS 4858 GENERAL GEOLOGY 5CR

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.

NPS 6634 PRINCIPLES OF CHEMISTRY . . . 5CR

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 seven hours a week.

NPS 2650 PRINCIPLES OF ORGANIC CHEMISTRY 5CR

Prerequisite: NPS 6634 or NPS 4455. Organic chemistry with emphasis on biochemical applications. Functional group reactions lead into carbohydrates, proteins, lipids and other biochemical topics. Four hours lecture and three hours laboratory each week.

NPS 4515 GENERAL CHEMISTRY I LECTURE 4CR

Prerequisite: Concurrent enrollment in MTH 6079 or equivalent high school math and concurrent enrollment in NPS 4516. 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. Class meets four hours a week.

NPS 4516 GENERAL CHEMISTRY I LAB . . . 1CR

Prerequisite: Concurrent enrollment in NPS 4515. The student's understanding of bonding concepts, solutions, gas laws and stoichiometry will be enhanced by laboratory experiments. Class meets three hours a week.

NPS 4455 GENERAL CHEMISTRY II LECTURE 4CR

Prerequisites: MTH 6079, NPS 4515, NPS 4516 and enrollment in NPS 4456. A continuation of NPS 4515 to include topics such as kinetics, acid-base chemistry, equilibrium, chemical thermodynamics and electro-chemistry. Class meets four hours a week.

NPS 4456 GENERAL CHEMISTRY II LAB . . . 1CR

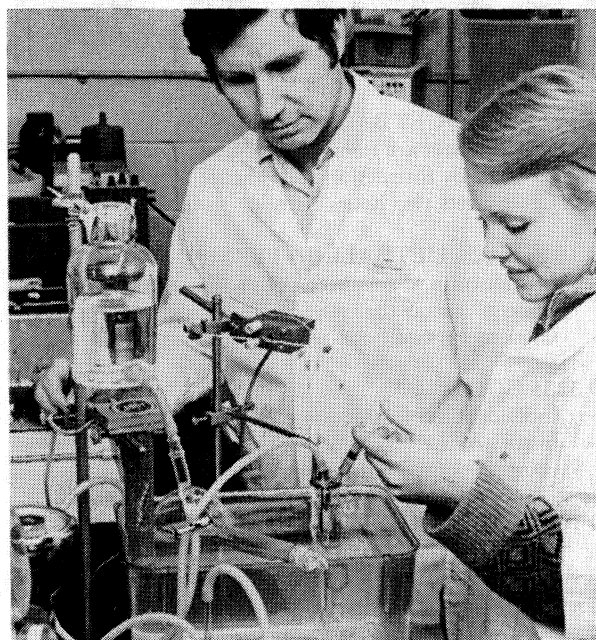
Prerequisite: NPS 4516 and concurrent enrollment in NPS 4455. The laboratory consists of experiments supportive to General Chemistry II lecture with emphasis on quantitative techniques. Class meets three hours a week.

NPS 2637 ORGANIC CHEMISTRY I 5CR

Prerequisites: NPS 4455 and NPS 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.

NPS 3657 ORGANIC CHEMISTRY II 5CR

Prerequisite: NPS 2637. Continuation of Organic Chemistry I. Includes an introduction to organic qualitative analysis. Class meets nine hours a week. Spring.



NPS 5213 GENERAL PHYSICS I 5CR

Prerequisite: MTH 6079 or equivalent. Introductory survey of selected topics in physics including motion, energy, matter, thermodynamics and wave motion. Class meets four hours of lecture and three hours of lab each week. Fall.

NPS 3309 GENERAL PHYSICS II 5CR

Prerequisite: NPS 5213. Continuation of General Physics I. Subjects include electricity and magnetism, light, atomic and nuclear structure, quantum theory, relativity and particle physics. Class meets for four hours of lecture and three hours of lab each week.

NPS 5212 ENGINEERING PHYSICS I 5CR

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.



tal 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.

NPS 5238 ENGINEERING PHYSICS II. 5CR
Prerequisite: NPS 5212. 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.

NPS 5537 INTRODUCTION TO QUANTITATIVE ANALYSIS 5CR
Prerequisites: NPS 4515 and NPS 4516. An introduction to concepts of acid-base, chromatography, coulometry, equilibrium, oxidation-reduction and spectro-photometry 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.

NPS 3084 SCIENCE PROBLEMS ON THE COMPUTER 2CR
Prerequisites: Completion of at least one college-level physical science or life science course. Course covers elementary skills in programming a micro-computer using BASIC language. Techniques are developed for solving various science problems on the computer. Various "output" will be studied in relation to specific needs. One hour lecture, two hours lab each week.

PHYSICAL THERAPY

NPT 9770 INTRODUCTION TO PHYSICAL THERAPY 2CR
Prerequisite: Pre-enrollment interview with program coordinator. 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.

NPT 8847 FUNDAMENTALS OF MODALITIES I 3CR
Prerequisite: NPT 9770. The student will study basic medical terminology, description of modalities and therapeutic measures used in the physical treatment of various injuries and diseases. Emphasis on departmen-

NPT 9772 KINESIOLOGY 4CR
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.

NPT 9774 REHABILITATION 4CR
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.

NPT 9776 CLINICAL PATHOLOGY 3CR
Corequisites: NPT 9774, NPT 9775, NPT 9777, NPT 9778. The study of general pathology with detailed emphasis on diseases and disease processes. Three hours of lecture a week.

NPT 8848 FUNDAMENTALS OF MODALITIES II 5CR
Prerequisite: NPT 9771. Introduction 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.

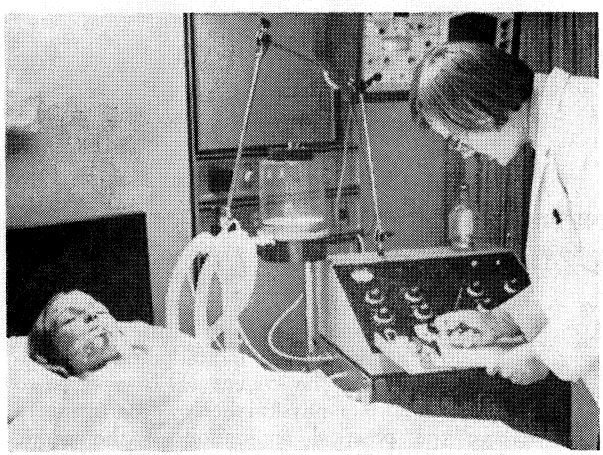
NPT 9775 THERAPEUTIC EXERCISE 5CR
Corequisites: NPT 9776, NPT 9777, NPT 9778. The student will be introduced to the theory and principles underlying the use of mechanical appliances and equipment, shoulder wheels, pulleys, traction and exercise devices applicable to various disabilities. Emphasis will be placed on techniques of muscle re-education and sensory stimulation, safety precautions, indications and contraindications for exercise as a treatment technique. Three hours of lecture and four hours of lab a week.

NPT 9777 CLINICAL EXPERIENCE I 3CR
Prerequisites: NPT 9773 and concurrent enrollment in NPT 9775, NPT 9776. 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.

NPT 9779 CLINICAL EXPERIENCE II. 11CR
Prerequisites: NPT 9774, NPT 9775, NPT 9777, NPT 9778.
 The student will review practical application of principles learned in the prior didactic semesters. The student also will 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.

NPT 9778 CLINICAL SEMINAR I 1CR
Corequisites: NPT 9775, NPT 9776. The student will participate in discussions conducted by the program coordinator to evaluate the experience and progress of the participants in NPT 9777. One hour of lecture a week.

NPT 9780 CLINICAL SEMINAR II 2CR
Corequisite: 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.



RADIOLOGY

NRD 9801 MEDICAL AND RADIOLOGY TERMS 3CR
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.

NRD 9802 RADIOLOGIC TECHNOLOGY I. . 3CR
Prerequisite: Admission to the program. Study of radiation biology, radiation protection and monitoring, professional attitudes and applied medical ethics. Major emphasis will be on emergency procedures related to patient care in the radiology department. Class meets three hours a week.

NRD 9810 RADIOLOGIC TECHNOLOGY II. 3CR
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.

NRD 9803 RADIOGRAPHIC EXPOSURES I. 3CR
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.

NRD 9806 RADIOGRAPHIC EXPOSURES II. 3CR
Prerequisite: NRD 9803. Covers quality control of radiographic images, technique 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.

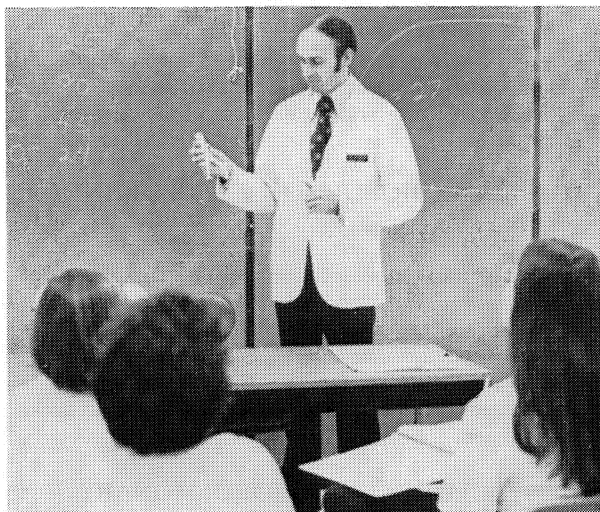
NRD 9811 PHYSICS OF X-RAY EQUIPMENT. 4CR
Prerequisites: NPS 1031, NRD 9803, NRD 9806. Application of physics principles to the study of x-ray equipment and other diagnostic imaging devices used in the modern x-ray department. Class meets five hours a week.

NRD 9804 RADIOGRAPHIC POSITIONING I. 3CR
Prerequisite: Admission to the program. Study of anatomy and positioning for the abdomen, chest, upper and lower extremities, upper gastrointestinal track, colon, gall bladder/biliary and kidney studies. Class meets four hours a week.

NRD 9808 RADIOGRAPHIC POSITIONING II. 3CR
Prerequisite: NRD 9804. Covers anatomy and positioning related to the upper and lower extremities, the vertebral column and thorax and includes mammography. Class meets four hours a week.

NRD 9809 RADIOGRAPHIC POSITIONING III. 3CR
Prerequisite: NRD 9808. Course covers anatomy and positioning for the skull, sinuses, facial bones and teeth. Emphasis is on special views of the skull. In addition the student will study methods of positioning the trauma patient.





NRD 8012 SPECIAL PROCEDURES 3CR

Prerequisites: NLS 6186, NRD 9804, NRD 9808, NRD 9809. 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.

NRD 9805 CLINICAL TRAINING I 2CR

Prerequisite: Admission to the program. The student will receive training in performing basic radiographic examinations and related tasks. The student must demonstrate the ability to perform six examinations unassisted by the end of the term. Class meets for an average of 20 hours each week.

NRD 9807 CLINICAL TRAINING II 2CR

Prerequisites: NRD 9801, NRD 9802, NRD 9803, NRD 9804, NRD 9805. The student will receive training in performing examinations of the upper extremities, lower extremities, cervical, thoracic and lumbar spine, ribs, skull and mammographic exams. The student must demonstrate the ability to perform six examinations unassisted by the end of the term. Class meets an average of 20 hours a week.

NRD 9815 CLINICAL TRAINING III 1CR

Prerequisites: NRD 9806, NRD 9807, NRD 9808. Continued training in performing examinations of the ribs, cervical, thoracic and lumbar spine, gall bladder, biliary system and retrograde pyelograms and infusion pyelograms using tomography. Students will be assigned to evening training experiences during the summer months. Class meets an average of 24 hours a week.

NRD 9816 CLINICAL TRAINING IV 2CR

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. Students will be expected to perform all exams they have previously proven competence in with limited supervision. The student must demonstrate the ability to perform six new exams by the end of the term. Class meets an average of 20 hours a week.

NRD 9817 CLINICAL TRAINING V 2CR

Prerequisite: NRD 9809, NRD 9816. The student will be assigned training experiences in areas of training need. The student will be expected to perform most department routine examinations under limited supervision. Students will work on areas of deficiency and will demonstrate progress in clinical skills. The student will begin to complete rotation through specialty areas. Class meets 20 hours a week.

NRD 9818 CLINICAL TRAINING VI 1CR

Prerequisites: NRD 9810, NRD 9811, NRD 9817. Students will be assigned training in areas of need and will be evaluated on their rotation specialty areas. Class meets 24 hours a week.

NRD 9819 CLINICAL TRAINING VII 3CR

Prerequisites: NRD 9813, NRD 8012, NRD 9818. The student will complete evaluations for exams and skills that have not previously been completed. Students will be making final preparations to enter the profession as a registered technologist. Assignment will be made to all areas of the department on a rotational basis. Class meets 39 hours a week.

NRD 9813 DEPARTMENT SEMINAR 3CR

Prerequisites: NRD 9810, NRD 9811, NRD 8012, NRD 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.

NRD 9820 SPECIALTY TRAINING (ELECTIVE)

. 9CR
Prerequisite: Permission of the division director. Additional training in one of the following fields: nuclear medicine, ultrasound, radiation therapy, thermography or computer-assisted tomography or management/supervisor. Class meets 19 hours a week.

RECREATIONAL LEADERSHIP

PRL 5298 INTRODUCTION TO RECREATIONAL SERVICES 3CR

Historical and philosophical foundations of leisure and recreational activities. Emphasis on socioeconomic movements, economic importance of recreation and social institutions which provide recreational services. Class meets three hours a week.

PRL 2459 SOCIAL RECREATION 2CR

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.

PRL 7164 OUTDOOR RECREATION 3CR

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.

PRL 2571 INTRODUCTION TO THERAPEUTIC RECREATION 3CR

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.



PRL 1379 RECREATIONAL FIELD STUDY 3CR

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.

RESPIRATORY THERAPY

NRT 3370 BEGINNING PRINCIPLES OF RESPIRATORY THERAPY 4CR

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 respiratory 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.

NRT 3371 RESPIRATORY THERAPY EQUIPMENT 4CR

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.

NRT 3372 CARDIOPULMONARY MEDICINE I 1CR

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.

NRT 3373 CLINICAL CARDIOPULMONARY PHYSIOLOGY 4CR

Prerequisite: Successful completion of summer sequence of respiratory therapy courses. A comprehensive study of the physiology and pathophysiology of the pulmonary, cardiovascular and renal systems as they relate to the practice of respiratory therapy. This study is 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.

NRT 3374 CLINICAL PRACTICE I 4CR

Prerequisite: Successful completion of summer sequence of respiratory therapy courses. The clinic 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.

NTR 3375 CLINIC TOPICS AND PROCEDURES I 3CR

Prerequisite: Successful completion of summer sequence of respiratory therapy courses. A lecture and lab course related to the clinic activities the student is pursuing in giving care to patients. Topics on basic care, emergency care, mechanical ventilators and critical care will be stressed. A pediatric lecture series will run throughout the semester. Class meets for two hours of lecture and three hours of lab each week. Fall.

NRT 3376 CARDIOPULMONARY MEDICINE II 2CR

Prerequisite: Successful completion of summer sequence of respiratory therapy courses. A continuation of the series provided by the medical director of the program with emphasis on disease states of the cardiopulmonary system. The pathology, diagnosis and treatment of the various diseases are presented. The role of the respiratory therapist in the medical management of these patients is discussed. Class meets for two hours of lecture a week. Fall.

RESPIRATORY PHARMACOLOGY . 2CR

Prerequisite: Successful completion of the fall sequence of respiratory therapy courses. Presents all the pharmaceuticals administered by respiratory therapists provide, plus general information on most of the drugs used in the care of patients with pulmonary problems. Drugs administered during cardiac arrest also are stressed. Class meets for one hour of lecture a week. Spring.

CLINICAL PRACTICE II 4CR

Prerequisite: Successful completion of the fall sequence of respiratory therapy courses. The clinic course is split into two-week quarters with emphasis on critical care of adults and neonates. Students will spend time on issues concerned with rehabilitation, department management, intubations and medical rounds. Includes 24 clinic hours a week. Spring.

CLINIC TOPICS AND PROCEDURES II 4CR

Prerequisite: Successful completion of the fall sequence of respiratory therapy courses. A continuation of lecture activities with emphasis on critical care of patients and more sophisticated aspects of respiratory therapy. Includes sections on medical ethics and patient management. Through the semester, a series on neonatology will be presented. Class meets three hours of lecture and three hours of lab a week. Spring.

RESPIRATORY MEDICINE III 2CR

Prerequisite: Successful completion of the fall sequence of respiratory therapy courses. A continuation of the director's discussion of pulmonary disease and their pathology and their treatment. Class meets one hour a week. Spring.

SECRETARIAL CAREERS

WORD PROCESSING APPLICATIONS 3CR

Prerequisite: BSC 1263 or equivalent. This class is an introduction to the basic functions of the Memory and Magic typewriters and shared logic word processing system. Class meets for three hours of lecture and two lab each week.

WORD PROCESSING CONCEPTS 3CR

Prerequisite: BSC 1263 or equivalent. *Processing Concepts* is designed to introduce the student to the concept of a changing office and to offer the student a basic understanding of word processing as a system in an organization. The course focuses on the theory, applications and administration of word processing. Class meets for three hours lecture each week.

BEGINNING TYPING 3CR

Prerequisite: None. This course covers the use of the keyboard and machine techniques. Instruction is given in personal and business letters, outlines, memorandum and centering. Individualized instruction and scheduled use of secretarial laboratory. Class meets three hours a week. Students should schedule two lab a week.



BSC 2376 INTERMEDIATE TYPING 3CR

Prerequisite: BSC 1263. 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.

BSC 7633 PRODUCTION TYPING 3CR

Prerequisite: BSC 2376. 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.

BSC 3018 SHORTHAND REFRESHER: SHORT COURSE 1CR

Review of theory and vocabulary. Emphasis on increasing speed in the writing of shorthand. Class meets one hour a week.

BSC 1519 SHORTHAND I 3CR

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 materials. Class meets three hours a week with a required lab two hours a week.

BSC 4590 SHORTHAND II 3CR

Prerequisites: BSC 1263 and BSC 1519. Designed for students with prior limited experience with shorthand. Review of shorthand theory, transcription techniques, spelling, punctuation and grammar through use of tapes and materials. Class meets three hours a week with a required lab two hours a week.

BSC 3630 DICTATION AND TRANSCRIPTION 3CR

Prerequisite: BSC 4590 and BSC 2376. Emphasis on increased speed and accuracy in writing shorthand from dictated material and transcribing notes. Class is instructor-directed but includes individualized materials. Student works at own ability level. Class meets three hours a week with a required lab two hours a week.

BSC 4715 MEDICAL TRANSCRIPTION 3CR

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.

BSC 2267 LEGAL SECRETARY 2CR

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 PLS examination should consult with the instructor prior to enrollment. Class meets two hours a week.

BSC 4137 KEYBOARDING 1CR

This course is designed for data processing students who cannot touch type as well as for employees in such areas as medicine, law, sales, travel and education who need keyboarding skills. Accuracy at the keyboard in alpha, numeric and symbol keys is stressed. Class/lab meets four hours a week for six weeks.

BSC 3325 STENOSCRIP SPEEDWRITING SHORTHAND 3CR

This course is designed especially for secretaries who need to learn dictation skills in a short period of time and for students who must take notes in class. Students in the course will begin taking dictation using abbreviated shorthand after the second session. It is possible to work up to 70-80 words per minute by the end of the course. Class will include theory, practice, speedbuilding and transcription. Three hours of lecture, two hours lab each week.

BSC 2732 STENOSCRIP DICTATION TRANSCRIPTION 3CR

Prerequisite: BSC 3325. This course is designed for students who desire additional speed dictation and transcription practice after completing *Stenoscript Speedwriting Shorthand*. All brief forms, abbreviations, spelling and punctuation will be reviewed. Students will take extended dictation practice, produce mailable transcripts and may reach speeds of 100-120 wpm upon completion of course. Class meets three lecture hours a week. Students will schedule two hours lab time each week.

BSC 5189 MACHINE TRANSCRIPTION 3CR

Prerequisite: BSC 2376. 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.

BSC 5190 ELECTRONIC CALCULATORS 1CR

The student will apply the fundamental operations of arithmetic and basic applications to business problems on electronic printing calculators. This functional knowledge includes using proper techniques in the basic operation, interpreting the answers and recording the answers thus enabling the student to develop a high degree of proficiency in touch operation, speed and accuracy; perform-

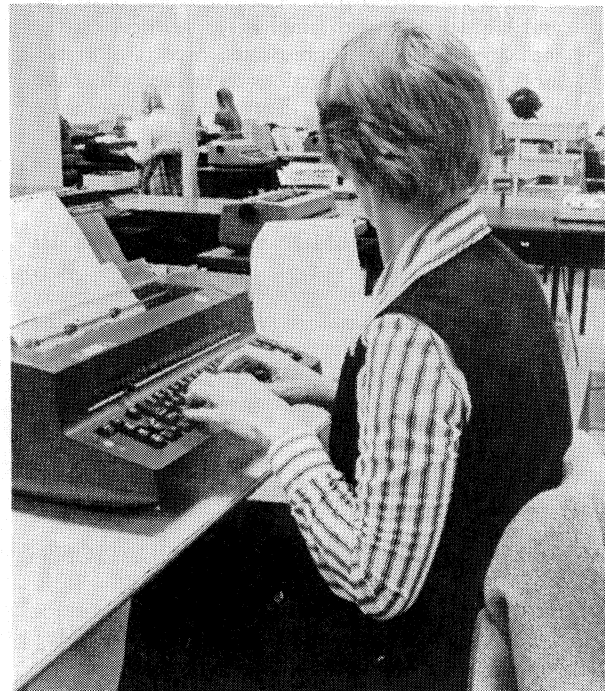
ing the basic functions; and solving application problems. Class meets one hour a week and one hour of lab should be scheduled.

BSC 1342 RECORDS MANAGEMENT 3CR

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.

BSC 1272 SECRETARIAL PROCEDURES I 3CR

Prerequisite: BSC 2376 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; transmittal 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.



BSC 2317 SECRETARIAL PROCEDURES II 3CR

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.

BSC 3857 SECRETARIAL FIELD STUDY I 2-3CR

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.

BSC 3858 SECRETARIAL FIELD STUDY II
2-3CR
 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.

BSC 3859 SECRETARIAL FIELD STUDY III
2-3CR
 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.

BSC 3860 SECRETARIAL FIELD STUDY IV
2-3CR
 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.

BSC 3861 SECRETARIAL FIELD STUDY V 2-3CR
 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.

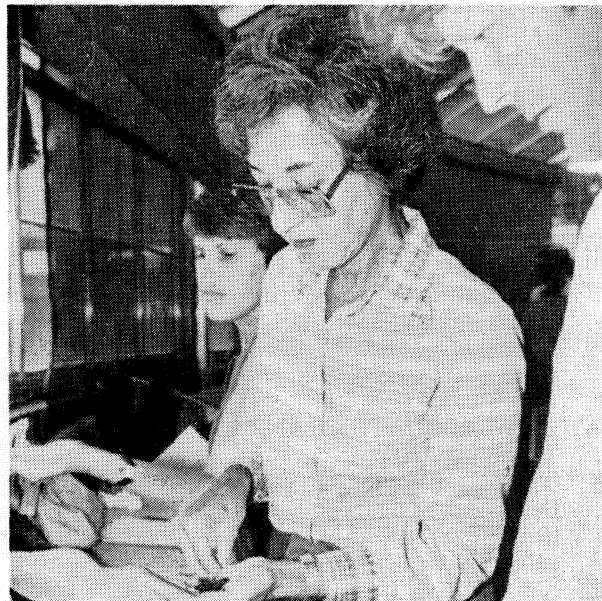
SMALL ANIMAL HEALTH

NAT 4894 INTRODUCTION TO ANIMAL TECHNOLOGY2CR
 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 justification and purposes for euthanasia, venapuncture, injections, animal sterilization and the development of appropriate attitudes toward research animals. Class meets two hours a week.

NAT 1895 SANITATION AND ANIMAL CARE
2CR
 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.

NAT 7896 CLINICAL MATH1CR
 Metric systems and conversion units. Apothecaries' equivalents and vocabulary. Preparation of solutions, vocabulary, strengths, procedures and computations. Drug administrating, calculating and measuring dosages. Class meets one hour a week.

NAT 6897 PRINCIPLES OF ANIMAL SCIENCE I
3CR
 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.



NAT 3899 PRINCIPLES OF ANIMAL SCIENCE II
3CR
 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.

NAT 2901 CLINICAL PATHOLOGICAL TECHNIQUES I4CR
 Emphasis on urinalysis, blood analysis, fecal analysis and preparation of smears and staining techniques. Introduction to hematology, differentiation of blood cells and serum chemistries. Class meets seven hours a week.

NAT 6004 CLINICAL PATHOLOGICAL TECHNIQUES II5CR
 Advanced work in hematology and serum chemistries. Emphasis on evaluation of laboratory specimens and basis of clinical chemistries. Class meets eight hours a week.

NAT 1902 ANIMAL HEALTH INTERNSHIP .6CR
Prerequisite: Two semesters of first-year animal health course. Supervised intensive clinical study under the direction of a cooperating veterinarian to provide actual work experience. 420 work hours.

NAT 5903 ANIMAL HOSPITAL TECHNOLOGY I
3CR
 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, intrauterine infusions, intramammary gland infusions, and other mastitis therapy. Administration of anesthetics and assisting surgeon during operations. Techniques of radiographic film processes. Class meets five hours a week.

NAT 6906 ANIMAL HOSPITAL TECHNOLOGY II3CR

Continuation of *Animal Hospital Technology I*. Study of orthopedic procedures, electrocardiography, pharmacology and anesthesia. Laboratory exercises in surgical assisting, blood transfusion, anesthetic emergencies, bandaging and fluid therapy. Class meets five hours a week.

NAT 4904 ANIMAL TECHNOLOGY ANATOMY5CR

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.

NAT 3905 LABORATORY ANIMAL TECHNOLOGY2CR

Prerequisites: NAT 6897, NAT 3899, NAT 2901. Designed to equip the student with the capabilities of handling a supervisory position in a laboratory animal colony. Class meets three hours a week.

NAT 6006 LARGE ANIMAL TECHNOLOGY . . .4CR

Prerequisites: NAT 6897 and NAT 3899. Large animal handling and restraint. Oral and parenteral medications, blood collection, sanitation and housing. Study of diseases affecting large animals and preventive medicine. Class meets six hours a week.

NAT 8909 RADIOLOGY AND ELECTRONIC PROCEDURES2CR

Intensive study and practice in radiological techniques. Positioning, exposure, developing, establishing a technique chart, evaluation of technical errors and studies in contrast radiography. Theory of radiology, types of machines, films and cassettes, radiation safety. Class meets three hours a week.

SMALL ENGINE TECHNOLOGY

TSE 7240 BASIC SMALL ENGINE SERVICE . . .3CR

This course is designed to prepare the student to distinguish between characteristics of a four-stroke cycle and a two-stroke cycle engine; to list the functions of the lubricating, cooling, fuel and governor systems; to troubleshoot engine problems and to inspect engine components; and to service the fuel, cooling and exhaust systems. Two hours lecture, three hours lab each week.

TSE 7241 SMALL ENGINE ELECTRICAL SYSTEMS3CR

Prerequisite: TSE 7240. This course emphasizes the types of current and the relationship between electricity and magnetism; types of electrical circuits and the ability to solve problems using ohm's law; the identification of components and the purpose of the ignition system; testing the coil, condenser, armature and flywheel magnets; servicing the ignition system; and testing and servicing the charging and starting system. Two hours lecture, three hours lab each week.

SOCIAL SCIENCES

SS 1068 INTRODUCTION TO PSYCHOLOGY3CR

In this basic introduction to general psychology, topics include the biological aspects of behavior, the brain, consciousness, sensation and perception, motivation and emotion, stress, maturation and development, learning and memory, normal and abnormal personality and social psychology. The course is a prerequisite for other courses in psychology. Class meets three hours a week.

SS 5663 SOCIAL PSYCHOLOGY3CR

Prerequisite: SS 1068. This introduction to the psychology of social behavior is 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 social influence, attitude formation and attitude change, social attitudes and prejudice, conformity and deviation, socialization and personality, aggression, leadership and group dynamics. Class meets three hours a week.

SS 9022 TRANSPERSONAL PSYCHOLOGY . . .3CR

Prerequisite: SS 1068. This introduction to an emerging force in psychology 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, interpersonal encounter, extrasensory phenomena, ultimate values and eternal meanings. Experimental exercises will be used to assist the integration of spirit, mind and body. Class meets three hours a week.

SS 3148 EDUCATIONAL PSYCHOLOGY . . .3CR

Prerequisite: SS 1068. Application of principles of psychology to problems in learning-teaching situations. Study of behavior, skills, memory, generalization of learning, assessment and measurement of learning, and intelligence. Practicum in a structured setting is required. Class meets three hours a week.

SS 4639 PERSONALITY AND ADJUSTMENT3CR

Prerequisite: SS 1068. A study of three general view points or paradigms in psychology with emphasis on each system's contribution to helping the "normal" person adjust to everyday problems. Topics include assertiveness, aggression, stress reduction, relaxation, racism, sexism, sex roles and career development. Class meets three hours per week.

SS 3546 CHILD DEVELOPMENT3CR

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.

SS 2002 HUMAN POTENTIAL SEMINAR . . . 3CR

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.

SS 7227 CAREER/LIFE PLANNING 3CR

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.

SS 5716 MARRIAGE AND THE FAMILY 3CR

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.

SS 3404 SOCIOLOGY 3CR

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.

SS 4122 SOCIAL WELFARE 3CR

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.

SS 4123 SOCIAL WORK AND SOCIAL SERVICES 3CR

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.

SS 3428 SOCIAL PROBLEMS 3CR

Selected social problems—from crime to drug abuse—are analyzed from a variety of sociological and cultural perspectives. Emphasizes the history and development of the problems and considers solutions. Class meets three hours a week.

SS 3721 PHYSICAL ANTHROPOLOGY 3CR

Study of basic concepts and research areas in physical anthropology. Examines archaeology, 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.

SS 1029 CULTURAL ANTHROPOLOGY . . . 3CR

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.

SS 1456 POLITICAL SCIENCE 3CR

An introduction to the ideas and institutions that have shaped 20th century politics. Class meets three hours a week.



SS 2678 STATE AND LOCAL GOVERNMENT 3CR

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.

SS 3138 AMERICAN NATIONAL GOVERNMENT 3CR

Examination of the theoretical, political and administrative aspects of American government. Topics studied include the Constitution; political parties; the executive, legislative and judicial branches; and public policy formulation and implementation. Class meets three hours a week.

SS 5852 INTRODUCTION TO COMPARATIVE GOVERNMENT 3CR

Introduction to the comparative study of political systems. Ideology, socio-economic institutions and decision-making structures 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.

SS 2808 INTERNATIONAL RELATIONS 3CR

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.

SS 1055 U.S. HISTORY TO 1877 3CR

This survey course in U.S. history emphasizes the study of developments and trends in American society from the early period of discovery and settlement through Reconstruction. Topics include the Colonial Era, the Revolutionary period, the Constitution, the Federalist Era, expansion of the Republic during the mid-19th century and the Civil War and Reconstruction. Class meets three hours a week.

SS 2000 U.S. HISTORY SINCE 1877 3CR

This survey course in U.S. history emphasizes the study of developments and trends in American society from the 1870s to the mid-20th century. Topics include the Reconstruction Era, Industrialization, Immigration, Reform Movements, the two World Wars and Foreign Policy. Emphasis is on analysis and interpretation of these developments. Class meets three hours a week.

SS 4087 MODERN RUSSIAN HISTORY 3CR

This is a survey of the history, culture, foreign policy, politics and socio-economic events in Russia from the time of Peter the Great through today. Class meets three hours a week.

SS 9922 EUROPEAN HISTORY FROM 1750 . . 3CR

Survey of the major historical trends in Europe from the period of the Industrial Revolution. Topics will include industrialization, nationalism and the two World Wars. Class meets three hours a week.

SS 5500 WESTERN CIVILIZATION: READINGS AND DISCUSSION I 3CR

Major ideas in western civilization dealing with our relationship to the environment and our speculations on the nature of God. Emphasis is placed on out-of-class reading by the students with small group discussions arranged five to seven times during the semester.

SS 2006 WESTERN CIVILIZATION: READINGS AND DISCUSSION II 3CR

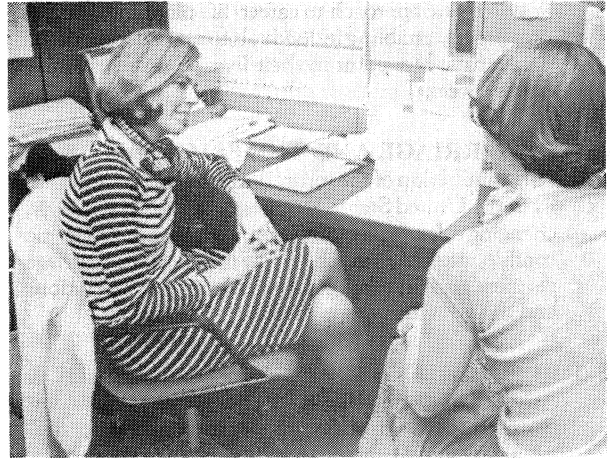
Covers major ideas in western civilization dealing with social, economic, political and ethical relations. Emphasis is placed on out-of-class reading by the students with small group discussions arranged five to seven times during the semester.

SS 3656 GREAT DECISIONS I: ISSUES IN U.S. FOREIGN POLICY 1CR

In this course on current issues in international politics, students will review the history of and U.S. policy options for selected problems. Topics will include current political and social issues and will vary from year to year. Class meets one hour each week.

SS 5191 APPLIED PSYCHOLOGY 3CR

Emphasis in this course is on how students can use psychological principles to better understand their own experiences and those of other people. Topics include recent popular approaches to psychological problems, interpersonal relationships and common emotional problems, and a survey of the student's view of self, values and goals. The course also will show how psychology applies to other areas such as business and education. Class meets three hours each week.



SS 1697 U.S. AND THE U.S.S.R.: TRAVEL FOR CREDIT 3CR

Students will examine contemporary Soviet and American societies. They will compare the respective histories; current social, economic and political conditions; educational systems; and the arts. The course of study will include readings, discussions, and trips to theaters, museums, cathedrals, schools and other cultural and historical sites. Class includes fifteen hours of lecture and 160 hours of travel.

SS 2737 METHODOLOGY IN THE SOCIAL SCIENCES 3CR

Prerequisite: SS 1068 or SS 3404 or BUS 2253. This course deals with scientific research methods in psychology, sociology and other social sciences involving analysis of behavior. A wide range of data collection methodologies are explained including questionnaire methods and controlled experimentation. The course should be useful to those analyzing research reports in newspapers and magazines or planning to engage in occupations that require the use of research findings. Class meets three hours each week.

SS 2733 PERSPECTIVES ON AGING 3CR

A study of the aging process with emphasis on the social aspects of aging. This course will develop an understanding of how social forces affect the older generation through an examination of general theory; research themes and demographic trends; relationships to family, economy, politics, religion, and education; the importance of how cultural values affect behavior; and the future for the elderly in today's society. Class meets three hours each week.

SPECIAL SERVICES

APP 4451 SURVEY OF THE EXCEPTIONAL CHILD 3CR

This course will survey the exceptionalities now being served in public schools and the characteristics of each including mental retardation; learning disabilities; behavior and communication disorders; hearing, visual, physical and health impairments; and giftedness. Three hours of lecture each week.

APP 6184 BASIC STRATEGIES FOR SPECIAL EDUCATION PARAPROFESSIONALS . . . 1CR

An introductory course which surveys the many aspects of teaching and learning involved in the education of disabled people—kindergarten through adult. Emphasis will be on defining the responsibilities and role of the para-professional in various helping situations. Class meets for one six-hour session.



SPEECH AND DEBATE

CSP 4130 PUBLIC SPEAKING 3CR

A fundamental speech course with emphasis on speech organization, development of ideas, audience analysis and delivery. Students will deliver informative and persuasive speeches in the impromptu, extemporaneous and manuscript styles. Class meets three hours a week.



CSP 4950 INTERPERSONAL COMMUNICATION 3CR

A 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 may be given but everyday communication is stressed. Class meets three hours a week.

CSP 1150 GROUP DISCUSSION 3CR

Study of communication within small groups emphasizing the experiences and principles necessary for developing effective group dynamics and leadership skills. A variety of experiential mechanisms are employed. Class meets three hours each week.

CSP 5545 ELEMENTARY DEBATE 2CR

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.

**CSP 2801 - # listed in Sp '84 schedule 3 CR*

*CSP 2162 INTERMEDIATE DEBATE I 2CR

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.

**CSP 2802 - # listed in Sp '84 schedule 3 CR*

*CSP 1001 INTERMEDIATE DEBATE II 2CR

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.

**CSP 2803 - # listed in Sp '84 schedule 3 CR*

*CSP 6651 ADVANCED DEBATE 2CR

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.

THEATER

CDR 1809 INTRODUCTION TO THEATER . . . 3CR

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.

CDR 3311 ACTING I 3CR

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, TV studio performances and stage performances for classes.



CDR 5316 ACTING II 3CR

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, TV studio performances and stage performances for classes.

CDR 3407 CHILDREN'S THEATER I 3CR

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.

CDR 3408 CHILDREN'S THEATER II 3CR

Prerequisite: CDR 3407. 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

CDR 5001 IMPROVISATION FOR THEATER . . 1CR

Introduction to theater improvisation, emphasizing creative stage activities not requiring a written script. Class meets one hour a week.

CDR 4669 READER'S THEATER 3CR

A fusion of acting, interpretation and rhetoric providing a flexible approach to a wide variety of literary and theatrical materials. Emphasis on analyzing and performing prose, poetry and dramatic literature. Students will give public performances. Class meets three hours a week.

CDR 5417 THEATRE PRACTICUM I 2CR

Provides students practical experience in technical theater techniques. Class meets four lab hours per week.

CDR 5418 THEATRE PRACTICUM II 2CR

Provides students additional practical experience in technical theater techniques. Class meets four lab hours per week.

CDR 1238 LIGHTING 1CR

Provides students with the theory and practical experience in stage lighting. Class meets for 1½ hours lecture and 1½ hours lab each week for five weeks.

CDR 2656 MAKE-UP 1CR

Provides students with the theory and practical experience in stage make-up. Class meets for 1½ hours lecture and 1½ hours lab each week for five weeks.

CDR 3745 SET DESIGN 1CR

Provides students with the theory and practical experience in designing stage sets. Class meets for 1½ hours lecture and 1½ hours lab each week for five weeks.

CDR 4582 COSTUMING 1CR

Provides students with the theory and practical experience in creating costumes for stage production. Class meets for 1½ hours lecture and 1½ hours lab each week for five weeks.

CDR 5436 TECHNICAL THEATER FIELD STUDY I 1-3CR

Technical theater work experience at an approved training center under staff supervision. Students receive a minimum of five hours of on-the-job training a week by arrangement. Class meets for one hour lecture and a variable number of lab hours each week.

CDR 5437 TECHNICAL THEATER FIELD STUDY II 1-3CR

Continued technical theater work experience at an approved training center under staff supervision. Students receive a minimum of five hours of on-the-job training a week by arrangement. Class meets one hour per week lecture with variable lab hours.

CDR 5588 THE SHAKESPEARE PLAYS 3CR

An introduction to the plays of Shakespeare through reading and viewing selected plays on television.

URBAN AGRIBUSINESS

NUA 6888 INTRODUCTION TO URBAN AGRIBUSINESS 1CR
 Job opportunities and careers in horticulture. Class meets one hour a week.

NUA 8887 THEORY AND PRACTICE OF HORTICULTURE I 5CR
 Principles of plant classification, structure, photosynthesis, growth and development. The nature and properties of soils related to plant growth. Three hours of lecture and four hours of lab a week.



NUA 3889 THEORY AND PRACTICE OF HORTICULTURE II 5CR
 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. Three hours of lecture and four hours of lab a week.

NUA 2930 LANDSCAPE HORTICULTURE . . . 3CR
Prerequisites: NUA 8887 and NUA 3889. Principles of planning, producing, setting out and maintaining ornamental plantings of trees, vines, ground covers, perennials, turf and annuals. Class meets three hours a week.

NUA 2891 PLANT MATERIALS I 3CR
Prerequisites: NUA 8887 and NUA 3889. Perennials, annuals and conifers for landscape planting. Class meets four hours a week.

NUA 8893 PLANT MATERIALS II 3CR
Prerequisites: NUA 8887 and NUA 3889. Identification, uses and abuses of deciduous trees and shrubs as well as evergreens and woody vines in landscaping. Class meets four hours a week.

NUA 9886 PRINCIPLES OF SUPERVISION . . . 3CR
 Responsibilities of supervisors. Organization, duties, human relations, grievances, training, rating, promotion, quality control and management-employee relations. Class meets three hours a week.

NUA 4007 GROUNDS ESTABLISHMENT AND MAINTENANCE 3CR
Prerequisites: NUA 8887 and NUA 3889. Arboriculture and turf grass management. Maintenance of trees. Establishment and maintenance of turf. Class meets four hours a week.

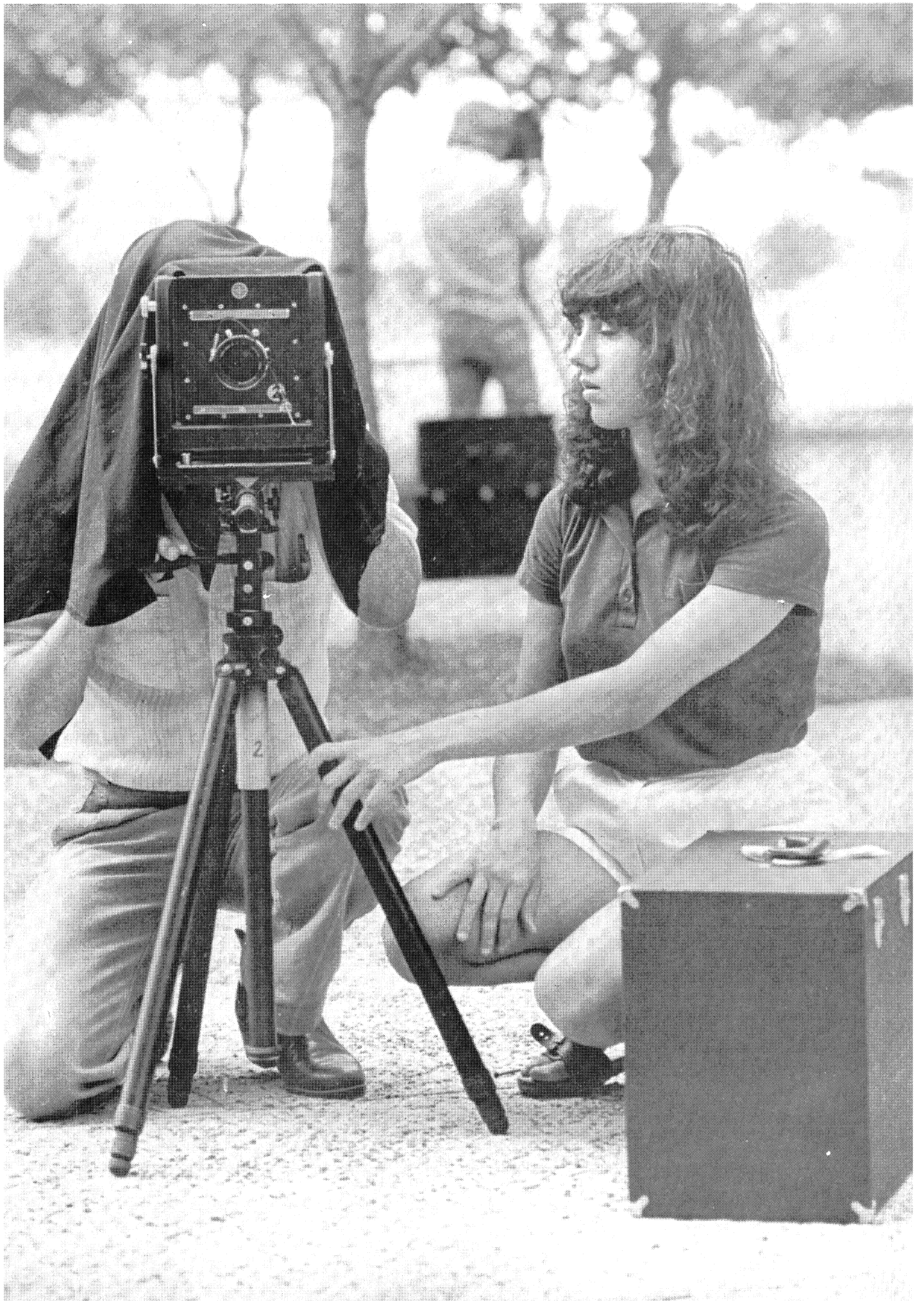
NUA 5890 COOPERATIVE WORK EXPERIENCE I 3CR
Prerequisite: Approval of division director. On-the-job training in a field directly related to the Urban Agribusiness Program. Fifteen hours a week.

NUA 7892 COOPERATIVE WORK EXPERIENCE II 3CR
Prerequisite: NUA 5890. On-the-job training in a field directly related to the Urban Agribusiness Program. Fifteen hours a week.

NUA 8937 SPECIAL TOPICS IN HORTICULTURE I 1-3CR
Prerequisites: NUA 8887 and NUA 3889. 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.

NUA 2938 SPECIAL TOPICS IN HORTICULTURE II 1-3CR
Prerequisites: NUA 8887 and NUA 3889. 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.

NUA 6009 SPECIAL TOPICS IN HORTICULTURE III 1-3CR
Prerequisites: NUA 8887 and NUA 3889. 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.



Student and Instructional Services

Counseling Center
Adults Unlimited Program
Testing/Assessment Center
Career Planning and Placement Center
GED Program
Learning Center
Writing Center
Project CLEAR
Hearing Impaired Program
Gallaudet College Extension Center
Child Play Center
Dental Hygiene Clinic
Student Activities Program
Campus Ledger
Athletics
Library
Parking

STUDENT AND INSTRUCTIONAL SERVICES

Counseling Center

JCCC's counseling staff is on hand to help you with academic, career or personal problems. You may see a counselor on a walk-in basis or by appointment.

Here is what the Counseling Center has to offer:

- **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.



Adults Unlimited Program

If you're an adult returning to school, you can get assistance in educational, career and personal decision-making and goal-setting through the Adults Unlimited program. Counseling, information and referral services also are provided. The program publishes a monthly newsletter for adult students and sponsors support groups and non-credit workshops. The services are available on a walk-in basis or by appointment in the Counseling Center.

Testing/Assessment Center

The center provides a wide variety of testing services to you and the community including new student assessment testing; administration of standardized examinations (CLEP, PEP, ACT, GED and Vocational Interest Inventories); instructional make-up exams; credit by examination; and correspondence/TV course testing. The Testing/Assessment Center also coordinates the experience-based education process through which you can gain credit for your life experiences. For more information, contact the Testing/Assessment Center.



Career Planning and Placement Center

Career education, individual and group career planning and information on more than 20,000 occupations are among the services available through the center. Hundreds of current job openings are listed and extensive community resource files are available. You can receive help in doing research for classroom assignments and on topics related to career/life planning and job hunting. Workshops and individual appointments are available throughout the year. Stop by the center for an appointment.

GED Program

If you plan to obtain a high school equivalency certificate by taking the General Educational Development Test (GED), contact the Testing/Assessment Center for details. If you are ready now to take the GED Test, 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 test admission notice.

Help in preparing for the GED Test is available at no charge through a variety of classes including twelve-week, eight-week and six-week classes and through individual instruction.

How do you decide if you need help in preparing? The official GED Practice Test is available through the Testing/Assessment Center to help you decide if you're ready to take the GED Test. It will help you identify areas of strength and weakness and determine whether you need more study before you take the test.



Learning Center

The Learning Center 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 and 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 Learning Center for details.

Writing Center

Need help in writing an essay, research paper, journal, business letter, resume, book report or other assignment? Come to the Writing Center. Instructors and student tutors are on hand to help you solve specific grammar, spelling and word usage problems. 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 support for admission and orientation and supportive services such as notetaking, interpreting and counseling. A variety of courses is available each semester including speech therapy, manual communications and the fundamentals of math and English.

In addition, the program makes an effort to inform the community and others throughout Kansas how to better deal with the hearing-impaired population. For more information, contact the Special Services Division.

Gallaudet College Extension Center

JCCC established the Gallaudet College Extension Center in cooperation with Gallaudet College in Washington, DC—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. For more information, contact the Special Services Division.

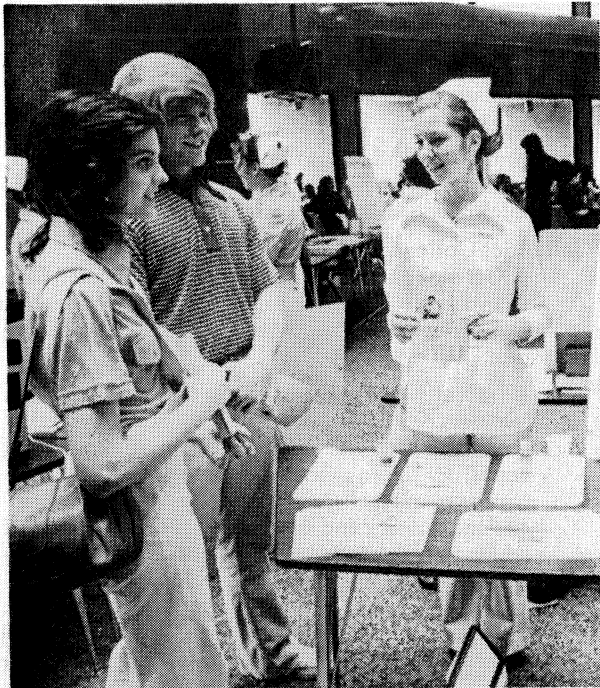


Child Play Center

Need a place for your child while you're on campus for class? Try the Child Play Center, a child care service designed especially for JCCC students. Our qualified staff provides planned activities and creative play for your child. The fee is \$1 an hour per child for reserved time or \$1.50 an hour for drop-in time. In order to meet with Kansas State regulations, enrollment is limited to children at least 2½ years of age and toilet trained up through age 8. You are encouraged to enroll early as there is a maximum capacity for enrollment met on a first-come, first-served 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, Captioned Films for the Deaf Series, 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 theatres.

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 director of Student Activities or call the WHAT'S HAPPENING HOTLINE, 541-3888. To join or form a club, contact the director 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 and conference eligibility rules to compete in intercollegiate activities.

JCCC also offers a full range of intramural activities which enable you to develop your skills and make friends during your leisure time.

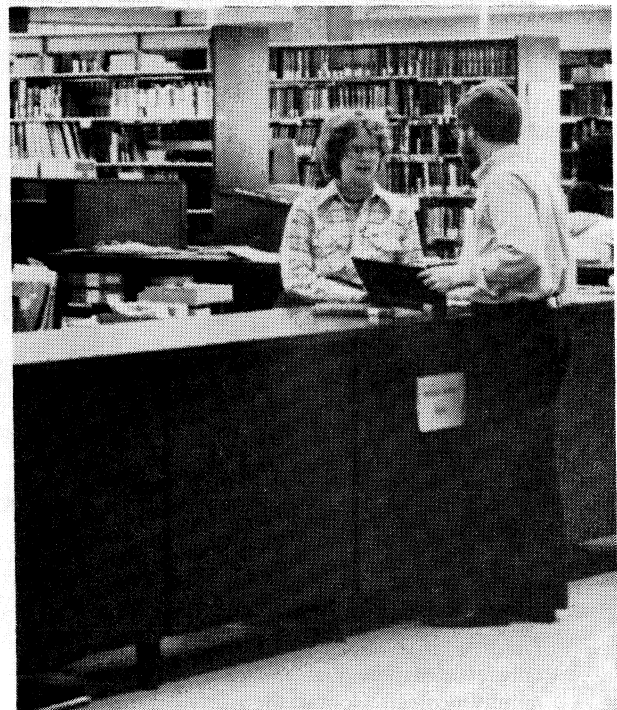
Library

The JCCC library maintains a collection of books, periodicals, films, slides, tapes, microfilm and other resources available to students and Johnson County residents. A highly trained staff of librarians and library aides are on hand to assist you in finding and using the resources.

Currently, the library houses more than 45,000 books, 480 current periodicals, 180,000 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 3, 6 and 10 unless you have a permit.

Handicapped Parking

If you are permanently or temporarily disabled, you may obtain a parking permit from the Special Services Office. This permit will allow you to park in designated spaces on campus. A physician's certification may be required to receive this permit.

Motorcycles and motorscooters

If you are riding a motorcycle or motorscooter, you are expected to comply with all parking and traffic regulations.

Bicycle racks

Racks are available throughout the campus. You do not need to register your bicycle.

Emergency parking or loading

Special permits are available at the switchboard.

Handicapped Lot Violation

Your vehicle will be immobilized or towed after you receive two citations for parking in a handicapped lot without a permit, Monday through Saturday, 7am to 9pm. You will be charged \$10 for removal of the immobilizer.

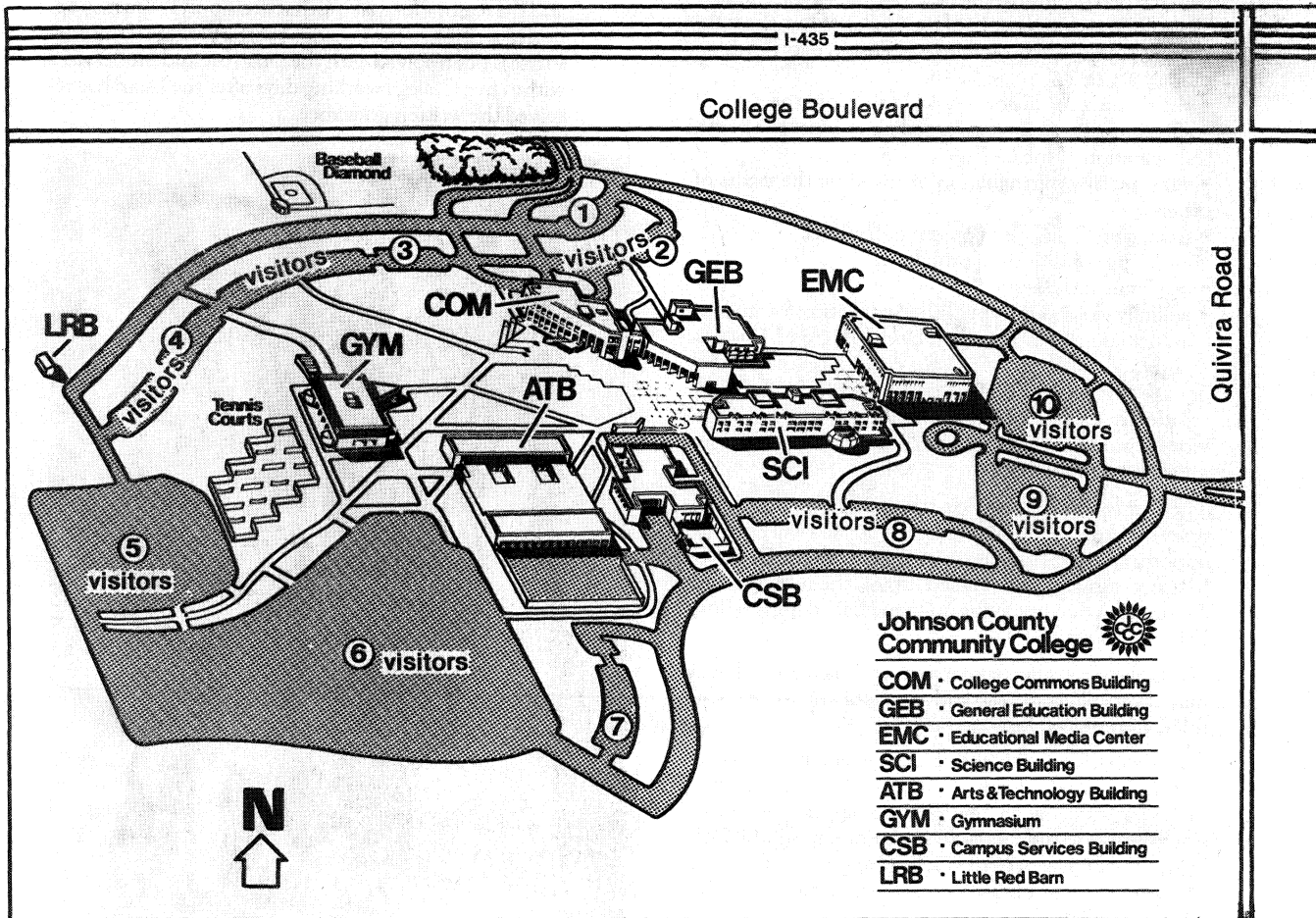
Immobilization or towing

Your vehicle will be immobilized or towed away if:

1. it is parked in a handicapped parking lot or a loading area without a permit;
2. you refuse to move your vehicle after a security officer requests you do so;
3. it is blocking a dock or sidewalk or is parked on the grass;
4. you park your car or truck in the motorcycle area.

Accidents

If you are involved in an accident on campus, notify the Security Office immediately and file an accident report.





Student Code of Conduct

JCCC reserves the right to suspend you for any conduct which is detrimental to the best interests of the College. These following violations of the College's standards for student conduct may result in suspension or other disciplinary action:

- threatening the life or physical safety of others;
- substantially disrupting, impeding or interfering with the operation of the College
- substantially infringing on or invading the rights of others
- damaging College equipment or facilities
- violating conditions of probation
- academic dishonesty
- willfully violating any published regulation for student conduct adopted or approved by the Board of Trustees
- conduct which results in your conviction of a federal or state offense. (The College does not prohibit the participation in College programs of students who have previous criminal records, for which they have met the requirements of the law.)

The Dean of Student Services is responsible for any temporary or permanent student suspension. You will have the opportunity to discuss the suspension with the Dean before any formal action is taken, unless the suspension is a result of action involving an immediate danger to life, limb or property.

The College considers suspension a serious action. It will make every effort to keep you in school and to help you fulfill your objectives.

There is a written policy about suspension that protects your rights as an individual. All procedures are handled in writing with enough time for you to appeal the suspension through a student discipline committee of the College to the President of the College and to the Board of Trustees. You may obtain a copy of this policy from the Dean of Student Services.

How to file a grievance

A grievance may concern an alleged violation of school policies, alleged infringement of your rights as a student and other such problems concerning students, College staff and authorized College 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.

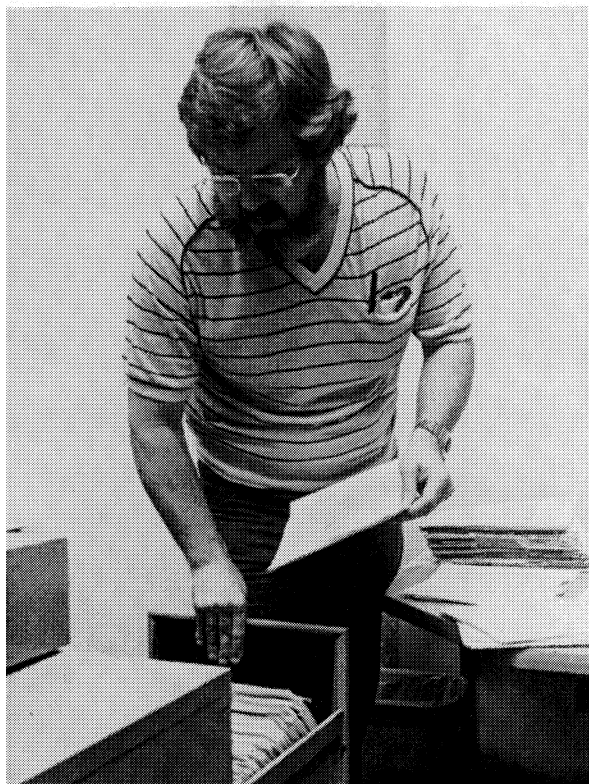


(d) **Consult with the President of the College.** (1) The President must receive the written appeal within 10 College working days from the time you filed the grievance with the Dean of Student Services. (2) The President must, within five College working days, inform you in writing of any decisions 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.



If you are a dependent student, under 18 years of age, your parents will have access to your educational record. The College will assume you are a dependent if your parents provide a written statement that you are listed as a dependent on their federal income tax forms.

JCCC does not publish a student directory. JCCC may, upon request, provide the following information to authorized individuals:

- student's name
- address
- telephone number
- date and place of birth
- major field of study
- participation in officially recognized activities
- sports – weight and height of athletic team members
- dates of attendance
- degrees
- awards received
- most recent previous educational institution attended

If you object to the disclosure of any of the above information, notify the Admissions/Records Office in writing which items you do not want released without your consent.

You may obtain a copy of the College's policies on access to student information and implementation of these procedures from the Admissions/Records Office.

You may file a complaint with the Department of Education if you believe your rights under this law have been violated and if efforts to resolve the situation through JCCC appeal channels have proved unsatisfactory. Send your complaint to:

F.E.R.P.A., Department of Education
Room 514 E
200 Independence Avenue SW
Washington, DC 20201

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 the Department of Health, Education and Welfare in the June 17, 1976 Federal Register. The law and regulations published by HEW require educational institutions to:

- provide you an opportunity to inspect your 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 written consent or to officials specifically permitted within the law, such as college officials and – under certain conditions – local, state and federal officials.



↑ GEB General Education Building

← East Entrance

↙ Connection to CCM Building & Elevator

♿ Campus Information

Continuing Education and Community Services

Continuing Education
Community Development
Community School Program
Cultural Arts Programming
A Program for those over 60
Employee Development Programs/
On-Site Education
Clinics and Courses for Youth
Special Events
Child Care Directory
Tours
Speakers Bureau
Courses by Television
Conferences and Workshops
Extension Courses
Use of College Facilities
Community Theater, Chorus, Jazz Band
Arts Council of Johnson County



COMMUNITY EDUCATION AT JCCC

What is community education at JCCC? It's non-credit courses and activities ... formal classes or non-traditional programs ... cultural and recreational offerings designed specifically to meet the needs of the community and using school, college, library and other facilities. Community education activities at JCCC are created using input from you and the community.

Continuing Education

Would you like to improve your on-the-job performance, develop a new skill or pursue a leisure-time interest? Try the workshops, seminars and courses offered through JCCC's continuing education program. Courses are non-credit and are held at convenient locations throughout Johnson County. Bulletins announcing available courses are mailed to all Johnson County residences three times a year.

Courses and activities are offered in these areas:

Arts, Crafts and Hobbies
 Automotive
 Aviation
 Business
 Career Planning
 Childhood Education
 Communications
 Computer
 Dance
 English as a Second Language
 Family Life
 Film
 Foods
 Foreign Language
 GED Tests and CLEP
 Health and Safety

Horsemanship
 Home Management
 Industrial Arts
 Money Management
 Music
 Office Education
 Performing Arts
 Personal Development
 Photography
 Physical Development
 Reading and Math
 Real Estate
 Science
 Sewing
 Sign Language
 Sports and Recreation

Community Development

If you are concerned about development, stabilization or change in your community, why not confront these issues with others who care? JCCC is often a meeting ground and catalyst for citizens interested in:

- developing leadership skills
- examining proposed amendments to the state constitution
- meeting and questioning candidates for political office
- exploring problems and opportunities related to youth, women, single adults, the elderly, and minority groups
- discussing health services, county reorganization, land use, water and environment
- joining Great Decisions discussion groups focusing on foreign policy decisions
- considering today's trends in ethics and economics
- searching for values affecting individuals and society

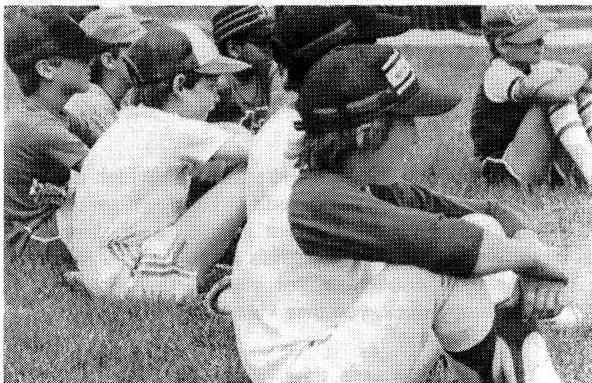
Community School Program

If you live in one of the smaller urban or rural areas in Johnson County, you do not have to travel far to take JCCC courses. JCCC comes to you through its community school program established in Olathe and co-sponsored by Olathe Unified School District 233; in Stanley-Stilwell, co-sponsored by Blue Valley Unified School District 229; in DeSoto, co-sponsored by DeSoto Unified School District 232; in Spring Hill, co-sponsored by Spring Hill Unified School District 230; and in Gardner-Edgerton-Antioch, co-sponsored by Unified School District 231. Classes are held in local schools and are selected jointly by community advisory committees and JCCC. Each community school also has a resident coordinator who assists in selecting courses and who acts as liaison between the community and JCCC.

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.

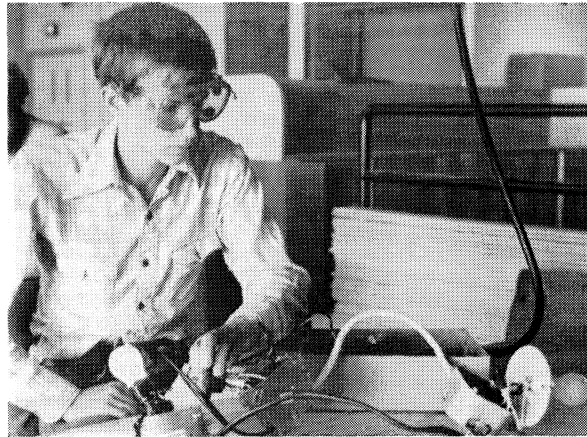


Clinics and Courses for Youth

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.

Cultural Arts Programming

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 programming includes classes, lectures, films, concerts and tours on a variety of subjects—architecture, antiques, anthropology, art, jewelry, theatre, music, photography, astronomy, travel, nature and commerce. The College cooperates with local schools, colleges, institutions and organizations to offer you an exciting program of cultural activities both on and off campus.



Business and Industry Institute

The Business and Industry Institute: New Ventures in Training and Professional Development is an arm of Johnson County Community College designed to help business and industry solve training and professional development problems and stimulate economic development. The Institute offers business, industry and government groups all the training, research, consulting and technical assistance the college has to offer ... at a reasonable cost. Among the services offered are:

On Site Training: credit and non-credit courses taught at the business site. Courses can be designed to fit the needs of individual businesses, using their equipment and facilities so employees can learn in the actual working conditions.

On Campus Training: credit and non-credit courses, seminars, workshops and programs in technology, business, health and human services offered on the JCCC campus. Courses and programs can be designed to specifications of individual businesses.

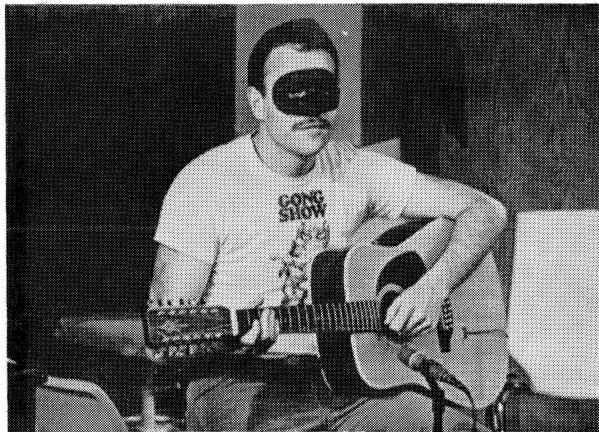
Professional Seminars: professional and management development seminars both on campus and on site.

Professional Resources: resource sharing and problem solving, including assistance with training, equipment, services and consultants.

Employee Development Programs

On-Site Education

JCCC has helped many organizations in Johnson County meet their employee training needs by offering a variety of programs in such areas as management, human relations, business writing, financial planning and physical fitness. College staff teaches many courses listed in the College Catalog and Community Education Bulletin on the premises of any business, firm, industry or community organization in Johnson County. If your organization has a specific need that cannot be met by existing programs, JCCC will assist you in designing a program to meet that need. Many organizations have participated in JCCC's employee development programs including Johnson County Library, Montgomery Ward, King Radio and United Telecommunications. Employee development seminars also are offered on campus throughout the year. Contact the Business and Industry Institute for more information.



Special Events

The many special events JCCC offers each year cover a variety of topics including music, theatre, art, astronomy, energy, health, foreign policy, science fiction, film festivals and family fun. Seminars and conferences in parent education, pre-retirement aging and stress management also are offered. In addition, JCCC holds forums on community action throughout the area in cooperation with other organizations.



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, stamped, self-addressed envelope to JCCC Community Services, 12345 College at Quivira, Overland Park, Kansas 66210.

Tours

Each semester, JCCC offers five "day trips" to nearby communities of historic or artistic interest such as Abilene, Atchison, Lexington, Weston and Jamesport. The tours usually include lunch at a colorful local restaurant. Half-day tours to artistic events, museums and other places of cultural interest also are available.

Speakers Bureau

Does your organization need a guest speaker? You pick the topic—chances are JCCC's Speakers Bureau can arrange for someone to speak to your organization about it. The Bureau also can arrange performances by music, drama and speech students.



Courses by Television

Each semester JCCC offers telecourses which make it possible to earn college credit at your own pace. Non-credit telecourses also are offered. Each lesson is shown several different times a week – you pick the time most convenient for you. And if you miss a lesson one week, you may view it on videotape in the JCCC library.

You also may save time, money and gas through courses by television. There is no need to come to campus except for a few scheduled class meetings and for exams. That means no hassles with traffic, bad weather or babysitters. Simply switch on your cable television and your living room becomes a classroom.

You can apply college credits earned through telecourses to your associate degree program and in most cases these credits will transfer to other colleges. You may be either a full-time or part-time student at JCCC and there is no limit to the number of telecourses you may take.

It's natural to be apprehensive about learning on your own out of the classroom. But if you are self-disciplined and can learn without supervision, you should have no problems. And if you have questions during the semester, a JCCC instructor will be just a phone call away.



Community Theatre, Chorus, Jazz Band

The College cooperates with The Barn Players, Inc. to bring community theatre to Johnson County. An all-volunteer crew produces a summer series of five full-length plays as well as other productions and a Readers Theatre throughout the year. Training for beginning actors is offered in the fall and spring. The Senior Acting Troupe produces a series of one-act plays dealing with the concerns of aging.

The Johnson County Community Jazz Band presents music in the styles of Count Basie, Stan Kenton, Maynard Ferguson and others at concerts held twice a year in JCCC's Little Theatre. Community concerts also may be booked through the Community Services Office.

The JCCC Community Chorus rehearses weekly and presents concerts on campus and throughout the community during the academic year. Membership is by audition.

Conferences and Workshops

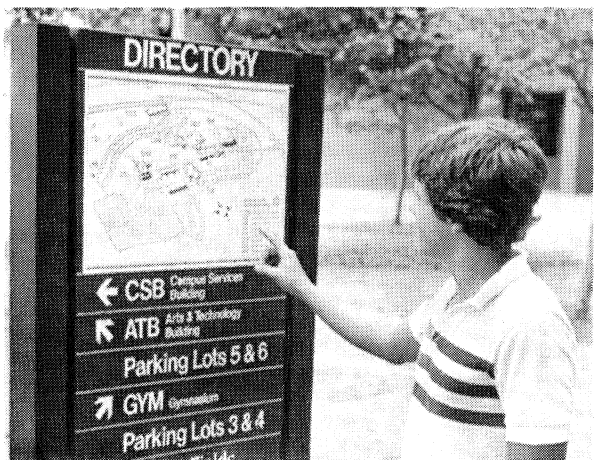
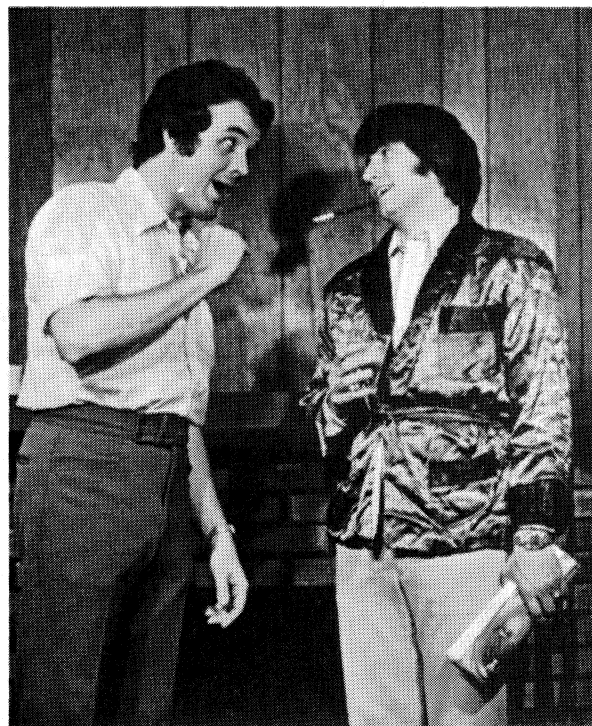
The College's community service program offers a wide range of services to public and private organizations including planning and arranging for seminars, conferences, institutes, short courses and workshops. The College also conducts and co-sponsors workshops and conferences with other institutions and organizations. For more information, contact the Community Services Office.

Extension Courses

The College provides off-campus community education outreach courses for college credit. All credit courses offered by the College can be offered at any location if there is enough participants and the environment is conducive to learning. For more information contact the Continuing Education Office.

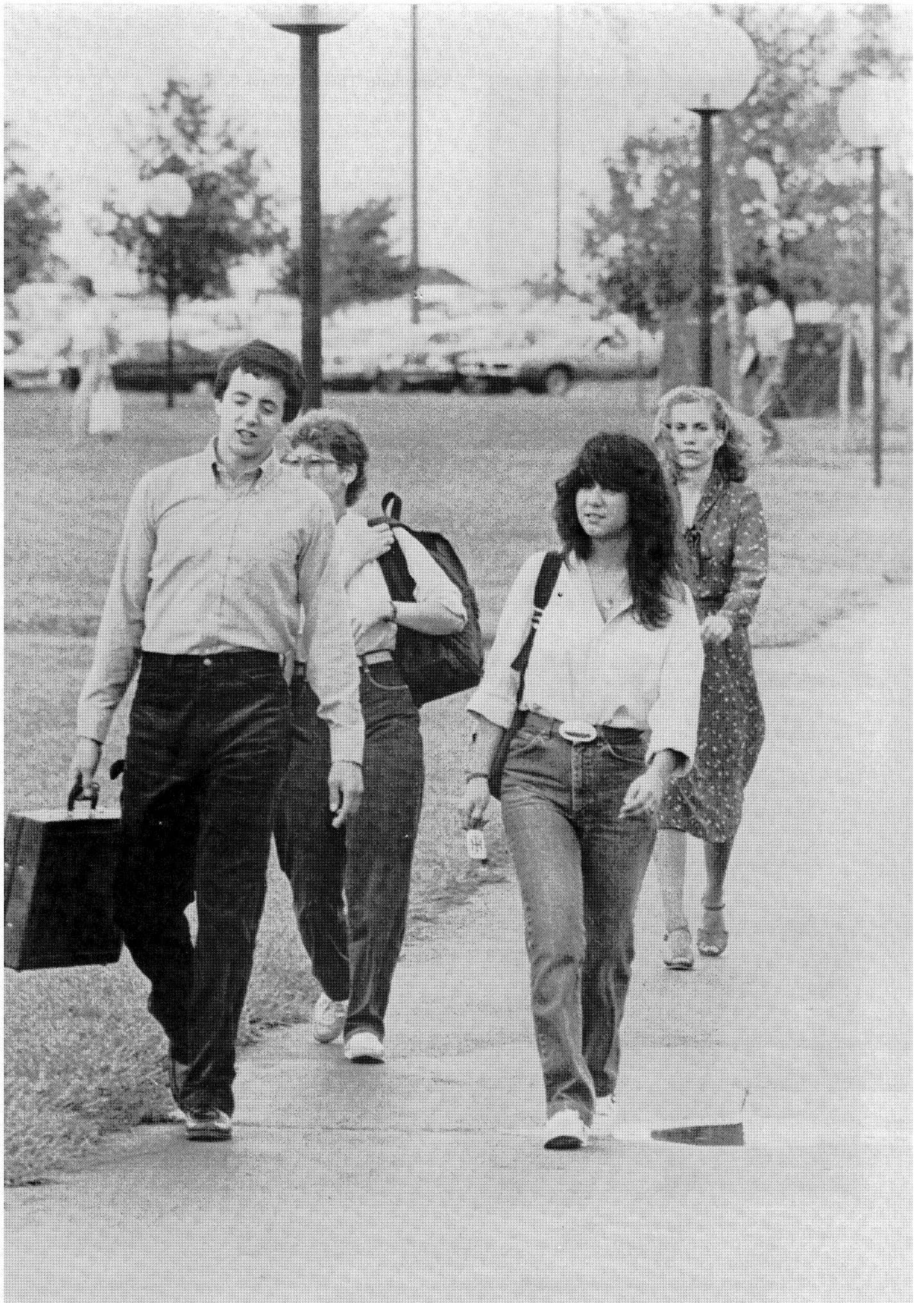
Use of College Facilities

The College encourages community groups to use its facilities for meetings and activities when there is no conflict with College programs. For more information about the use of College facilities contact the Community Services Office.



Arts Council of Johnson County

As part of the mission to serve as a cultural center, the College has assumed leadership in establishing and sponsoring the Arts Council of Johnson County. An office with a part-time administrator is maintained on the campus. Funding assistance is received from the Kansas Arts Commission, National Endowment for the Arts, Johnson County Park and Recreation District and the Johnson County Library. The ACJC board is a coalition of more than 25 organizations representing art, education and business. ACJC provides a quarterly arts calendar and newsletter, workshops, services and information to community arts organizations and facilitates cooperative arts programs.



Staff and Index

A

ADKINS, Jerry
Programmer/Analyst

ALLISON, Charles (Tom)
Instructor/Coordinator,
Electronics/Biomedical Equipment Technology
B.S.E.E., Missouri Institute of Technology
M.S., Pittsburg State University

ALVERS, Jean
Instructor, Psychology
B.S., Eastern Michigan University
M.A., University of Michigan

AXON, Dave E.
Instructor, Speech
B.A., Park College
M.Ed., Pennsylvania State University

B

BACON, Jonathan
Director, Student Development and Counseling
B.A., M.A., Michigan State University

BAGGERLY, Larry C.
Instructor, Speech
B.A., M.A., University of Missouri at Kansas City

BAIRD, Gerald
Vice President, Administrative Services
B.S., M.Ed., Ph.D., University of Nebraska

BALLARD, Judith A.
Instructor, Learning Center
A.B., William Jewell College
M.A., University of Missouri at Kansas City

BARNETT, Thomas M.
Instructor, Physical Science
B.S., M.S., Eastern New Mexico University
Ed.D., North Texas State University

BARNHART, Tim
Art Director/Supervisor, Graphics
B.F.A., Kansas City Art Institute

BATES, Rosemary
Instructor, Equine Studies
B.A., Washburn University

BAUMAN, Anne
Instructor, English
B.A., Fontbonne College
M.A., Loyola University

BAUMAN, Mark
Instructor, German/English
A.B., Benedictine College
M.A., University of Kansas
S.T.L., University of Munich, Germany

BEALS, Stuart
Instructor, Photography
B.A., University of Kansas

BEARDSLEE, Larry
Instructor, Data Processing
A.A., Highland Community Junior College
B.S., Missouri Western State College

BEHBEHANI, Zohreh S.
Instructor, General Business
LL.B., University of Tehran
LL.M., University of Missouri at Kansas City

BENJAMIN, William
Instructor/Coordinator, Fire Protection
B.S., M.S., Central Missouri State University

BEST, Pat
Administrative Services Assistant, Continuing Education

BIRKENHOLZ, Robert
Instructor/Coordinator, Agribusiness
B.S., M.S., Ph.D., Iowa State University

BISHOP, Charles C.
Instructor, Social Science
B.A., Midland College
M.A., University of Kansas

BODNER, Joanne
Program Specialist
B.S., University of Kansas
M.S., Indiana State University

BRAZIL, Shirley J.
Instructor, Art
B.A., Avila College
M.A., University of Kansas

BUCKLEY, Gerard
Program Director, Special Services
B.S.W., Rochester Institute of Technology
for the Deaf
M.S.W., University of Missouri - Columbia

BUCKNER, Virginia
Instructor, Life Science
B.A., Vassar College
M.S., University of Missouri at Kansas City

BURCH, N. Burgess
Instructor, Engineering
B.A., Hendrix College
B.S.C.E., M.S.C.E., University of Arkansas

BURNS, Mary Jane
Instructor, English
B.A., Benedictine College
M.A., University of Missouri at Kansas City

BUTLER, Eugene
Instructor, Vocal Music
B.Mus.Ed., University of Oklahoma
S.M.M., Union Theological Seminary
D.M.A., University of Missouri at Kansas City

BYRUM, Paul
Instructor, Mathematics
B.S., U.S. Naval Academy
M.A.T., Duke University

C

CAFFREY, Margaret M.
Librarian
B.A., St. Mary College
B.L.S., Catholic University of America
M.A., University of Missouri at Kansas City

CAMPBELL, Matthias
Instructor, Theater/Speech
B.A., Park College
M.A., Tulsa University

CARLSEN, Charles J.
President
B.S., M.S., Southern Illinois University
Ed.D., University of Illinois

CARR, Dana E.
Career Planning & Placement Advisor
A.A., Johnson County Community College
B.S.E., University of Kansas

CERRA, Margaret
Instructor, Dental Hygiene
B.S., Marquette University
M.S., University of Missouri at Kansas City

CHATHAM, Wilford
Director, Admissions, Records and Financial Aid
B.A., Loras College

COFFEY, Kenneth
Instructor/Coordinator, Accounting
A.A., Pueblo Junior College
B.A., M.A., Colorado State College

COFFMAN, Bob L.
Manager, Word Production
B.A., Bethany College

COLE, Linda
Specialist, Continuing Education
B.J., M.Ed., University of Missouri - Columbia

COLE, Marsha
Purchasing Agent

COLE, Norma L.
Instructor, Nursing
B.A., M.A., University of Missouri at Kansas City

COPELAND, Cody
Director, Continuing Education
B.S., University of Arizona
M.Ed., University of Wyoming

COURTRIGHT, Madeline
Instructional Assistant, Nursing
B.S.N., Avila College
M.A., University of Missouri at Kansas City

CRAMER, Rebecca
Instructor, Social Science
B.A., State University of New York at Stony Brook
M.A., M.A., University of Iowa

CRAWFORD, Samuel J.
Instructor, Physical Science
B.S., M.S., Emporia State University



CROSSON, Susan
Instructor, Accounting
B.B.A., Southern Methodist University
M.S., Texas Tech University

CUNNINGHAM, Alan
Instructor, Humanities
B.A., Chico State College
M.S.Ed., University of Kansas

CUNNINGHAM, Forrest
Instructor, Electronics
B.S., Bethany Nazarene College
B.S.E.E., M.S.E.E., Naval Postgraduate School

CUNNINGHAM, Melvin C.
Director, Library Services
B.G.S., Municipal University of Omaha
B.S.E., University of Nebraska at Omaha
M.L., Emporia State University



D

DALSING, Max V.

Instructor, Life Science
B.S., M.S., Emporia State University

DARBY, Carolynn

Instructor, Emergency Medical Technology
B.S., Emporia State University

DAVIS, Richard

Specialist, Continuing Education
B.A., B.S., University of Florida
M.Ed., Ed.D., University of Missouri - Columbia

DAYTON, Linda L.

Dean, Student Services
B.S., M.S., Emporia State University

DENNIS, Marcia

Publications Editor
B.J., University of Missouri - Columbia

DEVAULT, Charles

Coordinator, Television
B.F.A., Ohio University
M.A., Kent State University

DOUCETTE, Donald

Director, Institutional Research
B.A., Cornell University
M.A., Ph.D., Arizona State University

DOUGHERTY, Carol

Counselor
B.A., Rockhurst College
M.Ed., University of Missouri - Columbia

DOVER, Mary

Financial Aid Officer
A.A., Kansas City Missouri Junior College

DOWNING, Kristin

Counselor
B.S., M.S., Emporia State University

DRYSDALE, John

Instructor, Hospitality Management
B.A., Michigan State University

DUGGAR, Leon

Instructor, Electronics Engineering Technology
B.S.E.E., Colorado State University
M.S.E.E., Air Force Institute of Technology

DYER, Richard

Director, Budget and Grants
B.B.A., M.B.A., University of Missouri at Kansas City

E

EFFINGHAM, Maria

Instructor, Nursing
B.S., University of Chicago
M.A., University of Missouri at Kansas City

EVANS, David J.

Instructor, Accounting
B.S.C., University of Iowa
M.Ed., University of Nebraska

EVANS, James D.

Instructor, General Business
B.S., Kansas State University
M.S., Emporia State University

EVESLAGE, Roberta

Instructor, Psychology
B.F.A., Texas Christian University
M.A., Ph.D., University of Kansas

F

FONG, Li Ren

Instructor, Mathematics
B.A., National Cheng Chi University
M.S., Fort Hays State University

FOURIER, MARY JO

Instructor, Life Science
B.S., M.Ed., University of Oregon
M.S., University of New Mexico
Ph.D., University of Missouri at Kansas City

FOWLER, John

Instructor, Energy Technology
B.S., University of Nebraska

FRANKLIN, Edward L.

Director, Special Services
B.A., M.S., University of Arkansas

FREEMAN, Virginia

Specialist, Community Services
B.A., University of Kansas
M.S.S.W., University of Missouri - Columbia

G

GABERT, Glen

Associate Dean, Planning and Human Resources

B.A., Illinois Benedictine College

M.A., University of Notre Dame

M.B.A., Rockhurst College

Ph.D., Loyola University of Chicago

GANGEL, Carolyn

Instructor, Nursing

A.A., Johnson County Community College

B.S.N., University of Kansas

GARVEY, Sean

Manager, Operations (D.P.)

A.A., Kansas City Kansas Community College

GENTRY, Harry

Instructor, Data Processing

A.B., San Francisco State College

M.S., U.S. Naval Postgraduate School

GEORGE, Dennis

Instructor, Life Science

B.S., Rockhurst College

M.A., University of Missouri at Kansas City

GERSON, Steven M.

Instructor, English

B.A., University of Texas

M.A., Southwest Texas State University

Ph.D., Texas Tech University

GILL, Barbara

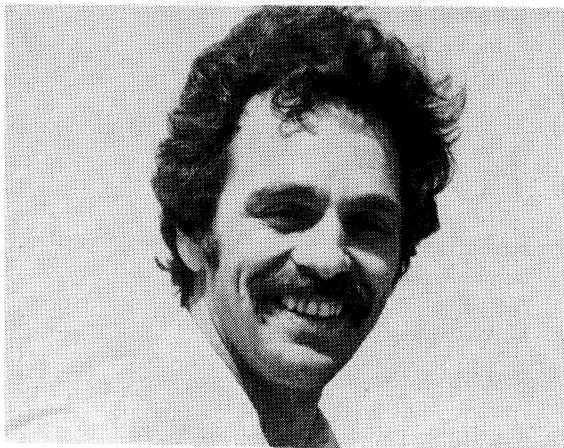
Instructor/Coach

B.S., M.S., Baylor University

GIOIOSA, Ann

Instructor, Medical Records Technology

B.S., M.S., St. Louis University

**GRATTON, Kevin**

Instructor, Physical Science

A.B., Rockhurst College

Ph.D., University of Kansas

GREGORY, Orville

Director, Physical Development and Athletics

B.S., Northeast Missouri State College

M.A., University of Missouri - Columbia

GREVE, Marilyn

Executive Secretary to the President

GROOTERS, Lyle

Coordinator, Resource Center

B.A., Iowa State Teachers College

M.A., Long Beach State College

M.A.L.S., University of Wisconsin - Madison

Ed.D., University of Oklahoma

GUSTAFSON, Bret

Photographer

A.A.S., Rochester Institute of Technology

H

HAAS BROWN, Susan

Instructor/Coach

B.S., Kansas State University

HALLIGAN, John, Jr.

Instructor, English

B.A., M.A., Duquesne University

Ph.D., University of Pittsburgh

HAMANN, Arthur A.

Instructor, Psychology

B.A., Cornell College

S.T.B., Boston University School of Theology

M.A., Boston University

Ph.D., University of Missouri at Kansas City

HAMILTON, Carole

Counselor

B.A., Ottawa University

M.S.E., University of Kansas

HAMMACK, Roy

Instructor, Physical Science

B.S., M.S., Ed.S., Pittsburg State University

HANSEN, Steve

Instructor, Data Processing

A.A., Metropolitan Junior College

B.A., M.S., University of Missouri at Kansas City

HARP, Harold

Instructor, English

B.S., M.A., Central Missouri State College

HAUN, Gene

Director, Facilities Planning & Management
B.S., Emporia State University

HENDRICKS, J. Willard

Systems Consultant
B.S., University of Illinois

HENNINGTON, Jack L.

Instructor, Mathematics
B.S., Emporia State University
M.S., University of Kansas

HENTZEN, Joseph M.

Manager, Bookstore

HICKERSON, William

Instructor, Energy Technology
A.A.S., B.S.T., University of South Dakota at
Springfield

HICKS, Ronald D.

Instructor, Art
B.S., M.S., Pittsburg State University

HICKS, Shirley

Instructor, Nursing
B.S.N., Marymount College
M.S., Emporia State University

HILL, David E.

Instructor/Coordinator, Drafting/Pre-Engineering
B.S., M.S., Emporia State University

HILL, Karla

Manager, Programming
A.A., Johnson County Community College

HOWARD, Jean M.

Instructor, Art
B.F.A., M.F.A., Ed.D., University of Kansas

HUNT, Robert

Instructor, Physical Science
B.S.Ed., University of Kansas
M.S., M.S., Rensselaer Polytechnic Institute

I**IZARD, Mary Beth**

Instructor, General Business
B.S., Indiana State University
M.B.A., University of Missouri at Kansas City

J**JACK, H. Eugene**

Instructor, Physical Science
B.S., M.S., Pittsburg State University

**JACKSON, James W.**

Instructor, Humanities
B.A., Arkansas Polytechnic College
M.Ed., University of Arkansas
Ed.D., University of Kansas

JACKSON, Marilyn A.

Instructor, Social Science
A.B., A.M., M.S., Indiana University

JAMESON, Beverly

Instructor/Coordinator, Data Processing
A.A., Johnson County Community College
B.S., M.S.Ed., University of Kansas

JARVIS, Richard

Supervisor, Safety & Security
A.A., Johnson County Community College
B.A., Avila College
M.A.J., Wichita State University

JOHNSON, Paula

Math Resource Center Assistant
A.A., Longview Community College
B.S., University of Missouri at Rolla

JOINER, Barbara

Instructor, Nursing
B.S.N., University of Toronto

K**KADEL, Carolyn**

Instructor, Social Science
A.B., Elmira College
M.A.T., Brown University

KALMAN, Nancy A.

Instructor, Life Science
B.A., M.S., University of Iowa
Ph.D., University of Kansas

KANDA, Janice*Instructor/Coordinator, Special Services*

A.S., Dallas Baptist College

B.S., West Texas State University

M.Ed., Texas A&M University

KARL, Norman H.*Instructor/Coordinator, Marketing & Management*

B.A., Wartburg College

M.A., University of Northern Colorado

KARNAZE, William C., Jr.*Instructor, Physical Science*

A.A., Kansas City Kansas Community College

B.A., M.A., University of Kansas

KIM, Kyong-Mal*Instructor, Economics/Business*

B.S., Nihon University

M.A., California State University

Ph.D., Union Graduate School

KINCAID, Juliet*Instructor, English*

B.A., Marshall University

M.A., University of Colorado

Ph.D., Ohio State University

KINDERMANN, Maurice E.*Instructor, Physical Science*

B.A., University of Missouri at Kansas City

KIRCHNER, Landon*Director, Humanities & Social Science*

A.S., Flint Junior College

A.B., A.M., University of Michigan

KLARNER, Walter E., Jr.*Instructor, English*

B.A., College of Emporia

M.S., Emporia State University

KRAUSE, Nancy L.*Instructor, Learning Center*

B.S., Central Missouri State College

M.A., University of Missouri at Kansas City

KREBS, Frederick A.*Instructor, Social Science*

B.A., University of Kansas

M.A., University of Missouri at Kansas City

KREBS, Virginia W.*Director, Community Services*

B.S., University of Denver

KREHBIEL, Lyle*Instructor, Electronics*

B.S.E.E., Kansas State University

M.S.E.E., M.A., University of Missouri - Kansas City

KUEHN, William E.*Supervisor, Custodial*

B.S., Concordia Teachers College

KUO, Jane*Programmer*

B.A., Soochow University, Taiwan

M.A., University of Kansas

KURKI, Allan W.*Vice President, Academic Affairs*

B.S., St. Louis University

M.B.A., M.S., University of Pittsburgh

Ed.D., University of Kansas

KUROGI, Dennis*Instructor/Coordinator, Emergency Medical**Technology***L****LANG, Billie***Instructor, Life Science*

B.S., Mississippi College

M.S., Ph.D., University of Mississippi

LANGLEY, R.E. "Budd"*Instructor, Drafting***LAWYER, Darwin***Counselor*

A.A., Estherville Junior College

B.A., Northwest Missouri State

M.Ed., University of Missouri - Columbia

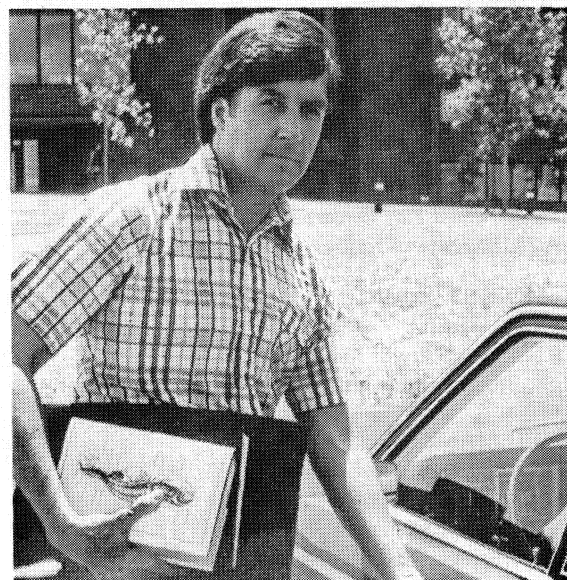
LECLUYSE, Joseph*Admissions & Records Officer*

B.S.W., University of Kansas

LERNER, Marlene*Instructor/Coordinator, Journalism*

B.A., University of Arizona

M.A., Northern Illinois University



LONBORG, W. Dane
Associate Dean, Community Education
B.S., University of Kansas
A.M., University of Northern Colorado

LOSSING, Jir.
Instructor, Data Processing
B.A., Western New Mexico University
M.A., M.S., University of Arizona

LOZANO, William A.
Instructor, Humanities
A.B., M.A., Wayne State University
Ph.D., Michigan State University

M

MacDOWELL, Arden
Instructor, Special Services
B.S., Gallaudet College
M.Ed., Western Maryland College

MACKKEY, Wayne
Instructor, Mathematics
B.A., M.S., University of Arkansas

MATTHEWS, Elizabeth
Instructor, Dental Hygiene
B.S., Indiana University of Pennsylvania
M.S., University of Missouri at Kansas City

MAYNARD, R. T.
Instructor/Coach
B.A., Southwestern College
M.S., Oklahoma State University

McCARTHY, Ed
Director, Auxiliary Services

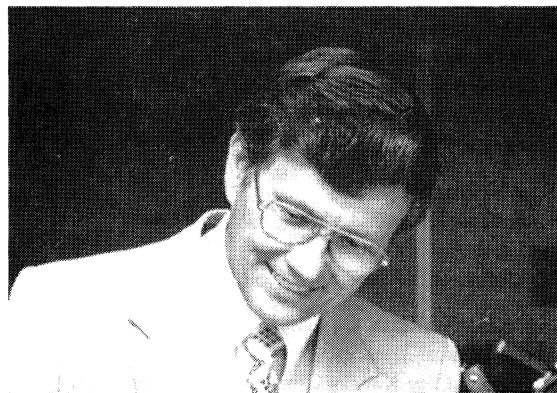
McCARTY, Lisa
Data Specialist
B.S., Central Missouri State University

McCRILLIS, Joan
Instructor, Fashion Merchandising
B.S., M.S., Kansas State University

McELHENNY, Sara
Manager, Child Play Center
B.A., University of Kansas

McMORRIS, Sylvia
Instructor, Nursing
B.S.N., University of Kansas
M.S., Emporia State University

McWILLIAMS, Mickey
Director, Engineering and Technology
B.S., Wayne State University
M.A., Eastern Michigan University
Ed.S., Michigan State University



METTENBURG, Alfred J.
Instructor, Administration of Justice
B.S., University of Missouri - Columbia

MILLS, Larry
Instructor, ABE/GED
B.S., Central Missouri State University
M.S., University of Missouri at Kansas City

MNICH, Wayne
Instructor, Special Services
B.S., Gallaudet College

MOSER, Glen
Instructor/Coach
B.S., M.S. Bowling Green State University

MULLINS, Ralph
Instructor, Automotive Technology
A.B., Harris Teachers College

N

NEPTUNE, Carolyn
Instructor, Mathematics
B.S., M.S., Purdue University

NETTLESHIP, Lois
Instructor, Humanities
A.B., Sarah Lawrence College
M.A., Columbia University
Ph.D., University of Sussex

NICHOLS, Marilou
Program Assistant, Community Services

NICHOLS, Penny
Counselor
B.S., Indiana State University
A.M., West Virginia University

O

OETTING, Ronald H.
Instructor, Mathematics
B.S., Central Missouri State University
M.A., Louisiana State University

OLMSTED, Leland
Instructor, Electronics/Biomedical
B.S.E.E., University of Missouri - Columbia

P

PARKHURST, Harry
Counselor
B.S., Southwest Missouri State
M.Ed., University of Missouri - Columbia

PENER, Michael
Instructor/Coordinator, Paralegal Program
A.B., University of Missouri at Columbia
J.D., L.L.M., University of Missouri at Kansas City

PENNELL, Recie
Instructor, Dental Hygiene
B.S., University of Missouri at Kansas City

PENNISTON, Lloyd
Television Engineer

PERRY, Robert
Instructor, Social Science
B.A., Northwestern University
M.A., University of California

PETERMEYER, Peggy
Instructor, Nursing
B.S.N., Kent State University

PISCIOTTA, Jack
Audio-Visual Specialist

PRATER, Robert
Director, Accounting Services
B.S.B.A., M.B.A., Central Missouri State College

PROFFER, Doug
Instructor, Mathematics
B.S., M.S., West Texas State University

R

RADAKOVICH, Dan
Dean, Instruction
B.A., M.A., Ed.D., University of Wyoming

RAMSEY, Robert W.
Instructor, Mathematics
A.S., Metropolitan Junior College
B.S., University of Missouri - Columbia
M.A., Central Missouri State University

RANDOLPH, Richard J.
Instructor, General Business
B.S., University of Kansas
M.A., George Washington University

RECHTFERTIG, Lawrence
Instructor, Marketing and Management
B.A., University of North Iowa
M.Ed., Colorado State University

REGO, Steven
Television and Cable Technician

REUBER, Harold
Counselor
A.B. Drury College
M.A., University of Missouri at Kansas City

RIDINGER, Harriet
Coordinator, Equine Studies
B.S., M.S., Southern Illinois University

ROCHELLE, Lawrence J.
Instructor, English
B.Ed., Ed.S., University of Toledo
M.A., University of Dayton

ROLING, Sharon
Librarian
A.A., Cottey College
B.S., University of Iowa
M.L.S., Emporia State College

ROSENSHIELD, Liliane N.
Instructor, French
License, "La Sorbonne," M.A., University of Paris

RUSSELL, John W.
Librarian
B.A., Trenton State College
M.S., Syracuse University
M.B.A., Kansas State University

S

SAMUELSEN, Sam
Director, Data Processing Services
B.S., U.S. Naval Academy
M.S., Georgia Institute of Technology

SCHELOSKI, Peggy Y.
Instructor, Secretarial
B.S.E., Pittsburg State University
M.S., Central Missouri State College

SCHORY, Karen
Instructor, Commercial Art
B.F.A. Kutztown State College
M.F.A. Rochester Institute of Technology

SCHRICK, Sharon
Instructor/Coordinator, Fashion Merchandising
B.A., Benedictine College
M.S., Emporia State University

SCHROEDER, Pat
Instructor, Physical Science
B.S., Iowa State University
M.S., University of Arkansas

SCOTT, Betty

Instructor/Coordinator, Secetarial Careers
B.S., M.Ed., Central State University

SEYBERT, Jeffrey

Research/Evaluation Specialist
B.A., California State College at Long Beach
M.S., Ph.D., University of Oklahoma

SEYLER, Cynthia

Project Coordinator, Special Services
B.S.W., Dana College

SHANKEL, Carolyn M.

Instructor, Accounting
B.S., M.S., Pittsburg State University

SHILLING, Paul

Director, Natural & Health Related Sciences
B.A., Ph.D., Ohio State University

SHIVELY, Sherry

Instructor, Accounting
B.A., Metropolitan State College

SHOPPER, Albert

*Instructor/Coordinator,
Metals Fabrication/Manufacturing Technology*
B.S., Central Missouri State College
M.S., Central Missouri State University

SHORT, Trudy

Coordinator, Dental Hygiene
B.S., University of Nebraska
M.S., Northern Illinois University

SKAGGS, Jesse

Counselor
B.A., B.Th., Kansas City College and Bible
School
M.A., University of Missouri at Kansas City

SKUBAL, John A., Jr.

Manager, Campus Services
B.S., Emporia State University

SMITH, B. Jean

Instructor, Secretarial
A.A., Hutchinson Community Junior College
B.S., Emporia State University

SMITH, Barbara A.W.

Director, Public Information
B.A., McNeese State University
M.S., Oklahoma State University

SMITH, James E.

Instructor, Instrumental Music
B.Mus., M.S., Pittsburg State University

SNEAD, Carl

Television Producer/Director
B.S., University of Kansas

SNYDER, Glen

Instructor, Construction/Maintenance
B.S., Oklahoma State University

SNYDER, Jacqueline

Director, Staff Development
A.A., Kansas City Kansas Community College
B.S., Emporia State University
M.S., University of Kansas

STAFFORD, Rodney

Instructor/Coordinator, Automotive Technology
A.A.S., B.S., M.S., State University of New York

STINE, Richard

Instructor, Speech/Debate
B.S., M.S., Emporia State University

STITES, Glenna

Manager, Personnel
B.S., Columbia University
M.A., University of Missouri at Kansas City

STONE, Roger

Instructor, Automotive Technology
B.S., M.S., Central Missouri State College

SUSTRICK, Carol M.

Instructor/Coordinator, Medical Records Technology
B.A., College of St. Scholastica

SUTTON, Hugh C.

Instructor, Mathematics
B.S., Texas A&M University
M.S., Louisiana Polytechnic Institute
M.A., Calvary Bible College

SWANDER, Lynda

Instructor, Life Science
B.S., Wittenberg University
M.A.Ed., Western Michigan University

SWEENEY, Patrick

Instructor, Hospitality Management

T**TARNOWSKI, Thomas G.**

Instructor, Photography
B.A., University of South Florida
M.F.A., Rhode Island School of Design

TARSON, Rebecca

Chef/Manager
B.S., Iowa State University
M.B.A., University of Missouri at Kansas City

TAYLOR, Mary Lou

Coordinator, Nursing Program
B.S., Drury College
M.A., University of Missouri at Kansas City

TEBBE, Paul L.

Instructor, Physical Science
 A.B., M.A., Spring Hill College
 M.A., Georgetown University

TEEL, Marion E.

Instructor, Life Science
 B.A., Nebraska State College
 M.S., Emporia State University

TEICHGRAEBER, Erma

Instructor, English
 A.B., Kansas State College of Pittsburg
 M.A., Kansas State University

TERRY, Jeannette

Manager, Career Planning and Placement Center
 B.A., M.A., University of Kansas

TRAVER, Roger

Instructor, General Business
 B.A., Illinois Wesleyan University
 M.B.A., Washington University

V**VINCENT, Jerry**

Instructor/Coordinator, Hospitality Management
 B.S., Oklahoma State University
 M.S., Central Michigan University

VOMHOF, James P.

Director, Business & Economics
 B.S., M.A., University of Minnesota

W**WADSWORTH, Dorothy**

Instructor, Commercial Art
 B.F.A., Wichita State University
 B.A.E., University of Kansas
 M.F.A., Wichita State University

WALLACE, Sharyl L.

Director, JCCC Foundation
 B.A., University of Missouri at Kansas City

WALTER, Nora

Instructor, Nursing
 A.A., Johnson County Community College
 B.S.N., Avila College
 B.S., M.N., University of Kansas

WASSON, Gayle David

Instructor, Marketing & Management
 B.S., M.S., Central Missouri State College

WAUGH, Michael

TV Producer/Director
 B.S., M.S., University of Kansas

WEBER, Irene

Interpreter/Specialist

WEGMAN, Philip J.

Coordinator, Testing/Assessment
 B.A., Benedictine College
 M.S., Kansas State University
 Ed.S., University of Missouri at Kansas City

WEST, Sally B.

Instructor, Dental Hygiene
 A.S., Pensacola Junior College
 B.S., Armstrong State College
 M.S., Columbia University

WILHELM, Don C.

Instructor/Coach
 B.S., M.S., Emporia State University

WILKINSON, Judith

Instructor, Nursing
 A.A., Johnson County Community College
 B.S.N., Graceland College
 M.A., University of Missouri at Kansas City

WILLIAMS, Edwin

Data Base Specialist
 B.M.E., University of Santa Clara
 M.S., University of Southern California

WILLIAMS, James

Director, Communications
 B.S., M.A., Emporia State University

WILLIAMS, Marilyn

Instructor, Paralegal
 B.S., University of Kansas
 M.L.S., Emporia State University
 J.D., University of Missouri at Kansas City

WILLIS, Margaret

Instructor, Nursing
 B.S.N., University of Virginia
 M.A., University of Missouri at Kansas City

WILSON, Nan

Instructor, General Business
 B.A., Wellesley College
 M.P.A., University of Kansas

WOLFSKILL, Jerry

Instructor/Coordinator, Police Academy
 B.S., Central Missouri State College
 M.S., Central Missouri State University

WOOD, Martin

Director, Student Activities
 B.S., M.S., Emporia Kansas State College

WOODS, Robin

Instructor, Nursing
 B.S.N., Pittsburg State University

WRIGHT, Ray

Instructor, E.M.I.C.T.

WUTHNOW, Diane

Instructor, Dental Hygiene
 B.S., M.S., University of Missouri at Kansas City

X

XIDIS, Kathleen

Instructor, Social Science

B.A., St. Mary's College

A.M., Ph.D., Indiana University

XIDIS, Robert D.

Instructor, English

B.A., University of Kansas

A.M., Indiana University

Ph.D., University of Kansas



Y

YEARGAIN, Scott

Instructor, Humanities

A.B., A.M., Ph.D., University of Missouri
at Columbia

YOUNG, Gay Ann

Instructor, Administration of Justice

B.A., Central Missouri State University

M.A., University of Missouri at Kansas City

YOUNG, Marsha

Manager, Academic Data Processing

A.A., Johnson County Community College

Z

ZARRELLI, Charles

*Instructor/Coordinator, Construction and
Maintenance Technology/Energy Technology*

B.A., University of Houston

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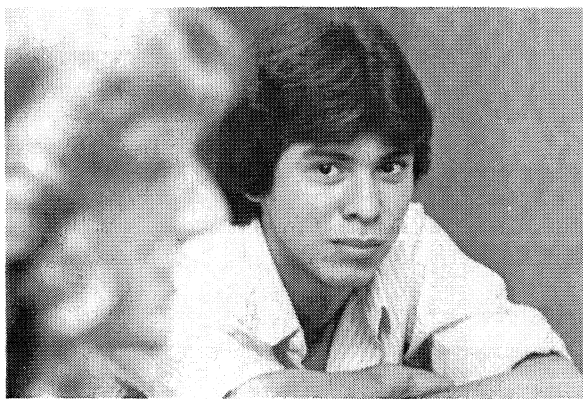
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