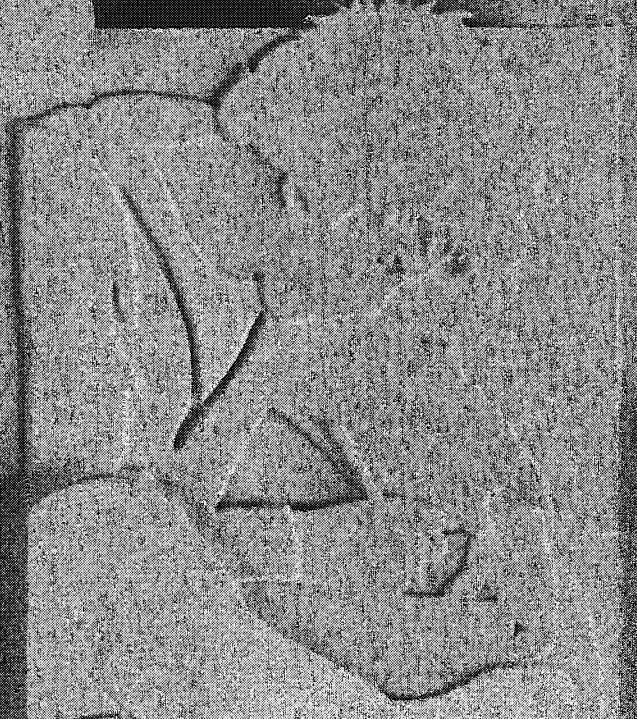
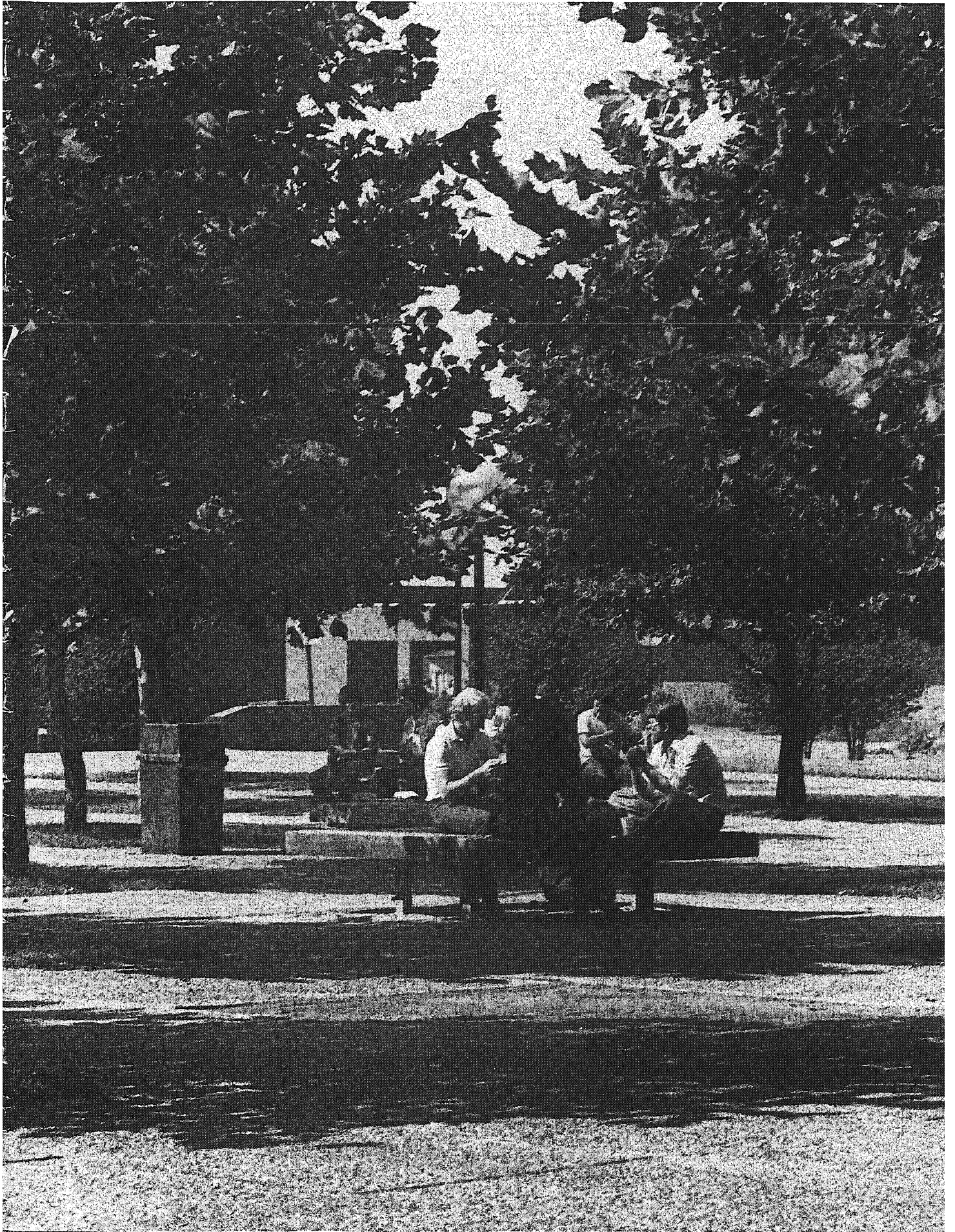


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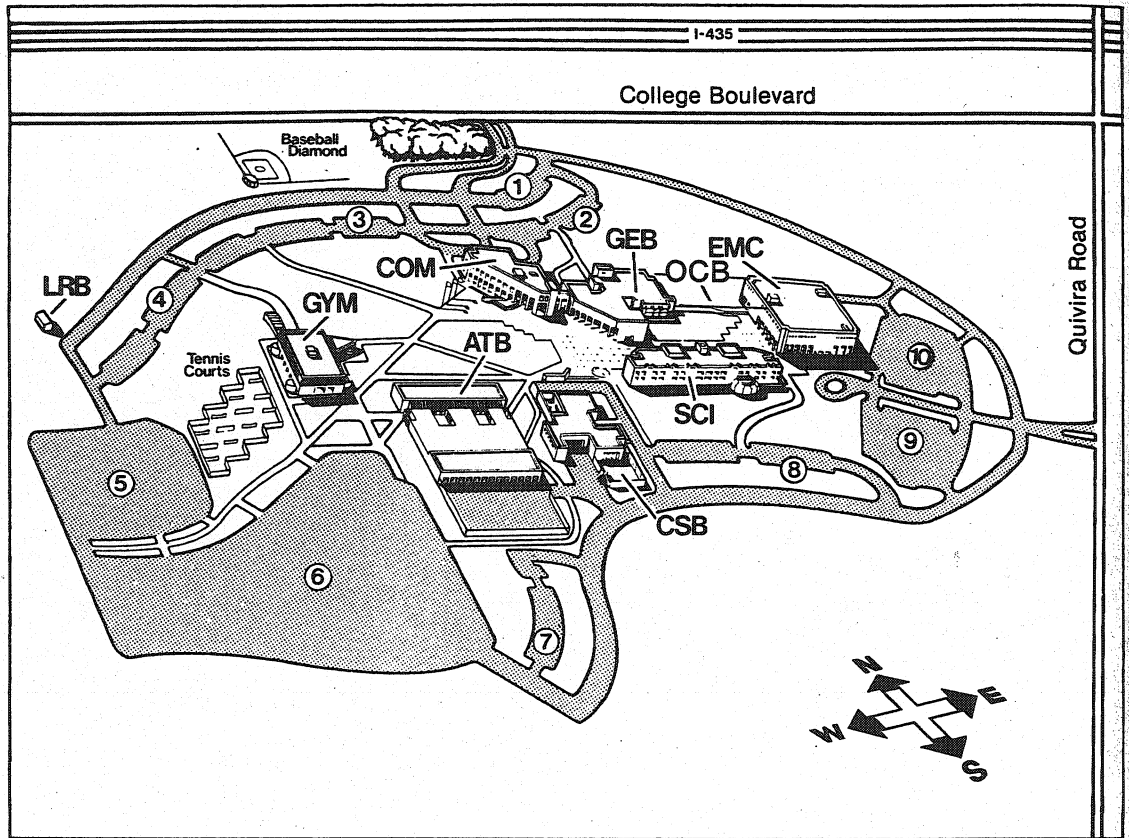


JOHNSON COUNTY  
COMMUNITY COLLEGE









# JCCC CAMPUS MAP

**JOHNSON COUNTY  
COMMUNITY COLLEGE**

**GEB** General Education Building

**COM** College Commons

**EMC** Educational Media Center

**SCI** Science Building

**ATB** Arts and Technology Building

**GYM** Gymnasium

**CSB** Campus Services Building

**LRB** Little Red Barn

**OCB** Office and Classroom Building



# CATALOG 1984-85

**JOHNSON COUNTY  
COMMUNITY COLLEGE  
12345 COLLEGE AT QUIVIRA  
OVERLAND PARK, KANSAS 66210-1299**

## **NOTICE OF NON-DISCRIMINATION**

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

## ***This catalog becomes effective July 1, 1984***

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

© 1984 JOHNSON COUNTY COMMUNITY COLLEGE





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

**A COMMUNITY COLLEGE BY DESIGN IS MORE DYNAMIC...**

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

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

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

JCCC is located at the intersection of College Boulevard and Quivira Road in Overland Park, Kansas, in suburban Kansas City.

Sincerely,

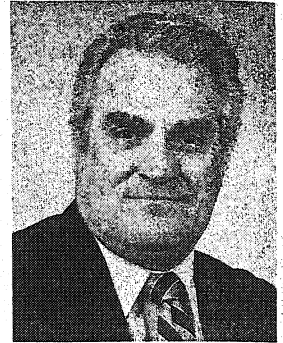
*Charles J. Carlsen*

Charles J. Carlsen  
President  
Johnson County Community College

**BOARD OF TRUSTEES**



John "Jack" Cramer



Floyd Huggins



Jean Hunter



Susan Lindsay



Carol Sader



Dr. Hugh Speer

**ABOUT THE COLLEGE**

**History**

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

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

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

In July of 1963, the Board of County Commissioners of Johnson County appointed a committee of



18 residents to explore the feasibility of a county community college. Their study and research was expressed in a unanimous recommendation in December 1966 that the college be established.

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

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

Four months later the 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 62,000 square foot Arts and Technology Building was added in 1981 and a 60,000 square foot Office and Classroom Building in 1984.

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

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

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

### **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.

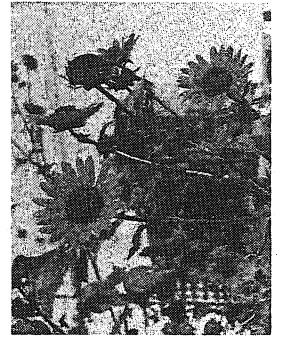
### **KCRCHE**

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.

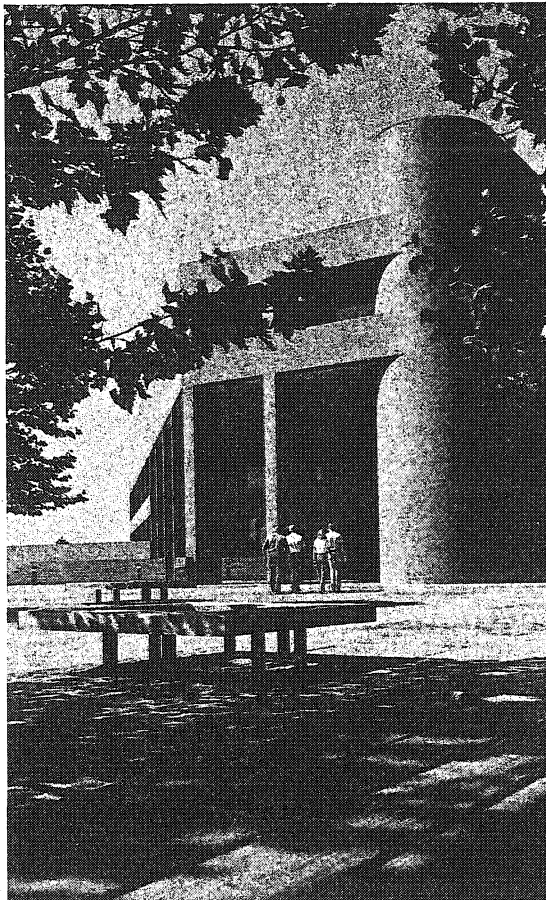
### **Accreditation**

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



*This year JCCC is celebrating both its 15th year of operation and the opening of the new Office and Classroom Building!*

*JCCC is fully accredited by the North Central Association of Colleges and Schools.*



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

For information about special events and activities for students, visit the Student Information Desk in the College Commons.

## ACADEMIC CALENDAR

### SUMMER SESSION 1984

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

### FALL SEMESTER 1984

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

### SPRING SEMESTER 1985

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

### SUMMER SESSION 1985 REGULAR AND SESSIONS

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



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# ADMISSIONS

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

## ADMISSIONS PROCEDURES

### Can anyone go to Johnson County Community College?

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

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

### How do I apply for admission?

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

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

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

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

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

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

**6. Attend the reading, math and English assessment session.** You will need to attend an assessment session in the Testing/Assessment Center. The assessment will indicate your level of skills in English, reading and math. The reading assessment is

25 minutes long, the writing assessment is 40 minutes long and the math assessment will require 20-30 minutes to complete. If you are enrolling in your first English or math course at JCCC, you are required to take the appropriate assessment test in the Testing/Assessment Center.

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

### If you previously attended JCCC...

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

## OTHER INFORMATION

### How much will my textbooks cost?

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

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

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

### Does JCCC offer summer sessions?

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

## SPECIAL STUDENTS AT JCCC

### Foreign Students

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

- ▶ June 1, if you are applying for fall semester
  - ▶ Oct. 1, if you are applying for spring semester
  - ▶ March 1, if you are applying for summer session
- You also must take the Test of English as a Foreign Language (TOEFL).

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

### Resident Aliens

JCCC is required by federal law to enroll non-immigrant alien students. You must establish your status as a resident alien when you apply by providing your Resident Alien card number. You also are required to meet with a counselor for academic evaluation and course placement after completing a

*You are responsible for scheduling your own classes. Be sure to check for time conflicts.*



*JCCC's tuition and fees are only \$20.50 per credit hour for Kansas residents. For more information see page 11.*



JCCC English as a Second Language assessment test. The director of Admissions, Records and Financial Aid will determine the final evaluation and admission of resident alien students.

### COLLEGE NOW: College Credit Programs for High School Seniors

JCCC's COLLEGE NOW program offers two options for high school students who want to earn college credit while they are still in high school:

► High school students who have completed at least 15 credits are eligible to enroll concurrently in classes at JCCC with the approval of their high school counselor or principal.

► High school students enrolled in high school honors classes can earn college credit for many of those classes. A new agreement among area high schools, JCCC and the University of Kansas identifies specific high school honors courses that qualify for college credit.

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

### Disabled Students

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

## REGISTRATION

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

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

After your questions have been answered and your plan developed you are ready to register. The exact time and day you must register will be 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 . . . . .	\$18.00 per semester credit hour
Commons fee . . . . .	\$1.50 per semester credit hour
Student Activity fee . . . . .	\$1.00 per semester credit hour
<b>TOTAL PER CREDIT HOUR . . . . .</b>	<b>\$20.50</b>

### Out-of-state and foreign students:

Tuition . . . . .	\$60.00 per semester credit hour
Commons fee . . . . .	\$1.50 per semester credit hour
Student Activity fee . . . . .	\$1.00 per semester credit hour
<b>TOTAL PER CREDIT HOUR . . . . .</b>	<b>\$62.50</b>

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

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

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

### Is it possible to register after classes begin?

You may register late for classes but you will be charged a \$10 late registration fee.

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

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

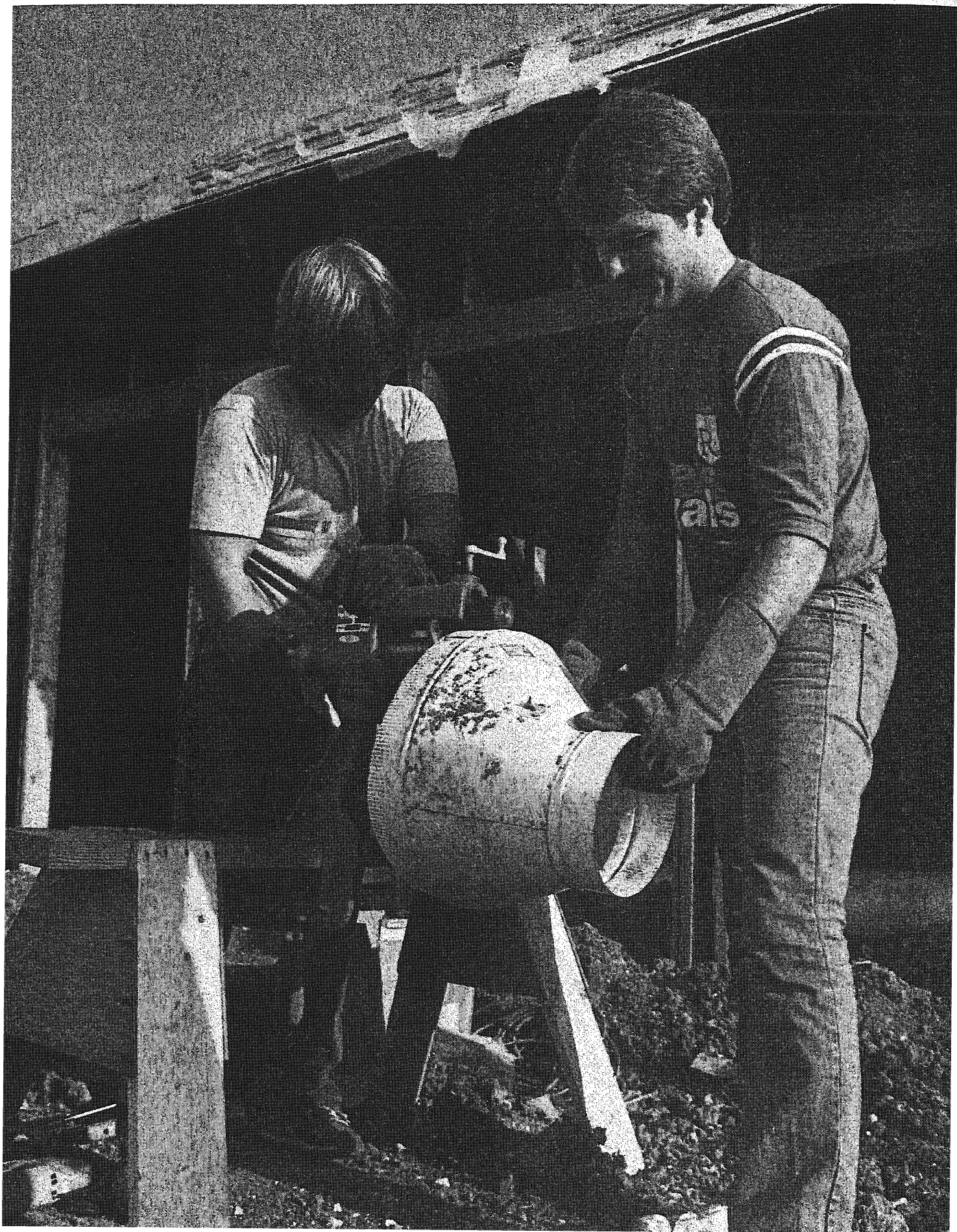
- 100% of tuition and fees paid if your withdrawal is processed by the Admissions/Records Office **before** — but not on — the first day of the semester, term or session;
- 80% of tuition and fees paid if your withdrawal is processed by the Admissions/Records Office:
  - within two weeks after the beginning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

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



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







# ***FINANCIAL AID***

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

## FINANCIAL AID

### Does JCCC offer financial aid to its students?

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

### How is financial need determined?

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

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

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

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

### How do I apply for financial aid?

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

### How will I know if I am awarded financial aid?

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

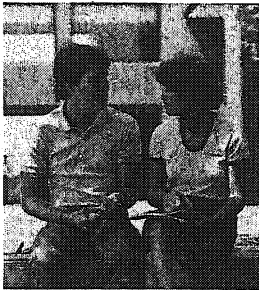
### What types of aid are available?

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

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

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

*Although JCCC's tuition is low, extensive financial aid programs are available to both full-and part-time students.*



*JCCC is the fourth largest institution of higher education in Kansas, eclipsed only by the University of Kansas, Kansas State and Wichita State.*

- **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 will vary with the position and pay checks are issued on the College's regular pay dates.

### When will I receive the funds?

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

There are no tuition waivers or partial payment plans. If your aid is not enough to pay what you owe, you must pay that balance at that time.

If you have not signed and returned your offer of financial assistance, you must pay for your tuition and fees according to the payment policy.

### Satisfactory Academic Progress Policy for Financial Aid Recipients

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

JCCC has developed a standard for evaluating your effort to achieve an educational goal at JCCC which all recipients of student financial assistance, including federal assistance and institutional-based assistance, must meet.

**What is "satisfactory progress?"**

All full-time (12 credit hours or more) students must maintain these standards to be eligible for financial aid:

Maximum No. of Semesters	Minimum No. of Total Hours	Minimum Cumulative GPA
1	8	1.0
2	16	1.2
3	24	1.4
4	32	1.6
5	40	1.7
6	48	1.8
7	56	1.9
8	64	2.0

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

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

**What is "financial aid probation?"**

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

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

**What is financial aid exclusion?**

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

**What happens to financial aid if I withdraw?**

If you do not successfully complete any credit hours you automatically will be placed on financial aid exclusion and can be placed on financial aid probation only by appeal.

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

**How often can you change programs?**

A change of program is a change of educational goal toward a degree, certificate or transfer program that requires different courses.

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

**How do you appeal discontinuation of financial aid?**

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

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

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

**Veterans**

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

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

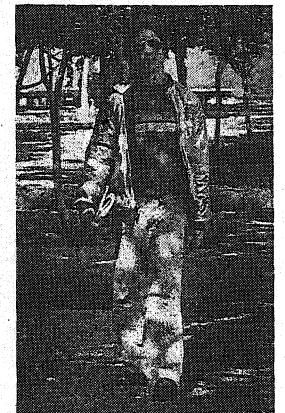
Credit Hours Enrolled*	You Will Be Eligible For:
12 or more semester hours . . . . .	full time benefits
9-11 semester hours . . . . .	3/4 time benefits
6-8 semester hours . . . . .	1/2 time benefits
1-5 semester hours . . . . .	tuition and fees

\*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.

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

*If you are enrolled in 15 credit hours or more, it is recommended you work no more than 20 hours a week.*



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





# **ACADEMIC INFORMATION**

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

## ACADEMIC INFORMATION

### ATTENDANCE

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

### COURSES BY ARRANGEMENT

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

### INDEPENDENT STUDY

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

### TRAVEL FOR CREDIT

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

### INTERNATIONAL EDUCATION

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

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

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

### ADVANCED STANDING CREDIT

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

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

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

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

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

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

• **Credit transferred from other colleges:** You may 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

*A program plan is a list of all the courses you must take to fulfill graduation requirements at JCCC.*



*You may park anywhere on campus except in those areas set aside for the handicapped.*



States Association of Colleges and Schools, Northwest Association of Schools and Colleges, Southern Association of Colleges and Schools — Commission on Colleges, and the Western Association of Schools and Colleges. For information concerning the acceptance of transfer credits, contact the director of Admissions/Records.

**KCRCHE**

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

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

**GRADING SYSTEM**

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

**Regular Grading System**

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

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

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

**Grade Point Average**

- A** = 4 grade points per semester credit hour
- B** = 3 grade points per semester credit hour
- C** = 2 grade points per semester credit hour
- D** = 1 grade point per semester credit hour
- F** = 0 grade point per semester credit hour

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

**HONORS**

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

**ACADEMIC PROGRESS**

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

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

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

**ASSOCIATE OF ARTS DEGREE (Requirements prior to Fall 1985)**

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

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

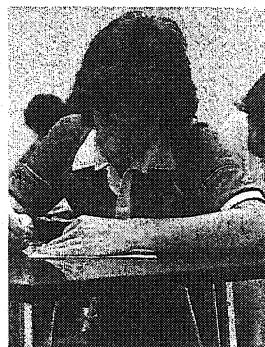


*In 1983, 85 percent of JCCC's students gave their instructors an "A" in quality of instruction.*

*A new computer system has made enrollment and business record keeping more "user friendly."*

## NEW DEGREE REQUIREMENTS

JCCC's new degree requirements are based on the belief that students who receive a degree should be able to think and to communicate clearly both orally and in writing; to use mathematics; to understand more than one narrow interest area; to be aware of their culture and of other cultures and times; to understand themselves and to solve problems; and to gain enough depth in some field to contribute to society.



If you are working full time and taking evening courses, it is recommended you take two to three courses at the most.

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

### General Requirements for the Associate Degree:

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

### Associate of Arts Degree Requirements:

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

### Associate of Science Degree Requirements

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

### Associate of Technical Arts Degree Requirements

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

Science and/or Mathematics . . . . . 3 hours  
Health and/or Physical Development . . . . . 1 hour

For additional information concerning degrees and requirements, contact a JCCC counselor.

### INTENT TO GRADUATE

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

- ▶ Nov. 1 for fall graduation
- ▶ 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. Commencement will be held only once a year in May. All graduates will be encouraged to participate.

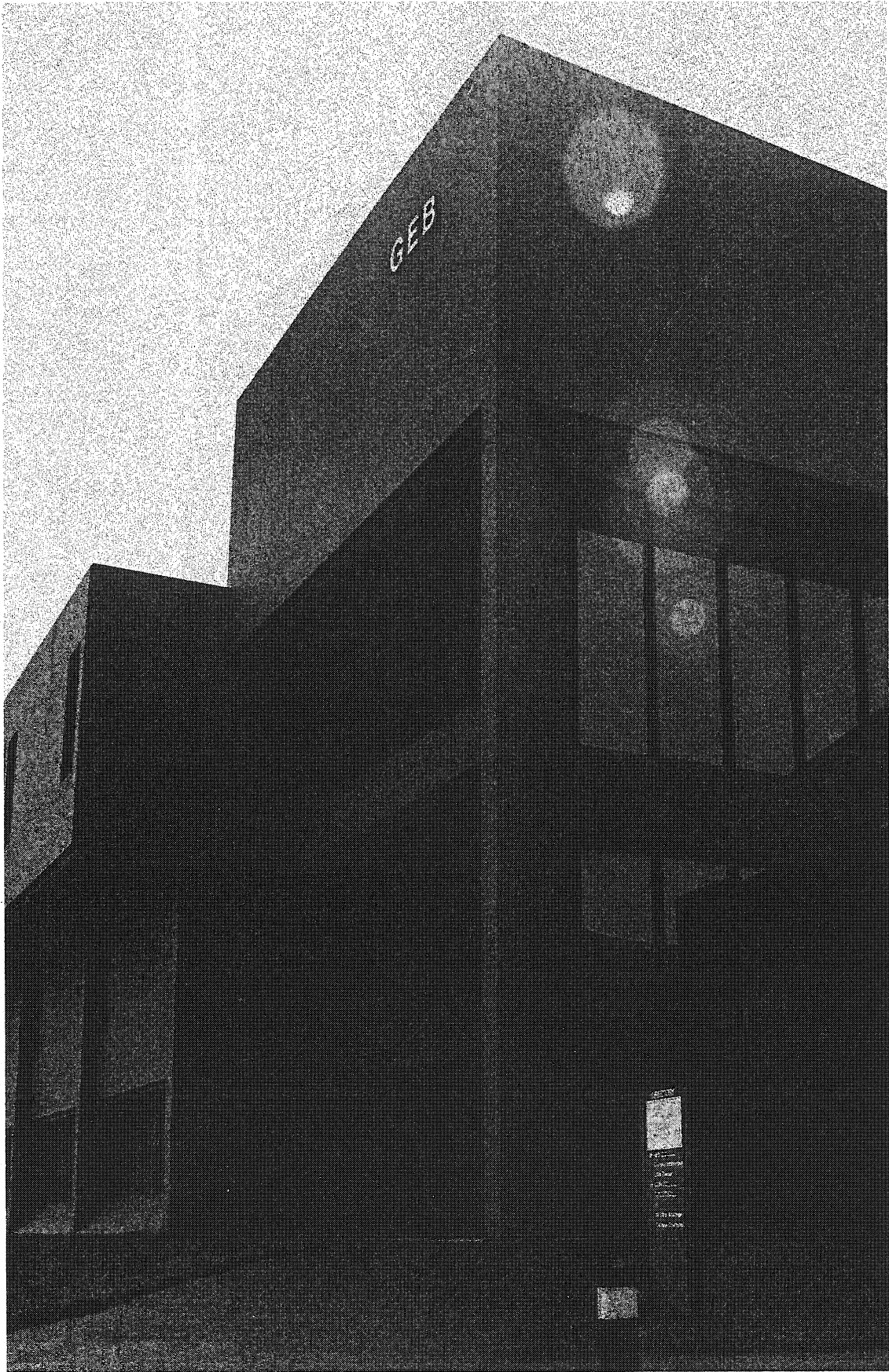
### GRADUATION WITH HONORS

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

### CERTIFICATE PROGRAM

You will be awarded a certificate of completion if you successfully complete a Board of Trustees-approved program that usually takes one year or less to complete and if you maintain a cumulative grade point average of 2.0 in prescribed course work. Usually, you will be awarded a certificate of completion when you complete any of these programs:

- Automotive Technology
- Emergency Medical Technology
- Emergency Mobil Intensive Care Technician
- Emergency Services Dispatcher Certification
- Energy Technology
- Family Economics
- Fire Service Administration
- Fire Prevention
- Fire Protection
- Hospitality Management
- Life and Home Management
- Mental Health Technology
- Paralegal
- Secretarial
- Welding



*Most of the College's present campus was completed in 1972 on 220 acres of prime prairie grassland.*





# ***PROGRAMS OF STUDY***

Transfer Programs  
Career Programs

## TRANSFER PROGRAMS

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

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

### UNIVERSITY TRANSFER PROGRAMS

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

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

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

#### Business

Accounting  
Business Administration  
Finance  
Management  
Computer Science  
Information Systems

#### Education

Early Childhood  
Elementary/Secondary  
Physical Education  
Special Education  
Recreation

#### Engineering

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

#### Home Economics

Interior Design  
Fashion Marketing

#### Liberal Arts

Art  
English  
Foreign Language  
Journalism  
Music  
Philosophy  
Speech  
Theater

#### Science and Math

Biology  
Chemistry  
Geology  
Mathematics  
Physics

#### Social Science

Economics  
History  
Political Science  
Psychology  
Social Work  
Sociology

#### Medicine and Health

Pre-Veterinary  
Pre-Med  
Pre-Pharmacy  
Pre-Dental  
Nursing  
Physical Therapy  
Respiratory Therapy

A "transfer program" is the program of study you follow if you plan to continue your education at a four-year college or university.



You are encouraged to meet with your counselor concerning the revision of degrees and degree requirements effective fall 1985.

### INDIVIDUALIZED TRANSFER PROGRAMS

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

Administration of Justice  
Aerospace Engineering  
Agricultural Engineering  
Atmospheric Sciences  
Art Therapy

### TRANSFER INFORMATION

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

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

### A SAMPLE FOUR-YEAR DEGREE

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

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

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



## A SAMPLE FOUR-YEAR DEGREE

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

Total 124-128 hours	General Requirements			Distribution Requirements				
First Two Years (First 60-64 hours 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
Second Two Years (Remaining 60-64 hrs.)	Courses taken in major field			Upper division courses not in major field				Electives

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

### COMMUNICATIONS (3-4 courses)

†ENGL 105 Fund of English	3
ENGL 106 Intro to Writing†	3
ENGL 121 Composition I	3
ENGL 122 Composition II	3

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

SPD 120 Interpersonal Communication	3
SPD 121 Public Speaking	3

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

ENGL 230 Intro to Fiction	3
ENGL 231 American Writers	3
ENGL 232 Children's Literature	3
ENGL 243 Literature of Sci Fiction	3
ENGL 250 World Masterpieces	3
ENGL 254 Masterpieces of the Cinema	3
ENGL 222 Advanced Composition	3

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

FL 120 Elementary German I	5
FL 130 Elementary Spanish I	5
FL 140 Elementary French I	5

### MATHEMATICS (1 course)

At least one math course usually is required. If you are unsure of your skills, take the Math Assessment Test in the Testing Center to determine proper course selection.

MATH 115 Intro to Algebra†	3
MATH 116 Intermediate Algebra†	3
MATH 160 Algebra*	5
MATH 171 College Algebra*	3
MATH 172 Trigonometry*	3
MATH 231 Calculus I*	3

†May not transfer to some four-year colleges

\*Check catalog for prerequisite

### HUMANITIES (2-3 courses)

You may use literature courses as humanities credits.

HUM 122 Introduction to Humanities	3
HUM 133 Comparative Cultures	3
THEA 230 Introduction to Theater	3
HUM 144 Introduction to Art History	3

HUM 147 Modern Art History	3
MUS 121 Intro to Music Listening	3
MUS 125 Intro to Jazz Listening	3
PHIL 121 Intro to Philosophy	3
PHIL 132 Logic	3
PHIL 143 Ethics	3
PHIL 165 Phil of Current Civilization	3
PHIL 176 Phil of Religion	3

### NATURAL SCIENCES (2-3 courses)

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

#### Biological Sciences

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

#### Physical Science

PSCI 120 Physical Sci (AVT Lab incl)	4
PSCI 122 Astronomy	4
PSCI 130 General Geology	5
PSCI 132 Historical Geology	5
CHEM 122 Principles of Chemistry	5
CHEM 124 General Chemistry I*	4
CHEM 125 General Chemistry I Lab*	1
PHYS 130 General Physics I*	5
PHYS 220 Engineering Physics I*	5

\*Check catalog for prerequisite

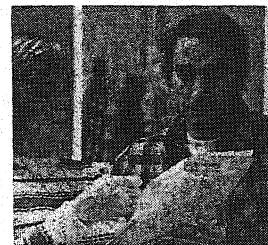
### SOCIAL SCIENCES (2-3 courses)

History courses will transfer as humanities credits to some schools.

ANTH 125 Cultural Anthropology	3
ANTH 126 Physical Anthropology	3
SOC 122 Sociology	3
SOC 125 Social Problems	3
SOC 131 Marriage and the Family	3
PSYC 130 Intro to Psychology	3
PSYC 215 Child Development*	3

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

*A new course numbering system was inaugurated in fall 1984. For the convenience of continuing students, previous course numbers are listed in parentheses at the end of course descriptions.*



PSYC 220	Social Psychology*	3
PSYC 230	Personality Theory*	3
POLS 122	Political Science	3
POLS 124	American Natl. Government	3
POLS 126	State & Local Government	3
POLS 135	International Relations	3
HIST 130	European History - 1750	3
HIST 140	U.S. History to 1877	3
HIST 141	U.S. History from 1877	3
HIST 160	Modern Russian History	3
ECON 130	Basic Economics	3
ECON 230	Economics I	3
ECON 231	Economics II	3

\*Check catalog for prerequisite

### GENERAL ELECTIVES

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

## CAREER PROGRAMS

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

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

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

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

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

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

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

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



*If you need help with a course, go directly to your instructor. If you have problems relating to your instructor, discuss them with your counselor.*

*The Corner Lounge, located in the College Commons, is where students gather to enjoy films, concerts, lectures and other special events.*

## ACCOUNTING

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

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

### Associate of Arts Degree

<i>First Semester</i>		<b>CR</b>
ENGL 121	Composition I	3
ECON 230	Economics I	3
or		
SOC 122	Sociology	3
PSCI 120	Physical Science	3
ACCT 121	Accounting I	3
	Business Electives	6
	<b>TOTAL HOURS</b>	<b>18</b>

### *Second Semester*

ENG 121	Composition II	3
or		
BUS 150	Business Communications	3
ECON 231	Economics II	3
PHIL 132	Logic	3
or		
PHIL 143	Ethics	3
BIOL 122	Principles of Biology	3
ACCT 122	Accounting II	3
	<b>TOTAL HOURS</b>	<b>15</b>

### *Third Semester*

SPD 120	Interpersonal Communication	3
MATH 171	College Algebra	3
ACCT 222	Managerial Accounting	3
BUS 261	Business Law I	3
DP 124	Business Data Processing	3
or		
DP 134	Programming Fundamentals	3-4
	Business Electives	6
	<b>TOTAL HOURS</b>	<b>13-19</b>

### *Fourth Semester*

Health or Physical Development Elective		1
HUM 122	Introduction to Humanities	3
	Business Electives	9
	<b>TOTAL HOURS</b>	<b>13</b>

## Associate of Technical Arts Degree

<i>First Semester</i>		<b>CR</b>
ENGL 121	Composition I	3
ECON 230	Economics I	3
or		
SOC 122	Sociology	3
ACCT 121	Accounting I	3
MATH 120	Business Math	3
	Business Electives	3
	<b>TOTAL HOURS</b>	<b>15</b>

### *Second Semester*

HUM 122	Introduction to Humanities	3
ACCT 122	Accounting II	3
BUS 150	Business Communication	3
BUS 261	Business Law I	3
	Business Electives	3
	<b>TOTAL HOURS</b>	<b>15</b>

### *Third Semester*

ACCT 231	Intermediate Accounting I	3
or		
ACCT 221	Cost Accounting	3
or		
ACCT 222	Managerial Accounting	3
DP 124	Business Data Processing	3-4
or		
DP 134	Programming Fundamentals	4
ACCT 271	Field Study Human Relations	2-3
	Business Electives	6
	<b>TOTAL HOURS</b>	<b>14-16</b>

### *Fourth Semester*

Health or Physical Development Elective		1
ACCT 272	Field Study Accounting Seminar	3
	Business Electives	12
	<b>TOTAL HOURS</b>	<b>16</b>

## ADMINISTRATION OF JUSTICE / LAW ENFORCEMENT

More than one million people are employed in the major administration of justice/law enforcement fields in the United States. Employment opportunities are expected to grow as fast or slightly faster than average for all occupations in the field through the 1980s.

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

### *First Semester*

		<b>CR</b>
ENGL 121	Composition I	3
SOC 122	Sociology	3
ADMJ 121	Intro. to Administration of Justice**	3
ADMJ 124	Study of Criminal Justice System	3
ADMJ 127	Criminology	3
	<b>TOTAL HOURS</b>	<b>15</b>



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



*Check with your counselor about the transferability of courses if you're planning to continue your education at a four-year institution.*



JCCC offers a number of programs for people with special needs such as the hearing impaired, the adult mentally retarded and adults over 60.

**Second Semester**

ENGL 122	Composition II	3
PSYC 130	Introduction to Psychology	3
ADMJ 130	Crime Prevention	3
ADMJ 136	Police and the Public	3
ADMJ 154	Fund. of Criminal Investigation**	3
<b>TOTAL HOURS</b>		<b>15</b>

**Third Semester**

POLS 126	State and Local Government	3
ADMJ 133	Juvenile Delinquency	3
ADMJ 140	Constitutional Case Law**	3
	Health or Phys. Dev. Elective	1
	Program Electives	5
<b>TOTAL HOURS</b>		<b>15</b>

**Fourth Semester**

SEC 110	Beginning Typing*	3
ADMJ 141	Criminal Law**	3
ADMJ 157	Patrol Procedures	3
	Program Electives	6
<b>TOTAL HOURS</b>		<b>15</b>

**Program Electives**  
(12 hours — any 4 courses)

If you are a transfer student, you may substitute relevant social science courses for program electives with approval of the program coordinator.

ADMJ 225	Defensive Tactics for Police**	3
ADMJ 150	Motor Vehicle Law	3
ADMJ 151	Traffic Safety/Accident Invest	3
ADMJ 221	Intro to Criminalistics	3
ADMJ 164	Supervisory Techniques	3
ADMJ 166	Police Organization & Management	3
ADMJ 281	Readings in Police Science	3
ADMJ 145	Fundamentals of Private Security	3
ADMJ 146	Retail Security	3

**Correctional Services**  
**Offered at Longview Community 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.

KADJ 185	Principles of Correction	3
KADJ 191	Corrections in the Community	3
KADJ 186	Correctional Psychology	3
KADJ 192	Correctional Administration	3
KADJ 194	Internship in Corrections I	3
KADJ 261	Internship in Corrections II	3
KADJ 188	Theory of Child Care Work in Residential Treatment	3
KADJ 193	Methods of Interacting with Emotionally-Sensitive Children	3

**Emergency Services Dispatcher Certification:**

ADMJ 124	Study of Crim. Justice System	3
ADMJ 136	Police and the Public	3
ADMJ 157	Patrol Procedures	3
SEC 110	Beginning Typing	3
SEC 122	Intermediate Typing	3
SEC 136	Records Management	3

ENGL 121	Composition I	3
ENGL 122	Composition II	3
PSYC 130	Introduction to Psychology	3
ADMJ 271	Field Study	3
<b>TOTAL HOURS</b>		<b>30</b>

\*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 course.



## AGRIBUSINESS

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

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

### Associate of Science Degree

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

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

**Summer Session (optional)**

AGRI 271	Supervised Occ. Experience	5
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See the section "Course Descriptions" for complete details on each course.

**Third Semester**

BUS 141	Principles of Management	3
ACCT 111	Small Business Accounting	3
AGRI 225	Pesticide Use and Safety	4
AGRI 235	Soil Science	4
	General Elective	3
	<b>TOTAL HOURS</b>	<b>17</b>

**Fourth Semester**

AGRI 122	Agricultural Economics	3
AGRI 240	Crop Science	4
BUS 230	Marketing	3
BUS 261	Business Law I	3
AGRI 125	Computers in Agribusiness	1
	Agribusiness Elective	3
	<b>TOTAL HOURS</b>	<b>17</b>

**Agribusiness Electives**

HORT 125	Horticulture I	5
HORT 126	Horticulture II	5
HORT 221	Herbaceous Plant Materials	3
HORT 220	Woody Plant Materials	3
AGRI 230	Fundamentals of Animal Nutrition	3
HORT 115	Home Horticulture	2
HORT 120	Fundamentals of Landscaping	3



## AUTOMOTIVE TECHNOLOGY

Anyone who owns a car knows that skilled automobile mechanics are in demand by privately-owned service stations as well as by automobile dealers. In fact, in 1980 there were about one million people employed as automobile mechanics or body repairers. While the job outlook in this area is better than average, you may wish to increase your chances of getting a job in this area by continuing at a four-year university or school in automotive engineering, industrial arts and vocational/technical education. Check with a JCCC counselor about special options.

You can begin, however, by learning the basics in JCCC's career program. You may select from two options. The two-year associate of technical arts degree plan concentrates on a theoretical background in diagnosis and tune-up, chassis, electrical and hydraulic systems, automatic transmissions, engines and emissions. You also will work on developing skills needed to advance to a supervisory position, including dealing directly with customers, estimating materials and labor costs and directing the work of others.

The one-year certificate program is specifically designed for those who wish to enter the field as technicians, service writers or in other related positions. Here trouble-shooting will be emphasized as you work in a well-equipped lab on welding, diagnosis and tune-up, chassis, electrical and hydraulic systems, automatic transmissions, engines (including diesels), air conditioning and emission controls.

## Associate of Technical Arts

**First Semester – Fall**

		<b>CR</b>
AUTO 125	Intro. to Auto Shop Practices	3
AUTO 150	Auto Transmissions & Drivelines	4
MATH 133	Technical Math I	3
ENGL 121	Composition I	3
	Elective	3
	<b>TOTAL HOURS</b>	<b>16</b>

**Second Semester – Spring**

AUTO 160	Auto Engines I	3
AUTO 163	Auto Suspension, Steering and Brakes	3
MFAB 121	Introduction to Welding	3
BUS 141	Principles of Management	3
ENGL 123	Technical Writing	3
	Health or Physical Development Elective	1
	<b>TOTAL HOURS</b>	<b>16</b>

**Third Semester – Fall**

AUTO 222	Auto Starting, Charging & Ignition	3
AUTO 255	Auto Carburetion, Diesel & Fuel Injection	3
PHYS 125	Technical Physics I	3
	Electives	3
	Technology Elective	3
	<b>TOTAL HOURS</b>	<b>15</b>

**Fourth Semester – Spring**

AUTO 230	Auto A/C, Lighting and Power Accessories	4
AUTO 235	Auto Diagnosis and Evaluation	4
AUTO 240	Auto Dealership Operation	3
DRAF 261	Graphic Communications I	3
	Elective	3
	<b>TOTAL HOURS</b>	<b>17</b>

**Technology Electives:**

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

**Certificate Program:**

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

**First Semester – Fall**

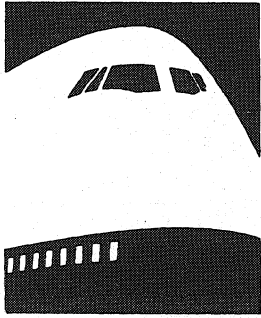
		<b>CR</b>
AUTO 125	Introduction to Auto Shop Practices	3
AUTO 150	Auto Transmissions & Drivelines	4
AUTO 222	Auto Starting, Charging & Ignition	3
AUTO 255	Auto Carburetion, Diesel & Fuel Injection	3

**Second Semester – Spring**

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

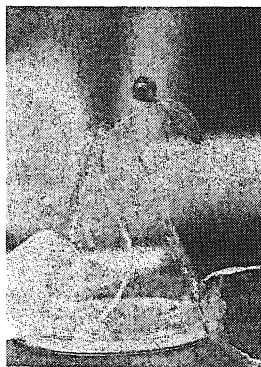


A "course load" is the number of hours in which you are enrolled in a semester.



You may view telecourse tapes in the Library on a first come, first served basis. Check with the Circulation Desk.

During the buy-back period in the College Bookstore, a maximum of half your money will be refunded if the quality of the book meets bookstore standards and the book will be used the following semester.



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

MFAB	121	Introduction to Welding	3
MATH	133	Technical Math I	3
PHYS	125	Technical Physics I	3
AUTO	240	Auto Dealership	3
TOTAL HOURS			39

## AVIATION MAINTENANCE

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

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

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

### Associate of Technical Arts Degree

#### Airframe Option

<i>First Semester – Fall</i>			<b>CR</b>
KAV	100	Intro. to Aviation Maintenance	19
ENGL	121	Composition I	3
MATH	105	Technical Mathematics I	4
TOTAL HOURS			26

<i>Second Semester – Spring</i>			
KAV	102	Wood & Fabric	3
KAV	104	Assembly & Rigging	6
KAV	200	Sheet Metal & Welding	7
KAV	204	Aircraft Communication, Navigation & Instrumentation Systems	6
TOTAL HOURS			22

<i>Summer Semester</i>			
KAV	106	Hydraulic & Pneumatic Systems	8
KAV	202	Aircraft Fuel Systems	2
TOTAL HOURS			10

<i>Third Semester – Fall</i>			
KAV	108	Aircraft Electricity & Related Systems**	6
KAV	206	Airframe Theory Survey**	6

KAV	210	Seminar in Airframe**	3
SPD	120	Interpersonal Communication	3
		Missouri Constitution*	3
TOTAL HOURS			22

\*Course to be taken at Maple Woods

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

### Associate of Technical Arts Degree

#### Powerplant Option

<i>First Semester – Fall</i>			<b>CR</b>
KAV	100	Intro. to Aviation Maintenance	19
ENGL	121	Composition I	3
MATH	105	Technical Mathematics I	4
TOTAL HOURS			26

<i>Second Semester – Spring</i>			
KAV	101	Carburetion & Lubrication	8
KAV	103	Aircraft Reciprocating Powerplant	6
KAV	105	Propellers	5
KAV	107	Jet Propulsion Powerplant	5
TOTAL HOURS			24

<i>Summer Semester</i>			
KAV	109	Aircraft Ignition & Starting Systems	4
KAV	203	Electricity, Generator-Alternator	6
TOTAL HOURS			10

<i>Third Semester – Fall</i>			
KAV	201	Powerplant Testing**	5
KAV	205	Engine Instruments**	6
KAV	209	Seminar in Powerplant**	4
SPD	120	Interpersonal Communication	3
		Missouri Constitution*	3
TOTAL HOURS			21

\*Course to be taken at Maple Woods

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

## BIOMEDICAL EQUIPMENT TECHNOLOGY

A biomedical equipment technician may work for a hospital, medical equipment manufacturer, medical equipment service firm or as a field technician selling, maintaining and installing specialized electronic systems used in the health field. His or her responsi-



bilities may include electrical safety checks; preventive maintenance procedures; and in-service training of medical personnel.

JCCC's Biomedical Equipment Technology Program focuses on courses devoted to the fundamentals of electronics, natural sciences and related mathematics. It also features an internship program in which you will spend six hours each week in an assigned hospital or related position. You will work on the actual equipment you will use when employed in the field.

### Associate of Science Degree

<i>First Semester – Fall</i>		<b>CR</b>
ELEC 120	Introduction to Electronics .....	3
ELEC 122	Circuit Analysis I .....	3
MATH 143	Math for Electronics I .....	5
ENGL 121	Composition I .....	3
	Humanities/Fine Arts Elective .....	3
	<b>TOTAL HOURS .....</b>	<b>17</b>

<i>Second Semester – Spring</i>		
ELEC 125	Digital Electronics I .....	4
ELEC 130	Electronic Principles I .....	3
ELEC 140	Circuit Analysis II .....	3
MATH 144	Math for Electronics II .....	4
	**Programming Elective .....	3
	<b>TOTAL HOURS .....</b>	<b>17</b>

<i>Summer Semester</i>		
BIOL 144	Human Anatomy & Physiology* .....	5

\*Can be taken any semester before third semester.

<i>Third Semester – Fall</i>		
ELEC 230	Electronic Principles II .....	3
ELEC 225	Digital Electronics II .....	4
ENGL 123	Technical Writing .....	3
BMT 210	Biomedical Equipment Tech. I .....	4
	Health or Phys. Dev. Elective .....	1
	<b>TOTAL HOURS .....</b>	<b>15</b>

<i>Fourth Semester – Spring</i>		
ELEC 235	Electronic Principles III .....	3
ELEC 245	Microprocessors .....	3
BMT 211	Biomedical Equipment Tech. II .....	3
BMT 271	Biomedical Internship .....	3
	Social Science or Economics Elective .....	3
	<b>TOTAL HOURS .....</b>	<b>15</b>

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

DP 131	BASIC for Engineering Technology ..	3
ENGR 171	Programming for Engineering and Science .....	3

these were managers in a wide variety of businesses, the skills required to fill those positions are basically the same.

JCCC's career program focuses on the development of just those skills ... the ability to make decisions ... a familiarity with functions of management including planning, organizing, directing and controlling ... an awareness of the roles of employees and managers. Courses cover business-related topics including data processing, accounting, communications, personnel management, supervision and business law. This two-year program may provide the initial preparation you will need to transfer. Check with a JCCC counselor about the transferability of courses.

### Associate of Technical Arts Degree

<i>First Semester</i>		<b>CR</b>
ENGL 121	Composition I .....	3
ACCT 121	Accounting I .....	3
BUS 121	Intro to Business .....	3
DP 124	Business Data Processing .....	3
	Elective .....	3
	Health or Phys. Dev. Elective .....	1
	<b>TOTAL HOURS .....</b>	<b>16</b>

<i>Second Semester</i>		
ACCT 122	Accounting II .....	3
BUS 141	Principles of Management .....	3
PSYC 130	Intro to Psychology .....	3
ECON 230	Economics I .....	3
BUS 261	Business Law I .....	3
MATH 111	Fundamentals of Math .....	3
	<b>TOTAL HOURS .....</b>	<b>18</b>

<i>Third Semester</i>		
ACCT 222	Managerial Accounting .....	3
PHIL 143	Ethics .....	3
ECON 231	Economics II .....	3
BUS 230	Marketing .....	3
BUS 125	Savings and Investments .....	3
	<b>TOTAL HOURS .....</b>	<b>15</b>

<i>Fourth Semester</i>		
BUS 271	Management Seminar I .....	3
BUS 150	Business Communications .....	3
BUS 263	Business Law II .....	3
BUS 243	Personnel Management .....	3
	Elective .....	3
	<b>TOTAL HOURS .....</b>	<b>15</b>

See "Business Administration" section for business courses.



Among the features of the new Office and Classroom Building are an expanded data processing facility; sound-proof music rooms; and the finest instructional kitchen in the Midwest for hospital-ity management and chefs apprenticeship programs.

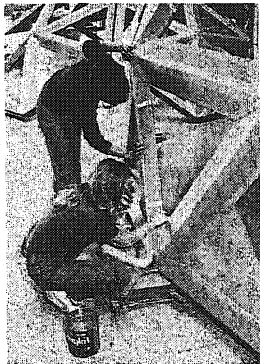
## BUSINESS MANAGEMENT

In 1980, more than one million people were employed in the United States as managers. While

## CHEF APPRENTICESHIP

Where do great chefs get their start? Some of them, at least, have begun in JCCC's Chef Apprenticeship Program. In 1980 there were about 1,100,000 persons employed in the United States as cooks and chefs. Graduates of post-secondary school training

JCCC is officially accredited by the North Central Association of Colleges and Schools.



programs, including associate degree and apprenticeship programs, appear to have the advantage when looking for jobs.

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

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

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

### Associate of Technical Arts Degree

<i>First Semester</i>		<b>CR</b>
HMGT 121	Hosp. Management Fundamentals . . .	3
HMGT 123	Basic Food Preparation . . . . .	3
ENGL 105	Fund. of English . . . . .	3
HMGT 281	Practicum I . . . . .	2
<b>TOTAL HOURS . . . . .</b>		<b>11</b>

<i>Second Semester</i>		
HMGT 274	Seminar in Accounting . . . . .	2-3
HMGT 230	Intermediate Food Preparation . . . . .	3
PSYC 121	Applied Psychology . . . . .	3
HOSP 282	Culinary Practicum II . . . . .	2
<b>TOTAL HOURS . . . . .</b>		<b>10-11</b>

<i>First Summer</i>		
HMGT 275	Seminar: Hosp. Management Internship . . . . .	2-3
	Humanities Elective . . . . .	3
<b>TOTAL HOURS . . . . .</b>		<b>5-6</b>

<i>Third Semester</i>		
HMGT 277	Seminar: Menu Planning and Sales Promotion . . . . .	2-3
HMGT 223	Fundamentals of Baking . . . . .	3
MATH 120	Business Math . . . . .	3
HMGT 285	Practicum III . . . . .	2
<b>TOTAL HOURS . . . . .</b>		<b>10-11</b>

<i>Fourth Semester</i>		
HMGT 231	Advanced Food Preparation . . . . .	4
HMGT 279	Beverage Control . . . . .	2-3
HMEC 151	Nutrition and Meal Planning . . . . .	3
HMGT 286	Culinary Practicum IV . . . . .	2
<b>TOTAL HOURS . . . . .</b>		<b>11-12</b>

<i>Fifth Semester</i>		
HMGT 226	Food Specialties - Garde Manger . . . . .	3
HMGT 271	Seminar: Hosp. Management/Purchasing . . . . .	2-3
	Health & Phys. Dev. Elective . . . . .	1
HMGT 287	Culinary Arts Practicum V . . . . .	2
<b>TOTAL HOURS . . . . .</b>		<b>8-9</b>

### Sixth Semester

HMGT 128	Supervisory Management . . . . .	3
HMGT 228	Advanced Hospitality Management . . . . .	3
SPD 120	Interpersonal Communication . . . . .	3
HMGT 288	Culinary Practicum VI . . . . .	2
<b>TOTAL HOURS . . . . .</b>		<b>11</b>

## COMMERCIAL ART

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

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

### Associate of Arts Degree

<i>First Semester - Fall</i>		<b>CR</b>
ART 124	Design 2D . . . . .	3
ART 129	Design Color . . . . .	3
CA 130	Basic Representation I . . . . .	3
PHOT 121	Photography I . . . . .	3
CA 133	Lettering . . . . .	3
<b>TOTAL HOURS . . . . .</b>		<b>15</b>

<i>Second Semester - Spring</i>		
CA 131	Basic Representation II . . . . .	3
PHOT 123	Photography III . . . . .	3
CA 233	Visual Technology I . . . . .	4
ART 223	Silkscreen . . . . .	3
CA 221	Layout . . . . .	3
<b>TOTAL HOURS . . . . .</b>		<b>16</b>

<i>Third Semester - Fall</i>		
ART 127	Design 3D . . . . .	4
CA 234	Visual Technology II . . . . .	4
CA 224	Visual Communications I . . . . .	4
	Art Elective . . . . .	3
<b>TOTAL HOURS . . . . .</b>		<b>15</b>

<i>Fourth Semester - Spring</i>		
CA 225	Visual Communications II . . . . .	4
CA 250	Preparation of Portfolio . . . . .	2
CA 271	Comm. Art Field Study . . . . .	3
	Health & Phys. Dev. Elective . . . . .	1
	Electives . . . . .	5
<b>TOTAL HOURS . . . . .</b>		<b>15</b>

Your official transcript will be forwarded to another college only after you submit a written refund request to the Admissions Office.



**Part-time Students:**

If you wish to enroll on a part-time basis (less than 12 hours), enroll in the following courses in the sequence listed or consult with the program coordinator.

1. Design 2D (ART 124) and/or an Art Elective
2. Basic Representation I (CA 130) and/or Lettering (CA 133)
3. Design Color (ART 129) and/or Photography I (PHOT 121)
4. Basic Representation II (CA 131) and/or Layout (CA 221)
5. Visual Technology I (CA 233) and/or Silkscreen (ART 223)
6. Design 3D (ART 127) and/or Visual Technology II (CA 234)
7. Visual Communications I (CA 224) and/or Photography III (PHOT 123)
8. Visual Communications II (CA 225) and/or Electives
9. Preparation of Portfolio (CA 250) and Commercial Art Field Study (CA 271)

**COMPUTER SYSTEMS TECHNOLOGY**

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

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

**Associate of Science Degree**

<i>First Semester – Fall</i>		<b>CR</b>
ELEC 120	Introduction to Electronics .....	3
ELEC 122	Circuit Analysis I .....	3
ELEC 125	Digital Electronics I .....	4
	Health and Phys. Dev. Elective .....	1
MATH 143	Math for Electronics I .....	5
	<b>TOTAL HOURS .....</b>	<b>16</b>
<i>Second Semester – Spring</i>		
ELEC 140	Circuit Analysis II .....	3
ELEC 225	Digital Electronics II .....	4
ELEC 130	Electronic Principles I .....	3
DP 132	Basic for Engineering Technology ...	3
MATH 144	Math for Electronics II .....	4
	<b>TOTAL HOURS .....</b>	<b>17</b>

*Third Semester – Fall*

ELEC 230	Electronic Principles II .....	3
ELEC 245	Microprocessors .....	3
DP 145	Assembly Language for Microcomputer .....	3
PHYS 125	Technical Physics I .....	4
ENGL 121	Composition I .....	3
	<b>TOTAL HOURS .....</b>	<b>16</b>

*Fourth Semester – Spring*

CST *	Computer Peripherals .....	3
CST *	Microcomputer Operating Systems ..	3
DP 174	Teleprocessing .....	3
ENGL 123	Technical Writing .....	3
	Social Science or Electronics .....	3
	Humanities or Fine Arts .....	3
	<b>TOTAL HOURS .....</b>	<b>18</b>

*Suggested Additional Courses*

DRAF 126	Electronics Drafting .....	3
PHYS 126	Technical Physics II .....	5
ELEC 235	Electronic Principles III .....	3
*	Teleprocessing II	
*	Advanced Mathematics	
*	Programming Courses	

\*Courses to be developed

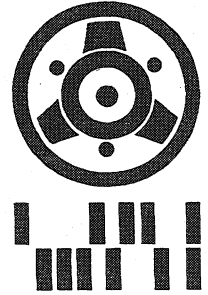
**DATA PROCESSING**

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

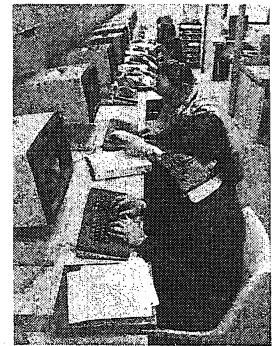
JCCC offers a two-year program which provides training for entry-level computer programmers and related positions. JCCC's data processing equipment includes a Hewlett Packard 3000 system which provides access to an IBM-type main frame as well as in-house processing. IBM and DEC microcomputers also are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

**Associate of Technical Arts Degree**

<i>First Semester</i>		<b>CR</b>
DP 134	Programming Fundamentals .....	4
ACCT 121	Accounting I .....	3
ENGL 121	Composition I .....	3
MATH 116	Intermediate Algebra .....	3
	Elective .....	3
	<b>TOTAL HOURS .....</b>	<b>16</b>



*The new Computer Systems Technology program is the only one of its kind in the area.*



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

Notify the Admissions/Records Office immediately if your name or address changes so you will continue to receive college mailings.

**Second Semester**

DP	148	COBOL I	4
DP	140	Editor	1
		Data Processing Elective	3-4
PHIL	132	Logic	3
ECON	230	Economics I	3
		Health or Phys. Dev. Elective	1
		<b>TOTAL HOURS</b>	<b>15-16</b>

**Third Semester**

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

**Fourth Semester**

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

The three Data Processing Elective courses are to be selected from:

DP	137	Advanced Basic	4
DP	145	Assembler Language for Microcomputers	4
DP	156	RPG II Beginning	4
DP	158	Fortran	4
DP	174	Teleprocessing	3
DP	210	Pascal	4
DP	215	OS/VS Job Control Language	3
DP	250	Assembler Language II	4
DP	253	CICS Command Level COBOL	4
DP	256	RPG II Advanced	4
DP	260	Data Base Management	4

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



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

## DENTAL HYGIENE

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

JCCC's Dental Hygiene Program consists of two full academic years and one summer session. You will gain practical experience working in JCCC's Dental Hygiene Clinic located on campus. This clinic is used

to develop students' efficiency in dental techniques, under the supervision of a licensed dentist and registered dental hygienists. The program is fully accredited by the American Dental Association, Commission on Dental Accreditation.

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

### Associate of Science Degree

**Summer Semester**

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

**First Semester**

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

**Second Semester**

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

**Third Semester**

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

**Fourth Semester**

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

**Fifth Semester**

DHYG	250	Clinical Dental Hygiene IV	7
SPD	120	Interpersonal Communication	3
		<b>TOTAL HOURS</b>	<b>10</b>

**TOTAL HOURS** ..... **70**

\*Required before admission to program

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



## DRAFTING TECHNOLOGY

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

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

### Associate of Science Degree

<i>First Semester – Fall</i>		<b>CR</b>
DRAF 132	Technical Drafting I . . . . .	5
DRAF 135	Reprographics I . . . . .	2
MATH 133	Technical Math I . . . . .	3
DP 132	Basic for Engineering Technology . . .	3
ENGL 121	Composition I . . . . .	3
<b>TOTAL HOURS . . . . .</b>		<b>16</b>

<i>Second Semester – Spring</i>		
DRAF 133	Technical Drafting II . . . . .	5
DRAF 230	Computer-Aided Drafting - 2D . . . . .	3
MATH 134	Technical Math II . . . . .	5
ENGL 123	Technical Writing . . . . .	3
<b>TOTAL HOURS . . . . .</b>		<b>16</b>

<i>Third Semester – Fall</i>		
DRAF 121	Technical Illustration . . . . .	3
PHYS 125	Technical Physics I . . . . .	3
MFTG 121	Manufacturing Processes and Testing . .	3
	Drafting Elective . . . . .	6
	Health or Phys. Dev. Elective . . . . .	1
<b>TOTAL HOURS . . . . .</b>		<b>16</b>

<i>Fourth Semester – Spring</i>		
Drafting Electives or Drafting Co-op . . . . .		4
PHYS 126	Technical Physics II . . . . .	3
	Humanities or Fine Arts Elective . . . . .	3
	Social Science or Economics Elective . .	3
	Technical Elective . . . . .	3
<b>TOTAL HOURS . . . . .</b>		<b>16</b>

#### Drafting Electives:

DRAF 231	Computer-Aided Drafting - 3D . . . . .	3
DRAF 180	Architectural/Structural Drafting (F) . .	4
DRAF 160	Process Piping (F) . . . . .	3
DRAF 150	Electrical Drafting (S) . . . . .	3
DRAF 127	Building Construction Estimating (S) . .	3
DRAF 225	Cartography & Land Surveying (S) . . .	3
DRAF 129	Interp. Architectural Drawings (F) . . .	2
DRAF 131	Engineering Graphics I . . . . .	3
DRAF 136	Reprographics II (S) . . . . .	2
DRAF 145	Tool Design . . . . .	3
DRAF 175	Electronics Drafting . . . . .	3
DRAF 261	Graphic Communications I . . . . .	2-7
DRAF 271	Drafting Cooperative Ed I . . . . .	2-9

(F) Offered fall semester only

(S) Offered spring semester only

## ELECTRONICS ENGINEERING TECHNOLOGY

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

### Associate of Science Degree

<i>First Semester – Fall</i>		<b>CR</b>
ELEC 120	Introduction to Electronics . . . . .	3
ELEC 122	Circuit Analysis I . . . . .	3
MATH 143	Math for Electronics I . . . . .	5
ENGL 121	Composition I . . . . .	3
	Health or Phys. Dev. Elective . . . . .	1
<b>TOTAL HOURS . . . . .</b>		<b>15</b>

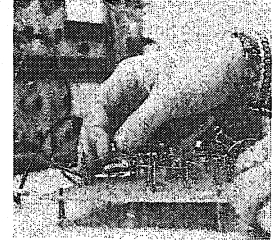
<i>Second Semester – Spring</i>		
ELEC 125	Digital Electronics I . . . . .	4
ELEC 130	Electronic Principles I . . . . .	3
ELEC 140	Circuit Analysis II . . . . .	3
MATH 144	Math for Electronics II . . . . .	4
	Health or Phys. Dev. Elective . . . . .	3
<b>TOTAL HOURS . . . . .</b>		<b>17</b>

<i>Third Semester – Fall</i>		
ELEC 225	Digital Electronics II . . . . .	4
ELEC 230	Electronic Principles II . . . . .	3
PHYS 125	Technical Physics I . . . . .	3
ENGL 123	Technical Writing . . . . .	3
	Programming Elective* . . . . .	3
<b>TOTAL HOURS . . . . .</b>		<b>16</b>

<i>Fourth Semester – Spring</i>		
ELEC 235	Electronic Principles III . . . . .	3
ELEC 240	Electronic Comm. Systems . . . . .	3
ELEC 245	Microprocessors . . . . .	3
PHYS 126	Technical Physics II . . . . .	3
	Social Science or Economics Elective . .	3
<b>TOTAL HOURS . . . . .</b>		<b>15</b>

\*You must take one of the following:

ENGR 171	Programming for Engineering and Science . . . . .	4
or		
DP 132	BASIC for Engineering Technology . . .	3



Reserve materials are checked out at the Library's Circulation Desk. You will need a library card to use them.

You may drop a class by completing a drop form in the Admissions Office.

## EMERGENCY MEDICAL TECHNOLOGY

JCCC's Emergency Medical Technology Program consists of two parts. The Emergency Medical Technician (EMT) Program and the Emergency Mobile Intensive Care Technician (Paramedic) Program.

### Emergency Medical Technician Program

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

Any Semester	CR
EMT 130 Emergency Medical Technician	6

### Emergency Mobile Intensive Care Technician Program

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

First Semester - Spring	CR
EMIC 220 EMICT I	10
EMIC 225 EMICT II	10
TOTAL HOURS	20

Second Semester - Summer	
EMIC 230 EMICT III (Clinicals)	12
TOTAL HOURS	12

Third Semester - Fall	
EMIC 271 EMICT IV (Field Internship)	10
TOTAL HOURS	10



## ENERGY TECHNOLOGY PROGRAM

If you're planning to enter the field of energy, you will find a variety of career options each requiring technical training. These areas include the installation and maintenance of various heating, air conditioning and refrigeration systems.

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

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

### Associate of Technical Arts Degree

First Semester - Fall	CR
ENER 121 Basic Principles of HVAC	4
ENER 123 Electromechanical Systems	3
ENER 125 Energy Alternatives	3
MATH 133 Technical Math I	3
ENGL 121 Composition I	3
TOTAL HOURS	16

Second Semester - Spring	
ENER 124 Residential HVAC Estimating	2
ENER 126 Residential HVAC Systems	3
ENER 128 Instrumentation & Control Devices	3
PHYS 125 Technical Physics I	3
DRAF 261 Graphic Communications I	3
Physical Dev. or Health Elective	3
TOTAL HOURS	16

Third Semester - Fall	
ENER 221 Commercial Systems-Air Conditioning	4
ENER 222 Advanced Control Systems	3
MFAB 232 Sheet Metal Pattern & Development	3
DP 132 BASIC for Engineering Technology	3
Technical Elective	3
TOTAL HOURS	16

Fourth Semester - Spring	
ENER 223 Commercial Systems - Heating	4
ENER 224 Diagnosis and Service Procedures	3
ENER 226 Energy Management	3
MFAB 121 Introduction to Welding	3
Electives	3
TOTAL HOURS	16

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

ENER 129 Domestic Solar Systems	3
ENER 130 Passive Solar Fundamentals	3
ENER 271 HVAC Cooperative Ed I	2
MFAB 140 Intro to Metal Fabrication	3
ELEC 120 Introduction to Electronics	3

### Energy Technology Certificate Program

The certificate program is designed to prepare graduates for the basic job skills needed to service residential and domestic heating and air conditioning equipment. If you elect the certificate option you will

For a list of courses requiring fees in addition to tuition, see the Credit Bulletin. Bulletins are available at the Admissions Office.

If you have questions about residency requirements, contact the Director of Admissions/Records.

learn the theory of operation as well as installation, servicing and repairing of gas furnaces, electric furnaces, heat pumps, rooftop air conditioners and steam boilers. This knowledge is reinforced by working on actual equipment in the laboratory. Completion of this program will allow you to seek employment as a maintenance and service technician in the heating-air conditioning trade.

**First Semester – Fall**

ENER 121	Basic Principles of HVAC	4
ENER 123	Electromechanical Systems	3
ENER 125	Energy Alternatives	3

**Second Semester – Spring**

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

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

ENER 221	Commercial Systems-Air Conditioning	4
ENER 223	Commercial Systems-Heating	4
ENER 224	Diagnosis and Service Procedures	3
MATH 133	Technical Math I	3
<b>TOTAL HOURS</b>		<b>36</b>

**Second Semester**

ENGL 122	Composition II	3
PSYC 130	Introduction to Psychology	3
EQUUS 140	Stable Management II	4
EQUUS 132	Equine Health, Disease and Disorders	4
EQUUS 154	Equitation II	4
<b>TOTAL HOURS</b>		<b>18</b>

**Third Semester**

MATH 120	Business Math	3
HUM	Humanities Elective	3
EQUUS 220	Stable Management III	4
EQUUS	Equine Elective*	5
	Health or Phys. Dev. Elective	1
<b>TOTAL HOURS</b>		<b>16</b>

**Fourth Semester**

BUS 140	Principles of Supervision	3
EQUUS 257	Stable Management IV	4
EQUUS	Equine Elective*	7
EQUUS 281	Advanced Equitation Project	2
<b>TOTAL HOURS</b>		<b>16</b>

**\*Courses will include:**

- Advanced Horse Training
- Teaching Techniques
- Advanced Equitation
- Breeding and Management
- Equine Merchandising

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

## EQUINE STUDIES

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

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

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

**Associate of Technical Arts Degree**

<b>First Semester</b>		<b>CR</b>
ENGL 121	Composition I	3
EQUUS 120	Stable Management	4
EQUUS 124	Equine Anatomy and Physiology	4
EQUUS 128	Equitation I	4
<b>TOTAL HOURS</b>		<b>15</b>

## FASHION MERCHANDISING

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

JCCC's two-year program focuses on merchandising, marketing and management in five areas of operation: textile, apparel designs, manufacturing, media and promotion, and retailing. Field experience is an essential part of the program. You will be guided through behind-the-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 or Europe.

**Associate of Technical Arts Degree**

<b>First Semester</b>		<b>CR</b>
FASH 271	Seminar: Human Relations	2-3
FASH 121	Fashion Fundamentals I	3
MKT 134	Creative Retail Selling	3
FASH 125	Fashion Display	3
ENGL 121	Composition I	3
<b>TOTAL HOURS</b>		<b>14-15</b>



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

**Second Semester**

FASH 274	Seminar: Supervisory Development	2-3
FASH 132	Fashion Promotion	3
MKT 121	Retailing	3
MATH 120	Business Math	3
FASH 150	Textiles	3
	Health or Phys. Dev. Elective	1
	<b>TOTAL HOURS</b>	<b>15-16</b>

**Third Semester**

FASH 276	Seminar: Career Options	2-3
FASH 231	Fashion Fundamentals II	3
BUS 230	Marketing	3
FASH 220	Fashion in Society	3
ECON 130	Basic Economics	3
CLC 150	Job Search Skills	1
	<b>TOTAL HOURS</b>	<b>15-16</b>

**Fourth Semester**

FASH 279	Seminar: Marketing Research	2-3
FASH 242	Merchandise Evaluation	3
FASH 130	Fashion Illustration I	3
	or	
HUM 122	Introduction to Humanities	3
	Electives	9
	<b>TOTAL HOURS</b>	<b>17-18</b>

**Suggested Electives:**

FASH 224	History of Dress	3
FASH 230	Fashion Illustration II	3
ITMD 121	Interior Design I	3
ITMD 122	Interior Design II	3
BUS 123	Personal Finance	3
ACCT 121	Accounting I	3
ART 151	Fiber Design I	3
BUS 243	Personnel Management	3
BUS 122	Principles of Management	3
SOC 128	Sociology	3
PSYC 130	Intro to Psychology	3

\*You may substitute another course for FIRE 150, with appropriate documentation of experience.

**Second Semester – Spring**

CHEM 122	Principles of Chemistry	5
BUS 261	Business Law I	3
PSYC 130	Introduction to Psychology	3
FIRE 162	Fire Tactics & Strategy	3
PD 240	Concepts of Physical Development	3
	<b>TOTAL HOURS</b>	<b>17</b>

**Third Semester – Fall**

MATH 181	Statistics	3
DP 124	Business Data Processing	3
BUS 141	Principles of Management	3
FIRE 220	Municipal Fire Administration	3
	Elective	3
	<b>TOTAL HOURS</b>	<b>15</b>

**Fourth Semester – Spring**

SPD 121	Public Speaking	3
BUS 140	Principles of Supervision	3
BUS 120	Management Attitudes & Motivation	3
FIRE 222	Fire Science Law	3
FIRE 224	Emergency Management Operations	3
	<b>TOTAL HOURS</b>	<b>15</b>

**Electives**

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

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



**FIRE PROTECTION ADMINISTRATION**

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

**Associate of Science Degree**

<b>First Semester – Fall</b>		<b>CR</b>
ENGL 121	Composition I	3
MATH 160	Algebra	5
FIRE 150	Introduction to Fire Science	3
POLS 126	State and Local Government	3
	Humanities or Fine Arts Elective	3
	<b>TOTAL HOURS</b>	<b>17</b>

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

**FIRE PROTECTION / PUBLIC SAFETY**

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

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



**Associate of Science Degree**

**Prevention**

FIRE 121	Fundamentals of Fire Prevention	3
FIRE 125	Building Construction for Fire Protection	3
FIRE 127	Fire Photography	3
FIRE 130	Fire Investigation	3
FIRE 132	Arson Investigation	3
FIRE 135	Life Safety Code	3
FIRE 137	Extinguishing, Detection and Alarm Systems	3
	Electives	9
	<b>TOTAL HOURS</b>	<b>30</b>

**Administration**

BUS 141	Principles of Management	3
BUS 140	Principles of Supervision	3
BUS 243	Personnel Management	3
FIRE 220	Municipal Fire Administration	3
FIRE 222	Fire Science Law	3
FIRE 224	Emergency Management Operations	3
	<b>TOTAL HOURS</b>	<b>30</b>

**Protection**

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

**Technical Electives**

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

**Nontechnical Electives**

	Communications Elective	3
SPD 120	Interpersonal Communication	3
PSYC 130	Introduction to Psychology	3
BUS 120	Management Attitudes & Motivation	3
BUS 140	Principles of Supervision	3
MATH 261	Computer-Assisted Instruction: BASIC	3

**HOME ECONOMICS  
Life and Home Management  
Family Economics**

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

**LIFE AND HOME MANAGEMENT PROGRAM**

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

**Associate of Arts Degree\***

<b>First Semester</b>		<b>CR</b>
HMEC 142	Home Management	3
ITMD 121	Interior Design I	3
HMEC 131	Family Communications	3
	Electives	6
	<b>TOTAL HOURS</b>	<b>15</b>

**Second Semester**

BUS 123	Personal Finance I	3
FASH 220	Fashion in Society	3
ITMD 232	Housing and Equipment	3
	Electives	6
	<b>TOTAL HOURS</b>	<b>15</b>

**Third Semester**

FASH 150	Textiles	3
HMEC 151	Nutrition/Meal Planning	3
	Electives	9
	<b>TOTAL HOURS</b>	<b>15</b>

**Fourth Semester**

FASH 242	Merchandise Evaluation	3
ITMD 132	Interior Products	3
	Electives	9
	<b>TOTAL HOURS</b>	<b>15</b>

**Certificate Program**

30 hours in Life and Home Management

<b>First Semester</b>		<b>CR</b>
HMEC 142	Home Management	3
HMEC 131	Family Communications	3
BUS 123	Personal Finance	3
FASH 220	Fashion in Society	3
ITMD 121	Interior Design I	3
	<b>TOTAL HOURS</b>	<b>15</b>

**Second Semester**

FASH 150	Textiles	3
ITMD 232	Housing and Equipment	3
HMEC 151	Nutrition & Meal Planning	3
FASH 242	Merchandise Evaluation	3
ITMD 132	Interior Products	3
	<b>TOTAL HOURS</b>	<b>15</b>

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



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

## FAMILY ECONOMICS PROGRAM

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

If you're interested in transferring, you may find valuable the information on four-year colleges available in the Counseling Center.

### Associate of Arts Degree\*

30 hours in Home Economics and 30 hours in General Education courses.

#### First Semester

HMEC 142	Home Management	3
BUS 123	Personal Finance	3
HMEC 131	Family Communications	3
	Electives	6
	<b>TOTAL HOURS</b>	<b>15</b>

#### Second Semester

ITMD 121	Interior Design I	3
BUS 125	Savings and Investment	3
	Electives	6
	<b>TOTAL HOURS</b>	<b>12</b>

#### Third Semester

ITMD 232	Housing and Equipment	3
SEC 136	Records Management	3
	Electives	9
	<b>TOTAL HOURS</b>	<b>15</b>

#### Fourth Semester

FASH 220	Fashion in Society	3
FASH 242	Merchandise Evaluation	3
HMEC 151	Nutrition & Meal Planning	3
	Electives	6
	<b>TOTAL HOURS</b>	<b>15</b>

### Certificate Program:

30 hours Family Economics

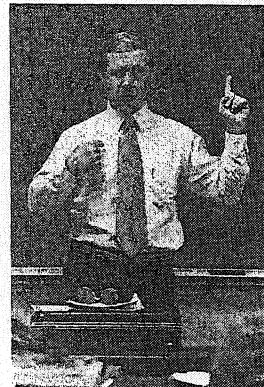
#### First Semester

HMEC 142	Home Management	3
BUS 123	Personal Finance	3
HMEC 131	Family Communications	3
ITMD 121	Interior Design I	3
SEC 136	Records Management	3
	<b>TOTAL HOURS</b>	<b>15</b>

#### Second Semester

BUS 125	Savings and Investment	3
ITMD 232	Housing and Equipment	3
FASH 220	Fashion in Society	3
FASH 242	Merchandise Evaluation	3
HMEC 151	Nutrition & Meal Planning	3
	<b>TOTAL HOURS</b>	<b>15</b>

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



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

## HOSPITALITY MANAGEMENT

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

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

### Associate of Technical Arts Degree

#### First Semester

HMGT 121	Hospitality Management Fundamentals	3	<b>CR</b>
HMGT 123	Basic Food Preparation	3	
ENGL 121	Composition I	3	
HMGT 271	Seminar in Purchasing	2-3	
MATH 120	Business Math	3	
	<b>TOTAL HOURS</b>	<b>14-15</b>	

#### Second Semester

HMGT 126	Food Management	4
HMGT 128	Supervisory Management	3
HMGT 274	Seminar in Accounting	2-3
PSYC 121	Applied Psychology	3
	Elective	3
	<b>TOTAL HOURS</b>	<b>15-16</b>

#### Summer Semester

HMGT 275	Seminar Hosp. Management/ Internship	2-3
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#### Third Semester

HMGT 277	Seminar in Menu Planning and Sales Promotion	2-3
HMGT 219	Hotel-Motel Operations	3
HMGT 221	Design Techniques	3
SPD 120	Interpersonal Communication	3
HMEC 151	Nutrition	3
LC 150	Job Search Skills	1
	<b>TOTAL HOURS</b>	<b>13-14</b>

#### Fourth Semester

HMGT 230	Intermediate Food Preparation	3
HMGT 228	Advanced Hosp. Management	3
HMGT 279	Beverage Control	2-3
HMGT 226	Food Specialties: Garde Manger	3
	Health or Phys. Dev. Elective	1
	Humanities Elective	3
	<b>TOTAL HOURS</b>	<b>15-16</b>

**Certificate Program:**

HMGT 121	Hospitality Management Fundamentals	3
HMGT 123	Basic Food Preparation Communications Elective	3
MATH 120	Business Math	3
HMGT 271	Seminar in Purchasing	2-3
HMGT 126	Food Management	4
HMGT 128	Supervisory Management	3
HMGT 274	Seminar in Accounting	2-3
HMGT 275	Seminar: Hosp. Management Internship	2-3
	Elective	3
	<b>TOTAL HOURS</b>	<b>30-31</b>

**Third Semester**

IWP 132	Word Processing Applications II	3
IWP 241	Directed Experience I*	1
SEC 274	Human Relations Seminar	3
DP 124	Business Data Processing Physical Education/Health Elective	3
SEC 231	Secretarial Procedures II	3
	<b>TOTAL HOURS</b>	<b>3</b>

**Fourth Semester**

IWP 250	Directed Experience II*	1
SEC 271	Management Seminar	2-3
SEC 136	Records Management Electives	3
	<b>TOTAL HOURS</b>	<b>17</b>

\*Courses being developed

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

**INFORMATION/WORD PROCESSING**

Text editing ... disks ... memory ... these are just a few of the terms you will here in today's automated office. Whether you plan to become a word processing specialist or a secretary, a familiarity with word processing concepts, equipment and procedures is important.

JCCC's Information/Word Processing career program offers two options. You may pursue the two-year Word Processing Specialist program. Or, if you're interested in managing an automated office, you may pursue the Information Processing Management Program. It focuses on personnel issues, equipment selection and operational procedurs as well as the management skills and technical knowledge needed by the professional holding this position. Both of these programs lead to the Associate of Technical Arts Degree.

**Associate of Technical Arts Degree Word Processing Specialist**

<b>First Semester</b>	<b>CR</b>	
ENGL 121	Composition I	3
ECON 130	Basic Economics	3
	or	
ECON 230	Economics I	3
SEC 122	Intermediate Typing	3
IWP 131	Word Processing Concepts	3
MATH 111	Fundamentals of Math	3
	<b>TOTAL HOURS</b>	<b>15</b>

**Second Semester**

IWP 121	Word Processing Applications I	3
ACCT 111	Small Business Accounting Humanities/Fine Arts Elective	3
SEC 223	Machine Transcription	3
SEC 230	Secretarial Procedures I	3
	<b>TOTAL HOURS</b>	<b>15</b>

**Associate of Technical Arts Degree Information Processing Management**

<b>First Semester</b>	<b>CR</b>	
ENGL 121	Composition I	3
ECON 130	Basic Economics	3
	or	
ECON 230	Economics I	3
MATH 115	Introduction to Algebra	3
IWP 131	Word Processing Concepts	3
SEC 101	Keyboarding	1
BUS 121	Introduction to Business	3
	<b>TOTAL HOURS</b>	<b>16</b>

**Second Semester**

IWP 211	Information Processing Management	3
DP 124	Business Data Processing	3
BUS 150	Business Communications	3
BUS 140	Principles of Supervision Humanities/Fine Arts Elective	3
	<b>TOTAL HOURS</b>	<b>15</b>

**Third Semester**

IWP 232	Information Processing Management Applications	3
ACCT 121	Accounting I	3
BUS 141	Principles of Management Physical Education/Health Elective	3
	General Electives	7
	<b>TOTAL HOURS</b>	<b>17</b>

**Fourth Semester**

BUS 243	Personnel Management	3
DP 140	Editor	3
IWP 270	Internship IP Management*	1-2
	General Electives	8-9
	<b>TOTAL HOURS</b>	<b>16</b>

\*Courses being developed

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



## INTERIOR MERCHANDISING

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

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

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

### Associate of Technical Arts Degree

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

### Second Semester

ITMD	122 Interior Design II	3
BUS	140 Principles of Supervision	3
ITMD	132 Interior Products	3
MKT	134 Creative Retail Selling	3
	Humanities and Art Elective	3
	<b>TOTAL HOURS</b>	<b>15</b>

### Third Semester

ITMD	223 Interior Design III*	3
ITMD	272 Seminar: Practices & Procedures	2
ITMD	282 Practicum I: Design Time on House*	1
ITMD	231 History of Furniture Design	3
ECON	230 Economics I	3
ITMD	232 Housing & Equipment	3
	Elective	3
	<b>TOTAL HOURS</b>	<b>18</b>

### Fourth Semester

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

\*Course being developed

## INTERPRETER TRAINING

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

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

### Suggested Sequence of Courses\*

#### First Semester

INTR	120 Non-Verbal Communication as a Sign Language Base	3
INTR	125 Elementary ASL	8
INTR	130 Orientation to Interpreting	3
INTR	135 ASL Theory	3
	<b>TOTAL HOURS</b>	<b>17</b>

#### Second Semester

INTR	132 Intermediate ASL	7
INTR	140 Advanced ASL I	5
INTR	142 Fingerspelling I	3
INTR	145 Deaf Culture	3
	<b>TOTAL HOURS</b>	<b>18</b>

#### Third Semester

INTR	230 Advanced ASL II	3
INTR	242 Fingerspelling II	1
INTR	250 Interpreting I	6
LC	106 Vocabulary Development	1
	<b>TOTAL HOURS</b>	<b>11</b>

#### Fourth Semester

INTR	240 Advanced ASL III	1
INTR	255 Interpreting II	3
INTR	225 Interpreters and Physical "Burn Out"	1
INTR	281 Practicum	3
	Electives	6
	<b>TOTAL HOURS</b>	<b>14</b>

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

Many career programs include some form of on-the-job training so classroom skills are applied in real job settings.

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





## MANUFACTURING TECHNOLOGY

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

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

### Associate of Science Degree

First Semester - Fall		CR
MFAB 140	Introduction to Metal Fabrication . . . .	3
MFTG 121	Manufacturing Processes and Testing . . .	3
MATH 143	Math for Electronics I . . . . .	5
DRAF 132	Technical Drafting I . . . . .	5
TOTAL HOURS . . . . .		16

Second Semester - Spring		
MFAB 121	Introduction to Welding . . . . .	3
MFTG 132	Metallurgy . . . . .	1
ELEC 120	Introduction to Electronics . . . . .	3
DRAF 230	Computer-Aided Drafting 2-D . . . . .	3
DP 131	BASIC for Engineering Technology . . .	3
MATH 144	Math for Electronics II . . . . .	4
TOTAL HOURS . . . . .		17

Third Semester - Fall		
MFAB 130	MIG and TIG I . . . . .	3
MFTG 126	Machine Tool Processes I . . . . .	3
ELEC 121	Circuit Analysis I . . . . .	3
ENGL 121	Composition I . . . . .	3
	Health & Phys. Dev. Elective . . . . .	1
	Humanities-Fine Arts Elective . . . . .	3
TOTAL HOURS . . . . .		16

Fourth Semester - Spring		
MFTG 122	Robotics . . . . .	2
MFTG 124	Robotic Applications . . . . .	2
ENGL 123	Technical Writing . . . . .	3
PHYS 125	Technical Physics I . . . . .	3
	Technical Elective . . . . .	3
	Social Science or Economics . . . . .	3
TOTAL HOURS . . . . .		16

### Electives and Technical Electives:

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

## MARKETING AND MANAGEMENT

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

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

### Associate of Technical Arts Degree

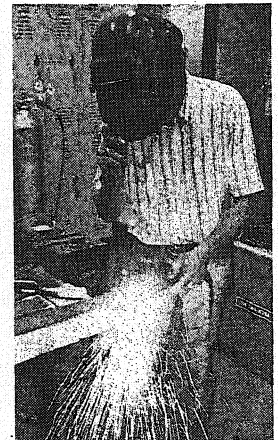
First Semester		CR
ACCT 111	Small Business Accounting . . . . .	3
	or	
ACCT 121	Accounting I . . . . .	3
MKT 133	Salesmanship . . . . .	3
	or	
MKT 134	Creative Retail Selling . . . . .	3
ENGL 121	Composition I . . . . .	3
MKT 271	Marketing & Management Seminar: Organization & Operation . . . . .	3
	Communications Elective . . . . .	3
TOTAL HOURS . . . . .		15

Second Semester		
BUS 140	Principles of Supervision . . . . .	3
MATH 120	Business Math . . . . .	3
MKT 221	Sales Management . . . . .	3
	Health or Phys. Dev. Elective . . . . .	1
	Business Elective . . . . .	3
MKT 272	Marketing and Management Seminar: Management Decisions . . . . .	2-3
TOTAL HOURS . . . . .		15-16

Third Semester		
BUS 230	Marketing . . . . .	3
BUS 261	Business Law . . . . .	3
PHIL 143	Ethics . . . . .	3
BUS 243	Personnel Management . . . . .	3
MKT 274	Marketing & Management Seminar: Management . . . . .	2-3
TOTAL HOURS . . . . .		14-15

Fourth Semester		
BUS 141	Principles of Management . . . . .	3
ECON 130	Basic Economics . . . . .	3
	or	

People of all nationalities with a limited command of English can improve their conversational and written skills in JCCC's English as a Second Language classes.



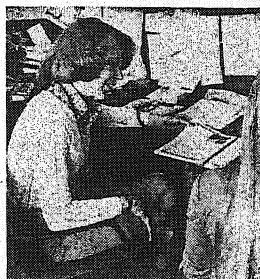
If you are a veteran, you may be eligible for educational benefits under the G.I. Bill of Rights.

ECON 230	Economics I	3
MKT 273	Marketing & Management Seminar:	
	Marketing Research	2-3
	Electives	9
	<b>TOTAL HOURS</b>	<b>17-18</b>

<i>Fourth Semester</i>		
KMLT 104	Departmental Seminar	3
KMLT 105	Applied Immunology	3
KMLT 205	Clinical Practicum III	10
SPD 120	Interpersonal Communication	3
	<b>TOTAL HOURS</b>	<b>19</b>

Adults who did not complete high school can earn a high school equivalency through the GED program.

## 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 concentrate on 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 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.

### Associate of Science Degree

#### First Semester

BIOL 144	Human Anatomy and Physiology	5
CHEM 122	Principles of Chemistry	5
ENGL 121	Composition I	3
	Missouri Constitution*	3
KMLT 100	Intro. to Clinical Laboratory	1
	<b>TOTAL HOURS</b>	<b>17</b>

#### Second Semester

BIOL 230	Microbiology	3
BIOL 231	Microbiology Lab	2
CHEM 140	Principles of Organic Chemistry	5
MATH 116	Intermediate Algebra	3
KMLT 101	Fund. Techniques & Procedures	3
	<b>TOTAL HOURS</b>	<b>16</b>

#### Summer

KMLT 106	Diagnostic Microbiology	3
KMLT 206	Clinical Practicum I	5
	<b>TOTAL HOURS</b>	<b>8</b>

#### Third Semester

KMLT 102	Clinical Chemistry	4
KMLT 103	Hematology	3
KMLT 203	Clinical Practicum II	10
	<b>TOTAL HOURS</b>	<b>17</b>

Your counselor can help you decide what course of study to follow by providing you with current, useful information.

## MENTAL HEALTH TECHNOLOGY

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

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

#### First Semester

PSYC 130	Introduction to Psychology	3	<b>CR</b>
BIOL 144	Human Anatomy/Physiology	5	
MHT 125	Mental Health Technology I	4	
	Elective	3	
	<b>TOTAL HOURS</b>	<b>15</b>	

#### Second Semester

PSYC 215	Child Development	3
SOC 125	Social Problems	3
MHT 130	Mental Health Technology II	6
	Elective	3
	<b>TOTAL HOURS</b>	<b>15</b>

#### Third Semester

SOC 131	Marriage and the Family	3
MHT 225	Mental Health Technology III	6
	Electives	6
	<b>TOTAL HOURS</b>	<b>15</b>

#### Fourth Semester

MHT 230	Mental Health Technology IV	7
	Electives	8
	<b>TOTAL HOURS</b>	<b>15</b>

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

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

## METAL FABRICATION

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

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

### Associate of Science Degree

<i>First Semester - Fall</i>		<b>CR</b>
MFAG 121	Introduction to Welding .....	3
MFAB 130	MIG and TIG I .....	3
MFTG 126	Machine Tool Processes I .....	3
MATH 133	Technical Math I .....	3
	<b>TOTAL HOURS .....</b>	<b>11</b>

<i>Second Semester - Spring</i>		
MFAB 125	Advanced Gas and Arc Welding ....	3
MFAB 230	MIG and TIG II .....	3
MFTG 128	Machine Tool Processes II .....	3
MFTG 132	Metallurgy .....	1
ENGL 121	Composition I .....	3
	<b>TOTAL HOURS .....</b>	<b>13</b>

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

MFTG 121	Manufacturing Processes & Testing ..	3
MFAB 140	Introduction to Metal Fabrication ....	3
DRAF 125	Interp. of Welding Drawings .....	2
	<b>TOTAL HOURS .....</b>	<b>8</b>

## NURSING

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

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

### Associate of Science Degree

<i>Summer Semester</i>		<b>CR</b>
CHEM 122	Principles of Chemistry** .....	5

<i>First Semester</i>		
BIOL 140	Anatomy .....	4
PSYC 130	Intro. to Psychology .....	3
NURS 121	Concepts of Health (F) .....	8
	<b>TOTAL HOURS .....</b>	<b>15</b>

<i>Second Semester</i>		
BIOL 225	Physiology .....	4
PSYC 215	Child Development .....	3
NURS 122	Adaptation to Change (S) .....	8
	<b>TOTAL HOURS .....</b>	<b>15</b>

<i>Third Semester</i>		
NURS 221	Short-Term Health Problems (F) ....	9
	Social Science Elective* .....	3
ENG 121	Composition I .....	3
	<b>TOTAL HOURS .....</b>	<b>15</b>

<i>Fourth Semester</i>		
NURS 222	Long-Term Health Problems (S) ....	9
	Humanities Elective* .....	3
	Communications Elective* .....	3
	<b>TOTAL HOURS .....</b>	<b>15</b>

\*You may select specific courses to meet these requirements from this list:

**SOCIAL SCIENCES:** Sociology, Social Problems  
**COMMUNICATIONS and HUMANITIES:** Courses should be selected in consultation with the program coordinator or a counselor.

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

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



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

If you wish to join a club - or form one of your own - contact the Student Activities Office.

## OCCUPATIONAL THERAPY ASSISTANT

Through JCCC's affiliation with the Kansas City Regional Council for Higher Education, JCCC students may take one course per semester at any participating area college or university at the JCCC tuition rate. See the Admissions/Records Office for details.

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

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

### Associate of Science Degree

First Semester		CR
KOT	100 Introduction to Occupational Therapy	2
MRT	110 Medical Terminology I	2
BIOL	120 Life Science	4
ENGL	121 Composition I	3
PSYC	130 Introduction to Psychology	3
	Missouri Constitution*	3
	<b>TOTAL HOURS</b>	<b>17</b>

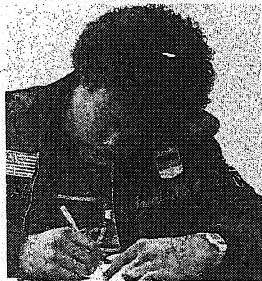
Second Semester		
KOT	101 Occupational Therapy Growth and Development	3
KOT	102 Occupational Therapy in Mental Health	3
SPD	120 Interpersonal Communication	3
BIOL	144 Anatomy and Physiology	5
	<b>TOTAL HOURS</b>	<b>14</b>

Summer Semester		
KOT	103 Clinical Conditions	3
KOT	104 Therapeutic Media	2
	Art Elective	3
	<b>TOTAL HOURS</b>	<b>8</b>

Third Semester		
KOT	201 Occupational Therapy in Mental Health II	5
KOT	202 Occupational Therapy in Physical Disabilities	5
KOT	203 Shop Practices/Orthotics	2
KOT	204 Therapeutic Media II	3
	<b>TOTAL HOURS</b>	<b>15</b>

Fourth Semester		
KOT	200 Principles of Occupational Therapy	2
KOT	205 Fieldwork in Occupational Therapy I	3
KOT	206 Fieldwork in Occupational Therapy II	3
KOT	207 Clinical Seminar	2
SOCI	122 Sociology	3
	<b>TOTAL HOURS</b>	<b>13</b>

\*Course to be taken at PVCC.



JCCC sponsors a variety of varsity sports for men and women.

## PARALEGAL

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

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

### Associate of Technical Arts Degree

First Semester		CR
PL	121 Introduction to Law	3
PL	123 Paralegal Professional Studies	1
PL	131 Legal Research	3
ENGL	121 Composition I	3
	Required Social Science and/or Economics Course	3
	Required Humanities and Arts Course	3
	<b>TOTAL HOURS</b>	<b>16</b>

Second Semester		
PL	132 Litigation I	3
SPD	120 Interpersonal Communication	3
MATH	120 Business Math	3
	Paralegal Electives	4
	General Electives	3
	<b>TOTAL HOURS</b>	<b>16</b>

Third Semester		
PL	271 Seminar: Legal Interviewing and Investigation	2
PL	275 Paralegal Internship I	1
	Required Physical Development and/or Health Course	1
	Paralegal Electives	3
	General Electives	9
	<b>TOTAL HOURS</b>	<b>16</b>



<b>Fourth Semester</b>	
PL 276	Paralegal Internship II . . . . . 1
	Paralegal Electives . . . . . 3
	General Electives . . . . . 12
	<b>TOTAL HOURS . . . . . 16</b>

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

**Certificate Program (for qualifying students)**

<b>Required Courses</b>	
PL 121	Introduction to Law . . . . . 3
PL 123	Paralegal Professional Studies . . . . . 1
PL 131	Legal Research . . . . . 3
PL 132	Litigation I . . . . . 3
PL 271	Seminar: Legal Interviewing and Investigation . . . . . 2
PL 275	Paralegal Internship I . . . . . 1
	Paralegal Electives . . . . . 11
	<b>TOTAL HOURS . . . . . 24</b>

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

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

<b>Summer Semester</b>	
KPT 155	Rehabilitation . . . . . 4
KPT 161	Fundamentals of Modalities II . . . . . 5
	<b>TOTAL HOURS . . . . . 9</b>

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

<b>Fourth Semester</b>	
KPT 172	Clinical Experience II . . . . . 11
KPT 173	Clinical Seminar II . . . . . 2
	<b>TOTAL HOURS . . . . . 13</b>

\*Course to be taken at Penn Valley

*Evening credit courses are listed in boldface in the Credit Schedule.*

## PHYSICAL THERAPY ASSISTANT

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

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

### Associate of Science Degree

<b>First Semester</b>	
MRT 110	Medical Terminology I . . . . . 2

## RADIOLOGIC TECHNOLOGY

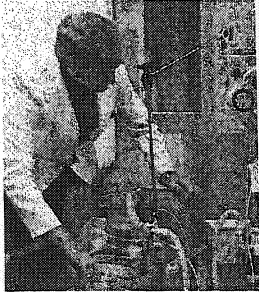
The Radiologic Technology Program (X-ray technology) consists of a continuous 26-month period. You will study areas such as radiographic exposure, positioning and anatomy and the use of the imaging equipment. This is a cooperative program between JCCC and Penn Valley Community College. You must be formally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

### Associate of Science Degree

<b>First Semester</b>		<b>CR</b>
KRAD 169	Medical and Radiology Terms . . . . . 3	
KRAD 170	Radiological Technology I . . . . . 3	

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

If you have a quick question about grammar, call the Grammar Hotline at 888-8500, ext. 3439.



KRAD 171	Radiographic Exposures I	3
KRAD 172	Radiographic Positioning I	3
KRAD 173	Clinical Training I	2
	<b>TOTAL HOURS</b>	<b>14</b>

**Second Semester**

BIOL 144	Anatomy and Physiology	5
KRAD 174	Radiographic Exposures II	3
KRAD 175	Clinical Training II	2
KRAD 176	Radiographic Positioning II	3
PSYC 130	Introduction to Psychology	3
	<b>TOTAL HOURS</b>	<b>16</b>

**Summer**

ENGL 121	Composition and Reading	3
SOC 122	Sociology	3
KRAD 178	Clinical Training III	1
	<b>TOTAL HOURS</b>	<b>7</b>

**Third Semester**

PSC1 120	Introduction to Physics	4
SPD 122	Interpersonal Communications	3
KRAD 270	Radiographic Positioning III	3
KRAD 280	Clinical Training IV	2
	<b>TOTAL HOURS</b>	<b>12</b>

**Fourth Semester**

	Missouri Constitution*	3
KRAD 278	Radiological Technology II	3
KRAD 281	Physics of X-ray Equipment	4
KRAD 282	Clinical Training V	2
	<b>TOTAL HOURS</b>	<b>12</b>

**Summer**

KRAD 283	Final Seminar	3
KRAD 284	Clinical Training VI	1
KRAD 285	Special Procedures	3
	<b>TOTAL HOURS</b>	<b>7</b>

**Fifth Semester**

KRAD 287	Clinical Training VII	3
KRAD 288	Special Procedures	3
	<b>TOTAL HOURS</b>	<b>3-12</b>

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

JCCC offers a career program in which you can begin your career in recreational leadership. It includes courses in ceramics, sculpture and other arts as well as courses in archery, racquetball and other sports-related areas. You will have the opportunity to gain practical experience through supervised work experience at various recreation agencies in Johnson County and in area hospitals. If you wish to some day hold a supervisory position and if you are interested in a larger salary, you will want to continue your education at a four-year university or school.

**Associate of Arts Degree**

**First Semester**

		<b>CR</b>
ENGL 121	Composition I	3
SOC 122	Sociology	3
PD 205	Individual Lifetime Sports	2
RECL 121	Introduction to Recreational Services	3
PD 215	Fall Sports Officiating	2
HLTH 120	First Aid/CPR	3
	<b>TOTAL HOURS</b>	<b>16</b>

**Second Semester**

ENGL 122	Composition II	3
RECL 123	Social Recreation	2
RECL 125	Outdoor Recreation	3
PSYC 225	Educational Psychology	3
BIOL 120	Life Science	4
	Phys. Dev. Elective	1
	<b>TOTAL HOURS</b>	<b>16</b>

**Third Semester**

HUM 122	Introduction to Humanities	3
HLTH 125	Personal Health/Community Hygiene	3
PD 245	Elementary Physical Education	3
SPD 121	Public Speaking	3
MATH 120	Business Math	3
	Phys. Dev. Elective	1
	<b>TOTAL HOURS</b>	<b>16</b>

**Fourth Semester**

PD 110	Beginning Racquetball	1
RECL 271	Recreational Field Study	3
PD 220	Spring Sports Officiating	2
	Social Science Elective	3
HLTH 250	Care & Prevention of Athletic Injuries	3
MATH 115	Introduction to Algebra	3
	Phys. Dev. Elective	1
	<b>TOTAL HOURS</b>	<b>16</b>

You will be referred to a counselor when you first come to JCCC. But you are free to change counselors at any time.



**RECREATIONAL LEADERSHIP**

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

**RESPIRATORY THERAPY**

The respiratory therapist is an essential part of the critical care team who is skilled in the treatment, management and preventive care of patients with cardio-pulmonary problems. The therapist uses a wide range of sophisticated ventilatory and monitoring equipment and provides many vital services in the hospital working with people of all ages. The need for

respiratory therapists continues to grow in outpatient clinics and public health agencies as the national trend away from extended hospital stays continues.

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

**Associate of Science Degree**

<i>Summer Session</i>		<b>CR</b>
CHEM 122	Principles of Chemistry . . . . .	5
ENGL 121	Composition I . . . . .	3
	<b>TOTAL HOURS . . . . .</b>	<b>8</b>

<i>First Semester</i>		
BIOL 140	Human Anatomy . . . . .	4
MATH 171	College Algebra . . . . .	3
SPD 120	Interpersonal Communications . . . . .	3
PSCI 120	Physical Science . . . . .	4
	<b>TOTAL HOURS . . . . .</b>	<b>14</b>

<i>Second Semester</i>		
BIOL 225	Human Physiology . . . . .	4
BIOL 230	Microbiology . . . . .	3
BIOL 231	Microbiology Lab . . . . .	2
	<b>TOTAL HOURS . . . . .</b>	<b>9</b>

<i>Summer Session</i>		
RT 125	Beginning Principles of Respiratory Therapy . . . . .	4
RT 130	Respiratory Therapy Equipment . . . . .	4
RT 135	Cardiopulmonary Medicine I . . . . .	1
	<b>TOTAL HOURS . . . . .</b>	<b>9</b>

<i>Third Semester</i>		
RT 220	Clinical Cardiopulmonary Physiology . . . . .	4
RT 271	Clinical Practice I . . . . .	4
RT 230	Clinical Topics and Procedures I . . . . .	3
RT 235	Cardiopulmonary Medicine II . . . . .	2
RT 245	Respiratory Pharmacology . . . . .	2
	<b>TOTAL HOURS . . . . .</b>	<b>15</b>

<i>Fourth Semester</i>		
RT 272	Clinical Practice II . . . . .	4
RT 231	Clinical Topics & Procedures II . . . . .	4
RT 233	Respiratory Care of Children . . . . .	2
RT 236	Cardiopulmonary Medicine III . . . . .	2
	<b>TOTAL HOURS . . . . .</b>	<b>12</b>

**SECRETARIAL CAREERS**

Good office skills are essential to becoming a good secretary. The ability to type well and to manage records, a background in accounting, a familiarity with data processing and word processing skills are just a

few of the areas in which you need to be proficient. Job prospects for secretaries who are familiar with a wide range of automated office machines are likely to be better than for those without.

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

**Associate of Technical Arts Degree Secretarial Science**

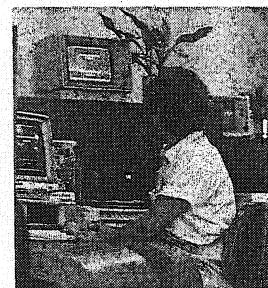
<i>First Semester</i>		<b>CR</b>
BUS 121	Introduction to Business . . . . .	3
ENGL 121	Composition I . . . . .	3
SEC 122	Intermediate Typing . . . . .	3
SEC 125	Shorthand I . . . . .	3
	or	
SEC 130	Stenoscrypt Speedwriting Shorthand . . . . .	3
SEC 274	Human Relations Seminar . . . . .	2-3
	Electives . . . . .	2
	<b>TOTAL HOURS . . . . .</b>	<b>16-17</b>

<i>Second Semester</i>		
DP 124	Business Data Processing . . . . .	3
SEC 136	Records Management . . . . .	3
SEC 126	Shorthand II . . . . .	3
	or	
SEC 131	Stenoscrypt Dictation Transcription . . . . .	3
SEC 135	Electronic Calculators . . . . .	1
SEC 271	Management Seminar . . . . .	2-3
	Electives . . . . .	2
	<b>TOTAL HOURS . . . . .</b>	<b>17-18</b>

<i>Third Semester</i>		
SEC 230	Secretarial Procedures I . . . . .	3
ACCT 121	Accounting I . . . . .	3
	or	
ACCT 111	Small Business Accounting . . . . .	3
MATH 120	Business Math . . . . .	3
	Humanities or Fine Arts Elective . . . . .	3
SEC 276	Administrative Office Management Seminar . . . . .	2-3
	Elective . . . . .	2
	<b>TOTAL HOURS . . . . .</b>	<b>16-17</b>

<i>Fourth Semester</i>		
SEC 231	Secretarial Procedures I . . . . .	3
SEC 223	Machine Transcription . . . . .	3
ECON 230	Economics I . . . . .	3
	or	
ECON 130	Basic Economics . . . . .	3
	Physical Development or Health Elective . . . . .	1
SEC 279	Business Law Seminar . . . . .	2
	Electives . . . . .	2
	<b>TOTAL HOURS . . . . .</b>	<b>14-15</b>

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



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

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

**Associate of Technical Arts Degree  
Medical Secretary**

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

<b>Second Semester</b>			
SEC	136	Records Management	3
MRT	112	Medical Terminology II	1
SEC	126	Shorthand II	3
or			
IWP	132	Word Processing Applications II	3
ECON	230	Economics I	3
Physical Development or Health Elective			
SEC	271	Management Seminar	2-3
			Electives 4
			<b>TOTAL HOURS 17-18</b>

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

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

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

**Associate of Technical Arts Degree  
Legal Secretarial Option**

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

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

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

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

<b>Recommended Electives</b>			
BUS	150	Business Communications	3
DP	124	Business Data Processing	3
BUS	121	Introduction to Business	3
SEC	225	Dictation/Transcription	3
BUS	261	Business Law I	3
BUS	263	Business Law II	3
PL	171	Law Office Systems	3
SPD	120	Interpersonal Communication	3

<b>Certificate Program</b>			
SEC	122	Intermediate Typing	3
ACCT	111	Small Business Accounting	3
SEC	230	Secretarial Procedures I	3
SEC	231	Secretarial Procedures II	3
ENGL	121	Composition I	3
SEC	136	Records Management	3
SEC	135	Electronic Calculators	1



If you are enrolling in your first English course at JCCC, you must take an assessment test in the Testing/Assessment Center.

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



IWP	121	Word Processing Applications I . . . . .	3	BIOL	231	Microbiology Lab . . . . .	2
		or				TOTAL HOURS . . . . .	27
SEC	223	Machine Transcription . . . . .	3				
SEC	271	Management Seminar . . . . .	2-3				
SEC	274	Human Relations Seminar . . . . .	2-3				

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

All the buildings on campus face inward on open courtyards.

## SMALL ANIMAL HEALTH

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

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

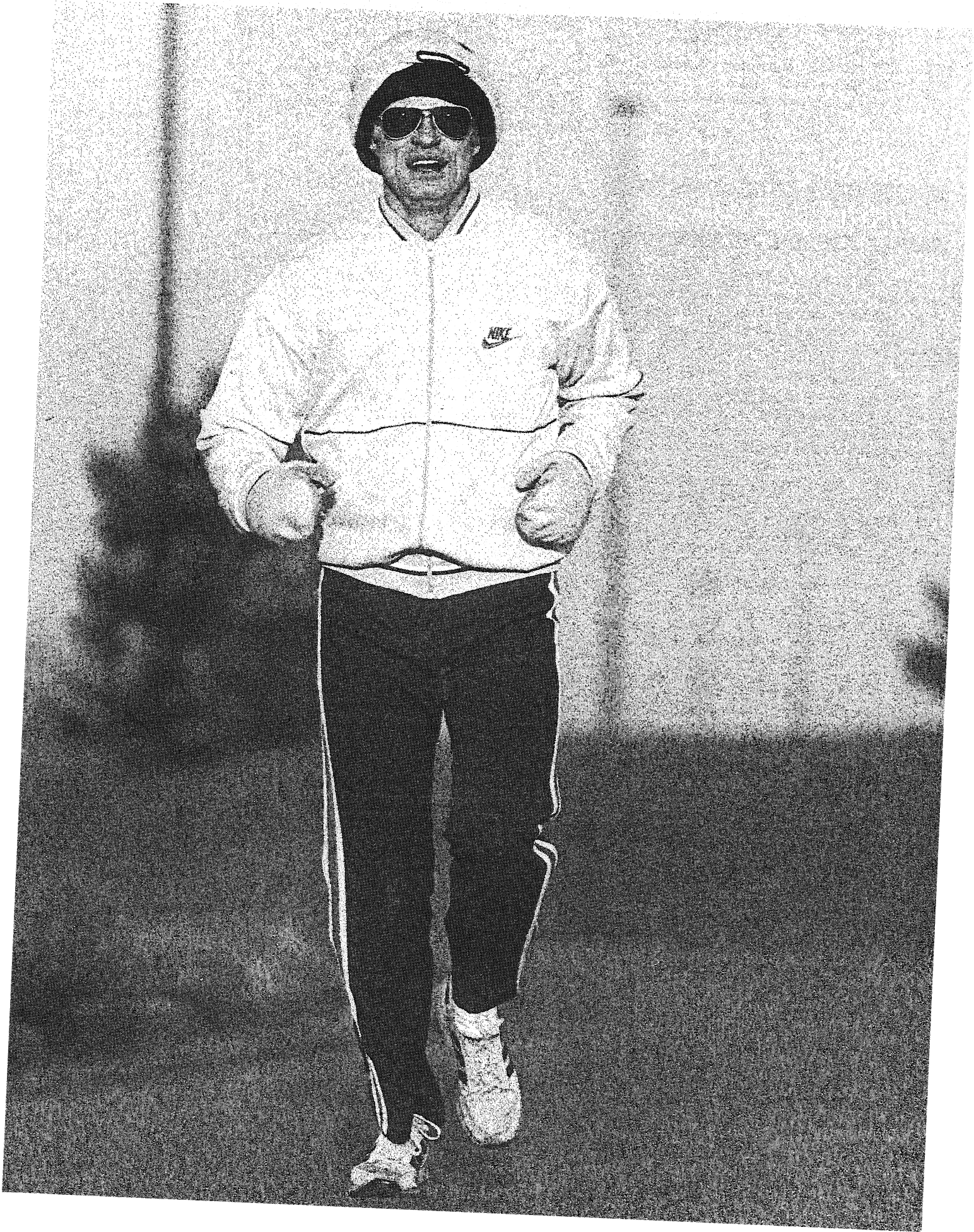
All parking at JCCC is free.

### Associate of Science Degree

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

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

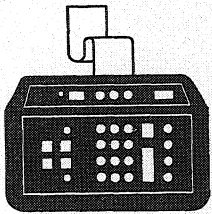




# ***COURSE DESCRIPTIONS***



The Career Planning and Placement Center can help you find a job, write a resume, learn to interview and make career changes.



Through the Credit for Life Experience program, you can earn college credit for what you already know.

## ACCOUNTING

### ACCT 111 SMALL BUSINESS ACCOUNTING (3CR)

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

### ACCT 115 ACCOUNTING FOR NONPROFIT ORGANIZATIONS (3CR)

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

### ACCT 121 ACCOUNTING I (3CR)

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

### ACCT 122 ACCOUNTING II (3CR)

Content includes accounts and records peculiar to corporations and manufacturing firms, along with the preparation and use of financial statements. 3 hrs./wk. (BAC 5096)

### ADMJ 271 EMERGENCY DISPATCHER FIELD STUDY (3CR)

*Prerequisite: Only students in appropriate programs will be accepted. Approval of division director required.*

Students will gain on-the-job training under the supervision of a qualified dispatcher in law enforcement, fire protection or emergency medical services. The field study will be conducted at an approved dispatching station and arranged by the JCCC program coordinator. By arrangement. (SLE 5063)

### ACCT 131 FEDERAL INCOME TAXES I (3CR)

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

### ACCT 221 COST ACCOUNTING (3CR)

*Prerequisite: ACCT 122*

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

### ACCT 222 MANAGERIAL ACCOUNTING (3CR)

*Prerequisite: ACCT 122*

The managerial development and use of accounting information will be discussed. Topics include financial statement analysis, cost application and budgeting reports. 3 hrs./wk. (BAC 4063)

### ACCT 231 INTERMEDIATE ACCOUNTING I (3CR)

*Prerequisite: ACCT 122*

Topics include the valuation of balance sheet accounts, fund flow analysis, cash and receivables, inventories, fixed assets and liabilities. 3 hrs./wk. (BAC 6299)

### ACCT 232 INTERMEDIATE ACCOUNTING II (3CR)

*Prerequisite: ACCT 122*

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

### ACCT 271 FIELD STUDY: HUMAN RELATIONS (2-3CR)

Human relations, communications and decision making will be important topics in this class. Weekly class discussions will help student relate human relations to work experience. 2 hrs./wk. (BAC 3870)

### ACCT 272 FIELD STUDY: ACCOUNTING SEMINAR (2-3CR)

*Prerequisite: ACCT 122*

By completing several accounting cycles and practice sets, students will review accounting principles and practices. 2 hrs./wk. (BAC 3871)

## ADMINISTRATION OF JUSTICE

### ADMJ 121 INTRODUCTION TO ADMINISTRATION OF JUSTICE (3CR)

Emphasis will be on the historical and philosophical development of the criminal justice system. Includes participation in the field as well as classroom experience. 3 hrs./wk. (SLE 2080)

### ADMJ 124 STUDY OF THE CRIMINAL JUSTICE SYSTEM (3CR)

Subsystems of the criminal justice system will be analyzed and identified. 3 hrs./wk. (SLE 7108)

### ADMJ 127 CRIMINOLOGY (3CR)

This class explores theories of criminal behavior, treatment, correction, crime prevention and control. Contemporary trends will be highlighted. 3 hrs./wk. (SLE 1585)



**ADMJ 130  
CRIME PREVENTION (3CR)**

Topics of special interest include the techniques public service agencies use to operate crime prevention programs and how to provide technically-accurate, cost-effective security recommendations to the community. 3 hrs./wk. (SLE 4263)

**ADMJ 133  
JUVENILE DELINQUENCY (3CR)**

This class provides an analysis of detention procedures, disposition, custody and treatment of juvenile offenders throughout the United States with a specific interest in area systems. The origin and development of juvenile agencies, organization functions and jurisdiction of juvenile courts also will be studied. 3 hrs./wk. (SLE 3166)

**ADMJ 136  
POLICE AND THE PUBLIC (3CR)**

This course will identify and analyze conflict that arises between police and the communities they serve. 3 hrs./wk. (SLE 6432)

**ADMJ 140  
CONSTITUTIONAL CASE LAW (3CR)**

Students will study Supreme Court decisions which have had significant impact on law enforcement techniques and procedures. 3 hrs./wk. (SLE 4418)

**ADMJ 141  
CRIMINAL LAW (3CR)**

*Prerequisite: ADMJ 124*

The Kansas Criminal Code will be the focus of this class which emphasizes elements of crimes and criminal procedure. 3 hrs./wk. (SLE 4588)

**ADMJ 145  
FUNDAMENTALS OF PRIVATE SECURITY (3CR)**

This overview of the private security field includes a look at how industry, business, government and institutions handle security. 3 hrs./wk. (SLE 5006)

**ADMJ 146  
RETAIL SECURITY (3CR)**

This is a study of retail security supervision and management. Topics include employment practices, employee dishonesty, controlling shoplifters and building and perimeter protection. 3 hrs./wk. (SLE 4163)

**ADMJ 150  
MOTOR VEHICLE LAW (3CR)**

*Prerequisite: ADMJ 124*

This is a study of standard traffic ordinances for Kansas cities with emphasis on fundamentals of traffic regulations and controls as they relate to law enforcement, courts and governmental functions. 3 hrs./wk. (SLE 2461)

**ADMJ 151  
TRAFFIC SAFETY AND  
ACCIDENT INVESTIGATION (3CR)**

Topics include traffic safety; enforcement; identifying, analyzing and investigating the accident; and preparing scale diagrams of the accident. 3 hrs./wk. (SLE 6653)

**ADMJ 154  
FUNDAMENTALS OF CRIMINAL  
INVESTIGATION (3CR)**

*Prerequisite: ADMJ 124*

Topics include crime scene search techniques; collection and preservation of evidence; interviewing; and logical reconstruction of the crime. 3 hrs./wk. (SLE 5137)

**ADMJ 157  
PATROL PROCEDURES (3CR)**

*Prerequisite: ADMJ 121 or ADMJ 124*

This course covers basic police patrol functions including report writing, traffic law enforcement, arrest, search and seizure, patrol and peacekeeping. 3 hrs./wk. (SLE 4033)

**ADMJ 164  
SUPERVISORY TECHNIQUES  
FOR POLICEMEN (3CR)**

*Prerequisite: ADMJ 124*

Current theory and practice of the supervisor's role in the police service will be discussed. 3 hrs./wk. (SLE 7161)

**ADMJ 166  
POLICE ORGANIZATION  
AND MANAGEMENT (3CR)**

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

**ADMJ 221  
INTRODUCTION TO CRIMINALISTICS (3CR)**

*Prerequisite: ADMJ 154*

This course provides training in the techniques and methods used to establish the identity and individualization of persons and things in a criminalistic laboratory. 3 hrs./wk. (SLE 7292)

**ADMJ 225  
DEFENSIVE TACTICS FOR POLICE (3CR)**

*Prerequisite: 15 credit hours in ADMJ courses*

Areas covered in this class include the use of the baton and service revolver and constitutional limitations on the use of force. Students are required to furnish ammunition for the service revolver. 3 hrs./wk. (SLE 7288)

*In 1983, 75 percent of all JCCC students worked 30 hours a week.*

*The history of JCCC is outlined in the beginning of this catalog.*





JCCC has added a new 8-lane track and new tennis courts for instructional and recreational programs.

For scholarship opportunities both at JCCC and at transfer institutions, contact the Financial Aid Office.

### **ADMJ 265 BASIC POLICE TRAINING COURSE (1-15CR)**

*Prerequisite: Student must be currently employed full time by a participating law enforcement agency*

Basic patrol procedures will be covered in this class. This class fulfills and exceeds requirements of the Kansas Minimum Standards Training Act. A minimum of 480 clock hrs., 8 hrs. a day, 5 days/wk. for 12 wks. (SLE 3045)

### **ADMJ 271 EMERGENCY DISPATCHER FIELD STUDY (3CR)**

*Prerequisite: Only students in appropriate programs will be accepted. Approval of division director required.*

Students will gain on-the-job training under the supervision of a qualified dispatcher in law enforcement, fire protection or emergency medical services. The field study will be conducted at an approved dispatching station and arranged by the JCCC program coordinator. By arrangement (SLE 5063)

### **ADMJ 281 READINGS IN POLICE SCIENCE (3CR)**

*Prerequisite: 15 credit hours in ADMJ courses*

The class consists of selected readings in police science on topics such as police administration, criminal investigation, criminology, corrections, juvenile problems and evidence. By arrangement. (SLE 1174)

## **AGRIBUSINESS**

### **AGRI 120 INTRODUCTION TO AGRIBUSINESS (2CR)**

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

### **AGRI 122 AGRICULTURAL ECONOMICS (3CR)**

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

### **AGRI 125 MICROCOMPUTERS IN AGRIBUSINESS (1CR)**

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

### **AGRI 220 PRINCIPLES OF ANIMAL SCIENCE (4CR)**

*Prerequisite: BIOL 127 or BIOL 120 or BIOL 122 and BIOL 123*

The production of beef, swine, sheep, horse and poultry species will be studied. Topics include a

survey of the industry; types, purposes and products of livestock; breeding principles, selection, nutrition, lactation, reproduction; management and marketing. 3 hrs. lecture, 2 hrs. lab/wk. (NAB 2846)

### **AGRI 225 PESTICIDE USE AND SAFETY (4CR)**

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

### **AGRI 230 FUNDAMENTALS OF ANIMAL NUTRITION (3CR)**

*Prerequisite: AGRI 220 and CHEM 122*

This course will examine the composition of various feedstuff classes, nutrient requirements of livestock, ration formulation and balancing and feed processing methods. 3 hrs. lecture/wk. (NAB 2873)

### **AGRI 235 SOIL SCIENCE (4CR)**

*Prerequisites: CHEM 122 or CHEM 124 and CHEM 125, CHEM 131 and CHEM 132*

This is a course designed to acquaint students with the biological, physical and chemical properties of soils. 3 hrs. lecture, 2 hrs. lab/wk. (NAB 5207)

### **AGRI 240 CROP SCIENCE (4CR)**

*Prerequisite: BIOL 125 or BIOL 120 or BIOL 122 and BIOL 123*

This is a review of the production of crop and forage plants. Topics include growth, development, culture, harvesting and storage of grains and forages produced in Kansas. 3 hrs. lecture, 2 hrs. lab/wk. (NAB 2852)

### **AGRI 271 SUPERVISED OCCUPATIONAL EXPERIENCE (5CR)**

*Prerequisite: Completion of first-year of agribusiness program*

Students will work under supervision for a minimum of 240 clock hours in an approved area of agribusiness. By arrangement. (NAB 3727)

## **ANTHROPOLOGY**

### **ANTH 125 CULTURAL ANTHROPOLOGY (3CR)**

The political, economic, religious, family and social aspects of major groups of people around the world will be examined. Hunters, tribesmen, peasants and industrial populations also will be studied. 3 hrs./wk. (SS 1029)

**ANTH 126  
PHYSICAL ANTHROPOLOGY (3CR)**

This study of physical anthropology includes archaeology, human variation, physical evolution, primate societies and the emergence of human society. Cross-disciplinary topics of interest will be included. 3 hrs./wk. (SS 3721)

**ART**

**ART 121  
ART FUNDAMENTALS (3CR)**

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

**ART 123  
ELEMENTARY ART METHODS (3CR)**

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

**ART 124  
DESIGN, 2D (3CR)**

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

**ART 127  
DESIGN, 3D (4CR)**

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

**ART 129  
DESIGN, COLOR (3CR)**

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

**ART 130  
DRAWING I (3CR)**

This introductory drawing course emphasizes the development of fundamental drawing skills. 6 hrs./wk. (HAR 7576)

**ART 131  
DRAWING II (3CR)**

*Prerequisite: ART 130*

Students will concentrate on figure drawing and free-hand drawing with a conceptual approach. 6 hrs./wk. (HAR 3033)

**ART 135  
PAINTING I (3CR)**

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

**ART 136  
PAINTING II (3CR)**

*Prerequisite: ART 135*

In this advanced painting class, emphasis is on personal direction and developing a consistent body of work. 6 hrs./wk. (HAR 6011)

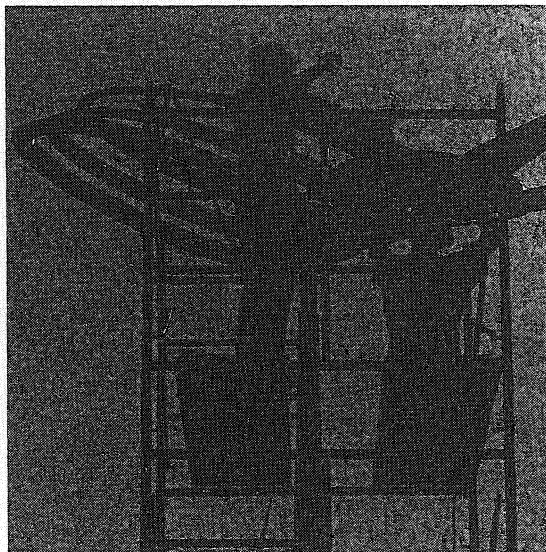
**ART 142  
CERAMICS I (3CR)**

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

**ART 143  
CERAMICS II (3CR)**

*Prerequisite: ART 142*

This course deals with more advanced methods of research with studio experiences in ceramic wheel techniques and glaze research. 6 hrs./wk. (HAR 2211)



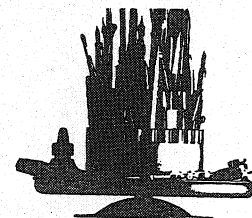
**ART 145  
SCULPTURE I (3CR)**

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

**ART 146  
SCULPTURE II (3CR)**

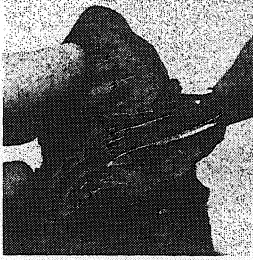
*Prerequisite: ART 145*

This continuation of ART 145 focuses on advanced methods and techniques with emphasis on materials and forms. 6 hrs./wk. (HAR 3094)



*In this catalog, JCCC introduces a new course numbering system. Old course numbers are listed in parentheses at the end of the course description.*

*Some highly-acclaimed regional artists have exhibited at JCCC including Richard Loftis, Michael Stowe and Michael Smirl.*



For related courses, see  
Commercial Art.

The Arts Council of Johnson  
County is housed on  
the JCCC campus.

**ART 148  
METAL AND SILVERSMITHING I (3CR)**

The metalsmithing techniques of casting and constructing brass, copper and silver will be studied along with buffing, sawing, filing and soldering processes. 6 hrs./wk. (HAR 3495)

**ART 149  
METAL AND SILVERSMITHING II (3CR)**

*Prerequisite:* ART 148

Students will study advanced metalsmithing techniques of casting, constructing and etching, using copper, brass, bronze, silver and other materials. 6 hrs./wk. (HAR 3496)

**ART 151  
FIBER DESIGN I (3CR)**

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

**ART 152  
FIBER DESIGN II (3CR)**

*Prerequisite:* ART 151

Advanced problems in structural weaving will be explored using multi-harness looms. Notebook required. 6 hrs./wk. (HAR 7235)

**ART 155  
SMALL LOOM TECHNIQUES (3CR)**

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

**ART 166  
RAKU CERAMICS (3CR)**

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

**ART 172  
WATERCOLOR PAINTING (3CR)**

*Prerequisite:* ART 130 or ART 135

Students will work from a variety of representational and non-objective situations using watercolor as a means to study color, value and composition in transparent media. 6 hrs./wk. (HAR 5405)

**ART 222  
INTRODUCTION TO PRINTMAKING (3CR)**

*Prerequisite:* ART 124 and either ART 130 or CA 130.

This is an introduction to a variety of traditional and contemporary printmaking processes including relief, intaglio, lithography and mixed media. 6 hrs./wk. (HAR 3564)

**ART 225  
SILKSCREEN (3CR)**

*Prerequisite:* ART 124 and either ART 130 or CA 130

An exploration of silkscreen techniques, this class covers paper stencil, hand-cut film and photo stencil processes. 6 hrs./wk. (HAR 4028)

**ART 231  
LIFE DRAWING I (3CR)**

*Prerequisite:* ART 130

Students will work from live models in this study of the fundamentals of figure drawing. 6 hrs./wk. (HAR 2021)

**ART 232  
LIFE DRAWING II (3CR)**

*Prerequisite:* ART 231

This is an advanced figure drawing course in which students will work from live models. 6 hrs./wk. (HAR 6662)

**ART 235  
STUDIO WORKSHOP I (3CR)**

*Prerequisite:* ART 131 or ART 136

Emphasis will be on individual studio activity in painting or drawing with the course content being decided upon by the student under a faculty member's supervision. 6 hrs./wk. (HAR 6879)

**ART 236  
STUDIO WORKSHOP II (3CR)**

*Prerequisite:* ART 235

Emphasis will be on individual studio activity with course content decided upon by the student under the supervision of a faculty member. 6 hrs./wk. (HAR 6880)

**ART 244  
CERAMICS WORKSHOP I (3CR)**

*Prerequisite:* ART 143 and permission of division director.

Students will have the opportunity to pursue advanced individual projects under the direction of an instructor. Emphasis is on building skills in areas not covered in regular ceramic classes. 6 hrs. class-lab./wk. (HAR 5177)

**ART 281  
DIRECTED READINGS IN  
CONTEMPORARY AMERICAN ART (1CR)**

*Prerequisite:* Approval of division director

The technical and philosophical points of view of contemporary American artists are examined in this course. By arrangement. 1 hr./wk. (HAR 3333)



**ART 298****AMERICAN ART SINCE 1945 (1CR)**

A study of American painting and drawing, this class traces developments from 1945 through today. Students will study work in major museums and important commercial galleries through travel to major art centers. 1 hr. lecture, 2 hrs. lab/wk. (HAR 3008)

**AUTOMOTIVE TECHNOLOGY****AUTO 125****INTRODUCTION TO AUTOMOTIVE SHOP PRACTICES (3CR)**

*Corequisite: MATH 111 or satisfactory score on Math Assessment Exam*

Basic skills will be covered including: selection, use of fasteners, service manuals, wiring diagrams and diagnosis charts. 2 hrs. lecture, 3 hrs. lab/wk.

**AUTO 150****AUTOMOTIVE TRANSMISSIONS AND DRIVELINES (4CR)**

*Corequisites: MATH 133, AUTO 125*

In this course the focus is on the theory of the transfer of power from the engine flywheel to the drivewheels, with emphasis on trouble-shooting for transmission, driveline and differential components. 3 hrs. lecture, 3 hrs. lab/wk. Fall. (TAU 5606)

**AUTO 160****AUTOMOTIVE ENGINES I (3CR)**

*Prerequisites: MATH 133, AUTO 125*

Focus will be on the 4-stroke cycle internal combustion engine, computing compression ratio, piston displacement, horsepower and torque and analyzing and correcting internal engine malfunctions. 2 hrs. lecture, 3 hrs. lab/wk. (TAU 5607)

**AUTO 222****AUTOMOTIVE STARTING, CHARGING AND IGNITION (3CR)**

*Prerequisite: AUTO 160*

*Corequisite: PHYS 125*

The function, construction and operation of the starting, ignition and charging systems will be covered in this course. 2 hrs. lecture, 3 hrs. lab/wk. (TAU 5608)

**AUTO 230****AUTOMOTIVE A/C, LIGHTING AND POWER ACCESSORIES (4CR)**

*Prerequisites: PHYS 125, AUTO 160*

Topics include the function, construction and operation of automotive heating, air conditioning, lighting and power systems. 6 hrs. class-lab/wk. (TAU 5611)

**AUTO 235****AUTOMOTIVE DIAGNOSIS AND EVALUATION (4CR)**

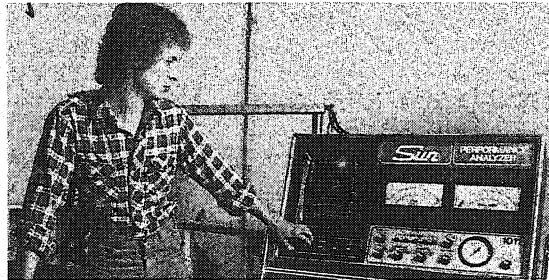
*Prerequisites: AUTO 125, AUTO 150, AUTO 163, AUTO 222, AUTO 225, AUTO 230*

Skills necessary for entry-level employment are emphasized in this class as students are asked to perform skills learned in earlier semesters. Evaluation will be based on industry standards. 8 hrs. class-lab/wk. (TAU 5612)

**AUTO 240****AUTOMOTIVE DEALERSHIP OPERATION (3CR)**

*Prerequisite: MATH 133*

In this course students study the operation of an auto dealership and building design and physical requirements for covered and uncovered areas. 3 hrs. lecture/wk. (TAU 5614)

**AUTO 255****AUTO CARBURETION, DIESEL AND FUEL INJECTION (3CR)**

*Prerequisites: AUTO 160*

Topics include the function, operation and construction of carburetors, fuel pumps, injection pumps and injectors in diesel and gasoline engines. 5 hrs. class-lab/wk. (TAU 5609)

**AUTO 271****AUTOMOTIVE TECHNOLOGY COOPERATIVE EDUCATION (2-9CR)**

*Prerequisite: Approval of division director*

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

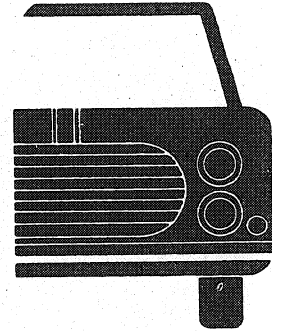
**AUTO 272****AUTOMOTIVE COOPERATIVE EDUCATION II (2-9CR)**

*Prerequisite: AUTO 271 and approval of division director*

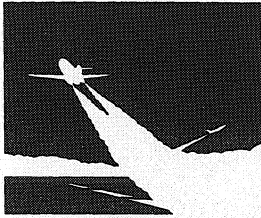
**AUTO 273****AUTOMOTIVE COOPERATIVE EDUCATION III (2-9CR)**

*Prerequisite: AUTO 272 and approval of division director*

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



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



**INTRODUCTION TO AVIATION MAINTENANCE (KAV 100)** is a prerequisite to all Aviation courses.



## AVIATION

### **KAV 100 INTRODUCTION TO AVIATION MAINTENANCE (18CR)**

General aviation practices will be introduced. Also addressed will be theory and practical application in the areas of basic electricity, drafting, fluid lines and fittings, materials and processes, ground operation and servicing, publications, and mechanic's privileges and limitations. 11 hrs. lecture, 15 hrs. lab/wk. (KAV 8451)

### **KAV 101 CARBURETION AND LUBRICATION (8CR)**

*Prerequisite: KAV 100*

This class presents the theory and practical application of engine lubricating systems, engine fuel systems, fuel metering systems and induction systems. 5 hrs. lecture, 5 hrs. lab/wk. (KAV 8461)

### **KAV 102 WOOD AND FABRIC (3CR)**

*Prerequisite: KAV 100*

The fundamentals of wood structures, aircraft covering and aircraft finishes will be introduced. 2 hrs. lecture, 3 hrs. lab/wk. (KAV 8452)

### **KAV 103 AIRCRAFT RECIPROCATING POWER PLANT (6CR)**

*Prerequisite: KAV 100*

Aircraft reciprocating power plants will be introduced along with the theory and practical application of reciprocating engines and engine exhaust systems. 4 hrs. lecture, 5 hrs. lab/wk. (KAV 8462)

### **KAV 104 ASSEMBLY AND RIGGING (6CR)**

*Prerequisite: KAV 100*

Students will focus on the practical application of assembly and rigging and airframe inspection. 4 hrs. lecture, 5 hrs. lab/wk. (KAV 8453)

### **KAV 105 PROPELLERS (5CR)**

*Prerequisite: KAV 100*

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

### **KAV 106 HYDRAULIC AND PNEUMATIC SYSTEMS (8CR)**

*Prerequisite: KAV 100*

Areas covered include inspection, checking, servicing and trouble-shooting hydraulic and pneumatic power systems and air conditioning, pressurization and oxygen systems. 10 hrs. lecture, 11 hrs. lab/wk. (KAV 8454)

### **KAV 107 JET PROPULSION POWER PLANT (5CR)**

*Prerequisite: KAV 100*

Topics include gas turbine engines; principles of operation of gas turbine engines and their application to aircraft today; and inspecting, servicing and trouble-shooting. 4 hrs. lecture, 3 hrs. lab/wk. (KAV 8464)

### **KAV 108 AIRCRAFT ELECTRICAL AND RELATED SYSTEMS (6CR)**

*Prerequisite: KAV 100*

This course presents the theory and application of position and warning systems and ice and rain control systems and related areas. 4 hrs. lecture, 4 hrs. lab/wk. (KAV 8455)

### **KAV 109 AIRCRAFT IGNITION AND STARTING SYSTEMS (4CR)**

*Prerequisite: KAV 100*

The principles of aircraft ignition and starting systems will be introduced with emphasis on the practical application of ignition timing and magneto disassembly and repair. Summer. 5 hrs. lecture, 6 hrs. lab/wk. (KAV 8465)

### **KAV 200 SHEET METAL AND WELDING (7CR)**

*Prerequisite: KAV 100*

Gas welding, sheet metal fabrication and methods for and the application of aircraft structural repair. 3 hrs. lecture, 8 hrs. lab/wk. (KAV 8456)

### **KAV 201 POWER PLANT TESTING (5CR)**

*Prerequisite: KAV 100*

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

### **KAV 202 AIRCRAFT FUEL SYSTEMS AND FIRE PROTECTION, NAVIGATION AND INSTRUMENT SYSTEMS (2CR)**

*Prerequisite: KAV 100*

Aircraft fuel systems and fire protection systems will be addressed. Topics include inspection, checking, servicing and trouble-shooting. 3 hrs. lecture, 3 hrs. lab/wk. for 8 wks. (KAV 8457)

### **KAV 203 ELECTRICITY, GENERATOR-ALTERNATOR (6CR)**

*Prerequisite: KAV 100*

Theory and research related to aircraft engine electrical systems will be presented. 8 hrs. lecture, 8 hrs. lab/wk. for 8 wks. (KAV 8467)

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

**KAV 204  
AIRCRAFT COMMUNICATIONS, NAVIGATION  
AND INSTRUMENT SYSTEMS (6CR)**

*Prerequisite: KAV 100*

This course focuses on the theory and practical application of auto pilot and approach systems and inspection and repair of antenna and equipment installations. 4 hrs. lecture, 4 hrs. lab/wk. (KAV 8458)

**KAV 205  
ENGINE INSTRUMENTS (6CR)**

*Prerequisite: KAV 100*

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

**KAV 206  
AIRFRAME THEORY SURVEY (6CR)**

*Prerequisite: KAV 100*

In this review of airframe theory courses, emphasis is on areas of difficulty. 4 hrs. lecture, 4 hrs. lab/wk. (KAV 8459)

**KAV 209  
SEMINAR IN POWER  
PLANT MAINTENANCE (4CR)**

*Prerequisites: KAV 100, KAV 101, KAV 103, KAV 105, KAV 107, KAV 109, KAV 201, KAV 205*

This is a review of theory and laboratory experiences in previous power plant courses. 3 hrs. lecture, 3 hrs. lab/wk. (KAV 8469)

**KAV 210  
SEMINAR IN AIRFRAME MAINTENANCE (4CR)**

*Prerequisites: KAV 100, KAV 102, KAV 104, KAV 106, KAV 108, KAV 200, KAV 204, KAV 206*

This is a review of theory and laboratory experiences presented in previous airframe courses. 3 hrs. lecture, 3 hrs. lab/wk. (KAV 8460)

**KAV 240  
SHOP AND PERSONNEL MANAGEMENT (9CR)**

*Prerequisite: A & P license and approval of instructor*  
Management and leadership techniques in aviation maintenance will be addressed.

**KAV 242  
POWER PLANT PRACTICAL REVIEW (1CR)**

*Prerequisite: FAA approval for taking the power plant exam*

This is a review of instruction in the common projects required of the aviation maintenance technician. 2½ hrs. lab/wk. for 8 wks.

**KAV 243  
AIRFRAME PRACTICAL REVIEW (1CR)**

*Prerequisite: FAA approval for taking the airframe exam*

This review will help students prepare to take the FAA oral and practical examinations. It covers most common airframe shop practices and procedures. 2½ hrs. lab/wk. for 8 wks.

## BIOLOGY

**BIOL 120  
LIFE SCIENCE (4CR)**

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

**BIOL 122  
PRINCIPLES OF BIOLOGY (3CR)**

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

**BIOL 123  
PRINCIPLES OF BIOLOGY LAB (1CR)**

*Corequisite: BIOL 122 or equivalent*

This introductory lab focuses on the structures and functions of plants and animals. 3 hrs./wk., once a wk. (NLS 5091)

**BIOL 125  
GENERAL BOTANY (5CR)**

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

**BIOL 127  
GENERAL ZOOLOGY (5CR)**

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

**BIOL 130  
ENVIRONMENTAL SCIENCE (3CR)**

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

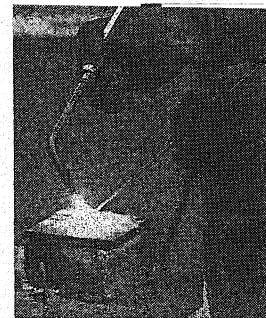
**BIOL 131  
ENVIRONMENTAL SCIENCE LAB (1CR)**

*Corequisite: BIOL 130*

In this lab, students will sample the local environment for air, water and noise pollution. Field trips will include visits to local industries, a water treatment plant and a sewage treatment plant to observe pollution control. 2 hrs. class/wk. plus up to 5 field trips. (NLS 4720)

**BIOL 140  
HUMAN ANATOMY (4CR)**

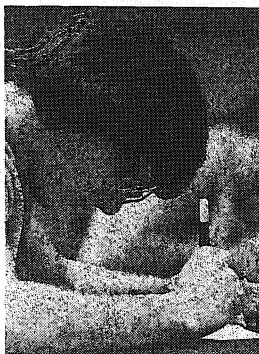
Students will study gross and microscopic aspects of cells, tissues and organ systems of the human body. They will concentrate on a detailed analysis of the structure of each body region. 6 hrs. lecture-lab/wk. (NLS 1128)



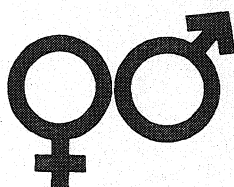
*If you are entering the Nursing or Dental Hygiene programs, you must submit your ACT scores.*



*HUMAN ANATOMY often is offered as a tele-course aired on Overland Park telecable Channel 3A.*



JCCC offers four-week mini sessions and an eight-week session in the summer.



JCCC's Veterans Affairs Office mails a newsletter twice a year to veterans who are students at JCCC.

**BIOL 144  
HUMAN ANATOMY AND PHYSIOLOGY (5CR)**

Students will study the relationship of structure to function in the organ systems of the human body. Emphasis will be on the location of anatomical features and their functions. 3 hrs. lecture, 4 hrs. lab/wk. (NLS 6186)

**BIOL 146  
GENERAL/HEAD AND NECK ANATOMY (4CR)**

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

**BIOL 150  
BIOLOGY OF ORGANISMS (5CR)**

*Prerequisite: BIOL 120 or BIOL 122 and BIOL 123*  
Phyla of protista, plant and animal kingdoms will be presented with emphasis on life cycles, anatomy, physiology and ecology of the major groups. 4 hrs. lecture, 3 hrs. lab/wk. (NLS 6641)

**BIOL 205  
GENERAL GENETICS (3CR)**

Heredity and variation of plants and animals will be studied including classical and molecular genetics. 3 hrs./wk. (NLS 4248)

**BIOL 210  
PATHOPHYSIOLOGY (4CR)**

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

**BIOL 225  
HUMAN PHYSIOLOGY (4CR)**

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

**BIOL 230  
MICROBIOLOGY (3CR)**

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

**BIOL 231  
MICROBIOLOGY LABORATORY (2CR)**

*Corequisite: BIOL 230*  
Students will concentrate on growing and identifying microorganisms. They will perform experiments to

test the organisms' response to various environmental conditions. 4 hrs./wk. (NLS 6057)

**BIOL 235  
GENERAL NUTRITION (3CR)**

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

**BIOL 240  
GENERAL PHARMACOLOGY (3CR)**

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

**BIOL 298  
SPECIAL TOPICS IN BIOLOGY:  
SOUTHWESTERN FIELD COURSE (4CR)**

Students will travel through varied environments of the southwestern United States to observe and study the field biology of each area. Course includes pre-trip lectures in addition to the three-week field trip. (NLS 4914)

**BIOL 299  
YUCATAN FIELD COURSE:  
NATURAL HISTORY (3CR)**

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

## **BIOMEDICAL EQUIPMENT TECHNOLOGY**

**BMT 210  
BIOMEDICAL EQUIPMENT  
TECHNOLOGY I (4CR)**

*Prerequisites or corequisites: ANAT 144, ELEC 225, ELEC 230*

Topics include special electrical circuits used in biomedical equipment, use of electronics in the health care field, microshock and electrical safety testing. 3 hrs. lecture, 3 hrs. lab/wk. Fall. (EMT 7975)

**BMT 211  
BIOMEDICAL EQUIPMENT  
TECHNOLOGY II (3CR)**

*Prerequisite: BMT 210*  
Students will have access to actual biomedical equipment as they study specific repair and maintenance problems. 2 hrs. lecture, 3 hrs. lab/wk. Spring. (EMT 9824)



**BMT 271  
BIOMEDICAL INTERNSHIP (3CR)**

*Corequisite: BMT 211*

Each week students will work in an assigned hospital or in a related position. The institution's biomedical department in cooperation with JCCC's biomedical program coordinator will supervise and evaluate the students. 1 hr. lecture, 6 hrs. intern./wk. (EMT 4505)

## **BUSINESS ADMINISTRATION**

**BUS 120  
MANAGEMENT ATTITUDES  
AND MOTIVATION (3CR)**

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

**BUS 121  
INTRODUCTION TO BUSINESS (3CR)**

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

**BUS 123  
PERSONAL FINANCE (3CR)**

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

**BUS 124  
GENERAL INSURANCE (3CR)**

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

**BUS 125  
SAVINGS AND INVESTMENTS (3CR)**

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

**BUS 126  
TRANSPORTATION RATES I (3CR)**

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

**BUS 127  
TRANSPORTATION RATES II (3CR)**

The student will be introduced to Middlewest Freight Bureau Tariff 125 and MWB 226 (commodities). 3 hrs./wk. (BUS 4128)

**BUS 128  
TRANSPORTATION RATES III (3CR)**

The course will focus on the Middlewest Motor Freight Bureau Tariff 129 (rule for discounts and allowances), MWB 600 local distribution Rocky Mountain Motor 303 (class and commodity rates). 3 hrs./wk. (BUS 4129)

**BUS 130  
INTRODUCTION TO  
INTERNATIONAL BUSINESS (3CR)**

Accounting, finance, management and marketing in the international scene will be discussed. 3 hrs./wk. (BUS 4243)

**BUS 140  
PRINCIPLES OF SUPERVISION (3CR)**

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

**BUS 141  
PRINCIPLES OF MANAGEMENT (3CR)**

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

**BUS 150  
BUSINESS COMMUNICATIONS (3CR)**

*Prerequisite: ENGL 121*

Emphasis will be on writing clear and concise business letters, memos and reports. 3 hrs./wk. (BUS 1007)

**BUS 221  
PRINCIPLES OF INSURANCE (3CR)**

*Prerequisite: BUS 121 and BUS 123*

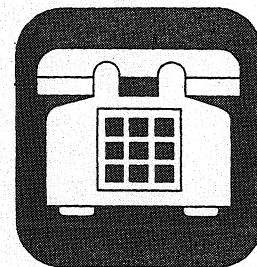
This course will explain insurance terminology and review the major categories such as life, health, property and liability. The course has been coordinated with the Insurance Institute of America. 3 hrs./wk. (BUS 1446)

**BUS 230  
MARKETING (3CR)**

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

**BUS 243  
PERSONNEL MANAGEMENT (3CR)**

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



*If you are enrolling in your first English or math course at JCCC, you are required to take the appropriate assessment test(s) in the Testing/Assessment Center.*

*THE WOMEN'S RESOURCE DIRECTORY, a list of area resources for women, is available through the Adults Unlimited program.*

JCCC offers "early morning classes" beginning at 7 a.m. See the Credit Bulletin.



**BUS 261  
BUSINESS LAW I (3CR)**

This is an introduction to the American legal system, business tort, crimes, contracts and uniform commercial code as applied to sales and negotiable instruments. A case study method will be used. 3 hrs./wk. (BUS 1121)

**BUS 263  
BUSINESS LAW II (3CR)**

*Prerequisite: BUS 261*

Topics include agency, partnership, property, insurance, corporations and secured transactions. A case study method will be used. 3 hrs./wk. (BUS 5134)

**BUS 271  
MANAGEMENT SEMINAR I (3CR)**

*Prerequisite: BUS 141*

In this course on advanced management, emphasis is on management decision making using both computerized and non-computerized management simulations. 3 hrs./wk. (BUS 3461)

**BUS 298  
BUSINESS IN JAPAN (3CR)**

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

## **BUSINESS DATA PROCESSING**

**DP 110  
INTRODUCTION TO COMPUTERS (2CR)**

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

**DP 124  
BUSINESS DATA PROCESSING (3CR)**

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

**DP 126  
PROGRAMMING LOGIC (2CR)**

The fundamental concepts of problem solving and developing programming logic will be introduced. The class will present the fundamental tools and techniques of programming. 2 hrs. lecture/wk.

**DP 128  
FUNDAMENTALS OF BASIC (3CR)**

This technical course concentrates on the BASIC programming language with emphasis on the micro-computer. This course is not a substitute for PROGRAMMING FUNDAMENTALS. 3 hrs./wk. (BDP 4049)

**DP 132  
BASIC FOR ENGINEERING  
TECHNOLOGY (3CR)**

*Prerequisite: MATH 133*

Students will become acquainted with computer capabilities. The class presents BASIC language using the computer to solve academic and non-academic problems in science and engineering. 3 hrs. lecture/wk.

**DP 134  
PROGRAMMING FUNDAMENTALS (4CR)**

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

**DP 137  
ADVANCED BASIC (4CR)**

*Prerequisite: DP 132 or DP 134*

Students will review introductory techniques and explore menus, multi-dimensional arrays, subroutine, advanced branching techniques, graphics and file accessing techniques including sequential, random and indexed access methods. Emphasis will be on systematic approach to solving problems using BASIC. 3 hrs. lecture, 2 hrs. lab/wk.

**DP 140  
EDITOR (1CR)**

*Prerequisite: DP 134*

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

**DP 145  
ASSEMBLER LANGUAGE FOR  
MICROCOMPUTERS (4CR)**

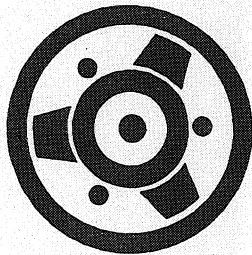
*Prerequisite: DP 134*

Students will study the use of assembler language for a microcomputer in solving typical problems. Emphasis will be on assembler statements, hardware architecture and system services and the use of micro-computers in assembling, linking and executing programs. 3 hrs. lecture/wk. Lab by arrangement.

**DP 148  
COBOL I (4CR)**

*Prerequisite: DP 134 and DP 140. DP 140 may also be taken as a corequisite*

Students will study the use of COBOL programming language. Emphasis will be on function and use of statements in the four divisions of ANSI COBOL. 3 hrs./wk. Lab by arrangement. (BDP 4700)



For word processing courses, see Information Word Processing.

**DP 150  
ASSEMBLER LANGUAGE I (4CR)**

*Prerequisite: DP 134 and DP 140. DP 140 may be taken as a corequisite. It is recommended this class be taken after COBOL I.*

Students will use Assembler language to solve typical problems. 3 hrs./wk. Lab by arrangement. (BDP 1698)

**DP 154  
PASCAL FOR MICROS (4CR)**

*Prerequisite: DP 134*

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

**DP 156  
RPG II BEGINNING (4CR)**

*Prerequisite: DP 134 and DP 140. DP 140 may be taken as a corequisite*

Students will look at the use of various approaches to RPG II problem solving. Topics include defining, coding, testing, debugging and documenting RPG II programs. Control levels and subroutines are covered. 3 hrs./wk. Lab by arrangement. (BDP 7683)

**DP 158  
FORTRAN (4CR)**

*Prerequisite: MATH 116 and DP 140. DP 140 may be taken as a corequisite*

The course focuses on the use of FORTRAN programming language to solve typical problems. Emphasis is on the vocabulary and grammar of ANSI FORTRAN. 3 hrs./wk. Lab by arrangement. (BDP 6703)

**DP 174  
TELEPROCESSING (3CR)**

*Prerequisite: DP 134*

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

**DP 210  
PASCAL (4CR)**

*Prerequisite: DP 148 or DP 150.*

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

**DP 215  
OS/VIS JOB CONTROL LANGUAGE (3CR)**

*Prerequisite: DP 148 or DP 150*

Students will study the use of OS/VIS JCL and typical applications. Emphasis will be on Rules of

Coding JCL, optimizing programs, and managing parameters and overriding statements. 3 hrs./wk. (BDP 6005)

**DP 224  
DATA FILE MANAGEMENT (3CR)**

*Prerequisite: Two of the following: DP 148, DP 150, DP 156, DP 158*

Students will gain work experience in the comprehensive coverage of data management techniques. Discussion will cover data items in relation to records, files and data bases; query languages; techniques and potential users of data base systems in industry and business. In addition, concepts will be integrated into the development of an inquiry data base. 3 hrs./wk. (BDP 1036)

**DP 242  
INTRODUCTION TO SYSTEM DESIGN  
AND ANALYSIS (3CR)**

*Prerequisites: One of the following: DP 148, DP 158, DP 150, DP 156*

Students will study basic philosophy and techniques in developing and using business information systems. Emphasis will be on the human element and the people involvement necessary in systems design and implementation. The course addresses the use of specific technical approaches available in relation to information processing. 3 hrs./wk. (BDP 4551)

**DP 248  
COBOL II (4CR)**

*Prerequisite: DP 148*

In this advanced COBOL programming class, students will use ANSI COBOL to solve problems with data on a direct access device. They will work on methods for building, maintaining and using files in a sequential, random and indexed manner. They also will study sort and report Writer features. 3 hrs./wk. Lab by arrangement. (BDP 1702)

**DP 250  
ASSEMBLER LANGUAGE II (4CR)**

*Prerequisite: DP 150*

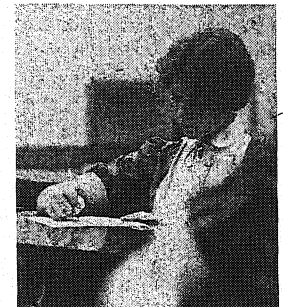
Advanced features of Assembler language for IBM 370 will be covered. Topics include Macros, subprograms, table handling, file access and complete set of ALC instructions. 3 hrs./wk. Lab by arrangement. (BDP 1684)

**DP 253  
CUSTOMER INFORMATION CONTROL SYSTEM  
COMMAND LEVEL COBOL (4CR)**

*Prerequisite: DP 248*

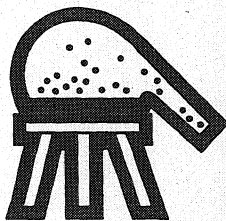
This is an introduction of command level CICS using COBOL languages. The class will cover the basic CICS commands and their uses as well as CICS management modules and their functions including program control, terminal control, basic mapping support, file control, temporary storage and transient data. Debugging on the transaction level will be discussed. 3 hrs. lecture, 2 hrs. lab/wk.

*A new expanded data processing facility is featured in the new OCB building.*

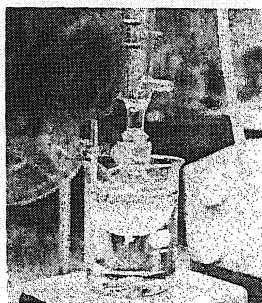


*The JCCC Center for Local History promotes interest in history and cooperation among local historical societies and agencies.*

JCCC reserves the right to cancel, combine or divide classes; to change the time, date or place of meeting; to change instructor assignments, and to make other revisions without incurring obligation.



All the courses you need to graduate in the Data Processing Program are offered at night as well as during the day.



**DP 256  
RPG II ADVANCED (4CR)**

*Prerequisite: BDP 156*

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

**DP 258  
OPERATING SYSTEMS (3CR)**

*Prerequisite: DP 150 or DP 148*

The basic concepts and principles of a digital computer operating system are explained. Also explored through a study of a typical digital computer operating system are the relationships between hardware and software. 3 hrs./wk. (BDP 6451)

**DP 260  
DATA BASE MANAGEMENT (4CR)**

*Prerequisites: Two of the following: DP 148, DP 150, DP 248, DP 248, DP 250*

*Corequisite: DP 258*

Students will focus on the academic and commercial applications of three data base models. Discussion will cover underlying theories and commercially-available examples of each model and its query/data manipulation language. 3 hrs. lecture, 2 hrs. lab/wk.

**DP 262  
APPLICATION PROGRAMMING:  
APPLICATIONS (2-3CR)**

*Prerequisite: Permission of division director;  
Corequisite: One of the following: DP 148, DP 150, DP 156, DP or DP 158*

This class consists of computer operations or directly related work experience. A minimum of 15 hours of supervised on-the-job training a week or recognition and formalization of experience for those already employed is required. Hours by arrangement. Fall. (BDP 3868)

**DP 264  
APPLICATION PROGRAMMING: DATA  
PROCESSING TOPICS (2-3CR)**

*Prerequisite: Permission of division director;  
Corequisite: One of the following: DP 148, DP 150, DP 156 or DP 158*

This class consists of programming or directly related work experience. A minimum of 15 hours supervised on-the-job training a week or recognition and formalization of experience for those already employed is required. Hours by arrangement. Spring. (BDP 3869)

## CHEMISTRY

**CHEM 122  
PRINCIPLES OF CHEMISTRY (5CR)**

This is an introduction to the fundamentals of chemistry. It covers the general concepts of inorganic chemistry with some organic chemistry and biochemistry. 4 hrs. lecture, 3 hrs. lab/wk. (NPS 6634)

**CHEM 124  
GENERAL CHEMISTRY I LECTURE (4CR)**

*Corequisite: MATH 160 and CHEM 125*

Students will relate atomic structure to chemical systems, calculate the amount of material used in chemical reactions, use the periodic table as an aid to understanding chemical systems and interpret chemical reactions. 4 hrs./wk. (NPS 4515)

**CHEM 125  
GENERAL CHEMISTRY I LAB (1CR)**

*Corequisite: CHEM 124*

Students will concentrate on bonding concepts, solutions, gas laws and stoichiometry in laboratory experiments. 3 hrs./wk. (NPS 4516)

**CHEM 127  
INTRODUCTION TO  
QUANTITATIVE ANALYSIS (5CR)**

*Prerequisite: CHEM 131 and CHEM 132*

This is an introduction to the concepts of acid-base, chromatography, coulometry, equilibrium, oxidation-reduction and spectro-photometry as they apply to quantitative chemical analysis. The lab will introduce modern quantitative experimental techniques. 3 hrs. lecture, 6 hrs. lab/wk. (NPS 5537)

**CHEM 131  
GENERAL CHEMISTRY II LECTURE (4CR)**

*Prerequisites: CHEM 124 and CHEM 125  
Corequisite: CHEM 132*

In this continuation of CHEM 124, topics include kinetics, acid-base chemistry, equilibrium, chemical thermodynamics and electro-chemistry. 4 hrs./wk. (NPS 4455)

**CHEM 132  
GENERAL CHEMISTRY II LAB (1CR)**

*Prerequisite: CHEM 125  
Corequisite: CHEM 131*

The laboratory consists of experiments supportive to GENERAL CHEMISTRY II LECTURE with emphasis on quantitative techniques. 3 hrs./wk. (NPS 4456)

**CHEM 140  
PRINCIPLES OF ORGANIC CHEMISTRY (5CR)**

*Prerequisite: CHEM 122 or CHEM 131*

Nomenclature, theory and applications of basic organic chemistry will be covered. Functional group reactions will lead into a study of carbohydrates, proteins, lipids and other biochemical topics. 4 hrs. lecture, 3 hrs. lab/wk. (NPS 2650)

**CHEM 220  
ORGANIC CHEMISTRY I (5CR)**

*Prerequisites: CHEM 131 and CHEM 132*

Electronic theories and reaction mechanisms will be the focus of this course. Students will work on techniques in the lab and will prepare representative compounds. 9 hrs./wk. Fall. (NPS 2637)



**CHEM 221  
ORGANIC CHEMISTRY II (5CR)**

*Prerequisite: CHEM 220*

In this continuation of ORGANIC CHEMISTRY I, organic qualitative analysis will be introduced. 9 hrs./wk. Spring. (NPS 3657)

## **COMMERCIAL ART**

**CA 130  
BASIC REPRESENTATION I (3CR)**

In this introduction to representational drawing, emphasis is on techniques of visual analysis and the accurate rendering of structure in terms of both line and value. 6 hrs./wk. (HCA 6862)

**CA 131  
BASIC REPRESENTATION II (3CR)**

*Prerequisite: CA 130*

In this continuation of BASIC REPRESENTATION I, students will explore the tools, materials, techniques and processes used by the professional illustrator. 6 hrs./wk. (HCA 5863)

**CA 133  
LETTERING (3CR)**

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

**CA 221  
LAYOUT (3CR)**

*Prerequisite: ART 124 and CA 133*

In this introduction to advertising layout, information and techniques necessary for the effective composition of verbal and visual messages designed for publication will be the focus. 6 hrs./wk. (HCA 1861)

**CA 224  
VISUAL COMMUNICATIONS I (4CR)**

*Prerequisite: Approval of the division director*

This is an exploration of the scope and potential of graphic design as a vehicle for communication. Major areas of work include identity systems and corporate image-building through photographs, hand graphics and typography. 8 hrs./wk. (HCA 1689)

**CA 225  
VISUAL COMMUNICATIONS II (4CR)**

*Prerequisite: CA 224*

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

**CA 233  
VISUAL TECHNOLOGY I (4CR)**

*Prerequisite: CA 221*

Production methods, techniques and skills necessary for the preparation of camera-ready art required for graphic reproduction will be introduced. 8 hrs./wk. (HCA 4679)

**CA 234  
VISUAL TECHNOLOGY II (4CR)**

*Prerequisite: CA 233*

In this continuation of VISUAL TECHNOLOGY I, students will apply production skills to problems of professional scope and complexity. 8 hrs./wk. (HCA 6688)

**CA 241  
AIRBRUSH TECHNIQUES (3CR)**

*Prerequisite: CA 131*

This is an introduction to airbrush techniques and materials as used in both fine and commercial art. 6 hrs./wk. (HCA 8853)

**CA 250  
PREPARATION OF PORTFOLIO (2CR)**

*Prerequisite: Approval of division director*

The selection, sequencing and presentation of student work for inclusion in a portfolio will be covered along with resume writing and design. 4 hrs./wk. (HCA 7690)

**CA 271  
COMMERCIAL ART FIELD STUDY (3CR)**

*Prerequisite: Approval of division director*

Students will work about 15 hours a week in an approved professional studio under instructional staff supervision. 2 hrs.class/wk. (HCA 5691)

## **COMPUTERS: PERSONAL COMPUTER APPLICATIONS**

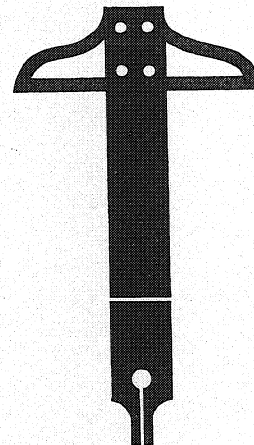
**CPCA 120  
INTRODUCTION TO MICROCOMPUTERS:  
BASIC PROGRAMMING (3CR)**

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

**CPCA 130  
MICROCOMPUTING: BASIC PROGRAMMING  
AND DATA FILES (4CR)**

This beginning course in BASIC concentrates on programming fundamentals and the use of data files. Programming commands up through data files and graphics are stressed along with the use of these skills in writing programs for small businesses, education, data management, research projects or the home. 3 hrs. lecture, 2 hrs. lab/wk. (NS 3082)

Original works of art accent the campus environment. JCCC's Board annually allocates funds for the purchase of art for display.



The commercial art program is considered among the best in the area.



All chemistry courses require lab work.

**CPCA 200  
INTRODUCTION TO MICROCOMPUTERS:  
ADVANCED PROGRAMMING (3CR)**

*Prerequisite: CPCA 120 or CPCA 130 or equivalent*

Data files and menu programming will be emphasized in the first part of the course. Then several project programs will be assigned on an individual basis. 2 hrs. class, 2 hrs. lab/wk. (CLC 1367)

*For related courses, see  
Administration of  
Justice/Law  
Enforcement.*

## **CORRECTIONAL SERVICES**

**KADJ 185  
PRINCIPLES OF CORRECTIONS (3CR)**

*Prerequisite: Approval of division director*

Topics include the development and philosophy of corrections; ancient codes; medieval justice; development of parole, probation and community treatment. 3 hrs./wk. (SLE 7581)

**KADJ 186  
CORRECTIONAL PSYCHOLOGY (3CR)**

*Prerequisite: Approval of division director*

In this class, students will study psychological theories of crime and delinquency, diagnostic approaches used in correctional settings, psychopathology, classification procedures and individual and group counseling. 3 hrs./wk. (SLE 7582)

*You are welcome to make  
an appointment to use  
SIGI, a computerized  
career program, available  
in the Career Planning  
and Placement Center.*

**KADJ 188  
THEORY OF CHILD CARE WORK IN  
RESIDENTIAL TREATMENT (3CR)**

*Prerequisite: Approval of division director*

The role of the child care worker will be explored in this course along with basic theory of treatment, organizational structure and problem-solving skills. 3 hrs./wk. (SLE 7583)

**KADJ 191  
CORRECTIONS IN THE COMMUNITY (3CR)**

*Prerequisite: KADJ 185 and approval of division director*

This course will cover community correctional programs, diversion, half-way programs, pre-release centers, group homes, probation and parole. The community support needed for these programs also will be discussed. 3 hrs./wk. (SLE 7580)

**KADJ 192  
CORRECTIONAL ADMINISTRATION (3CR)**

*Prerequisite: KADJ 185 and approval of division director*

This survey of management patterns in correctional agencies covers management by objectives and accountability; public relations; training; budgeting; record keeping; and custody and treatment classifications. 3 hrs./wk. (SLE 7587)



**KADJ 193  
METHODS OF INTERACTING WITH  
EMOTIONALLY-SENSITIVE CHILDREN (3CR)**

*Prerequisite: KADJ 188*

Students will discuss the goals and needs of children, especially emotionally-sensitive children. Topics include selecting, implementing and evaluating procedures for dealing with these children. 3 hrs./wk. (SLE 7584)

**KADJ 194  
INTERNSHIP IN CORRECTIONS I (3CR)**

*Prerequisite: KADJ 185 and approval of division director*

This internship provides on-the-job training in corrections. 15 hrs./wk. (SLE 7585)

**KADJ 261  
INTERNSHIP IN CORRECTIONS II (3CR)**

*Prerequisite: KADJ 185, KADJ 194 and approval of division director*

This internship provides on-the-job training in corrections. 15 hrs./wk. (SLE 7586)

## **DENTAL ASSISTING**

**KDA 151  
FUNDAMENTALS OF DENTISTRY I (5CR)**

*Prerequisite: Admission to Dental Assisting Program*

This class introduces the student to the functions of the dental health team and the scope of service of the dental assistant. Other areas covered include histology, embryology, dental materials and the manipulation of dental materials in a laboratory procedure. 7 hrs./wk. (NDA 2041)

**KDA 152  
FUNDAMENTALS OF DENTISTRY II (4CR)**

*Prerequisite: KDA 151*

In this introduction to patient psychology, emphasis will be on maturation, emotion and personality, fundamentals of dental radiography, techniques of dental radiographs and the use of dental materials. 6 hrs./wk. (NDA 1044)

**KDA 153  
FUNDAMENTALS OF DENTISTRY III (4CR)**

*Prerequisites: KDA 152 and KDA 160*

The student will record and maintain accurate dental records, identify and describe dental diseases and study concepts and perform techniques related to chairside assisting. 6 hrs./wk. (NDA 2855)

**KDA 154  
FUNDAMENTALS OF DENTISTRY IV (3CR)**

*Prerequisite: KDA 153*

The student will identify drugs associated with dental treatment, demonstrate usage, care and dosage of medicine. Emphasis will be on the Dental Code of Ethics and the application of business administration principles to the dental office. 3 hrs./wk. (NDA 5048)

**KDA 160  
PRECLINICAL PRACTICE (4CR)**

*Prerequisite: KDA 152*

Students will participate in the orientation and identification of the various operative procedures including chairside assisting, instrumentation and maintenance of equipment. The course includes a special study of the expanded functions governed by the Missouri Dental Practice Act. 5 hrs./wk. (NDA 1052)

**KDA 161  
CLINICAL PRACTICE I (3CR)**

*Prerequisite: KDA 152 and KDA 160*

Students will have the opportunity to adapt and apply techniques and knowledge covered in the classroom to the clinical environment. All operative and specialty procedures will be evaluated. 10 hrs./wk. By arrangement (NDA 1047)

**KDA 162  
CLINICAL PRACTICE II (5CR)**

*Prerequisite: KDA 161*

The student will receive advanced training in dental operative and specialty procedures including performance evaluations. 15 hrs./wk. By arrangement (NDA 6050)

## **DENTAL HYGIENE**

**DHYG 121  
CLINICAL DENTAL HYGIENE I (6CR)**

*Prerequisite: Admission to Dental Hygiene Program  
Corequisites: BIOL 146, CHEM 122, DHYG 125*

This course includes an introduction to the dental hygiene profession, dental hygiene techniques, the principles of instrumentation, patient evaluation, patient education and primary preventive treatment, auxiliary procedures and aseptic techniques. 2 hrs. lecture, 11 hrs. lab/wk. (NDH 7252)

**DHYG 125  
DEVELOPMENTAL DENTISTRY (3CR)**

*Corequisites: BIOL 146, CHEM 122, DHYG 121*

This course includes a study of embryology; oral histology; developmental disturbances of the face, oral cavity and related structures; and the study of dental morphology and occlusion. 3 hrs. lecture, 1 hr. lab/wk. (NDH 7253)

**DHYG 140  
CLINICAL DENTAL HYGIENE II (5CR)**

*Prerequisites: DHYG 121, DHYG 125, BIOL 146, CHEM 122 and no grade below a "C"  
Corequisites: DHYG 142, BIOL 235, BIOL 120, DHYG 146, DHYG 148*

Focus will be on the clinical application of dental hygiene techniques, instrumentation skills, oral physiotherapy, patient motivation and education techniques, dietary analysis and nutritional counseling. Procedures for medical and dental

emergencies in the dental office also will be covered. 2 hrs. lecture, 8 hrs. clinic/wk. (NDH 7254)

**DHYG 142  
DENTAL RADIOLOGY (2CR)**

*Prerequisites: DHYG 121, DHYG 125, BIOL 146, CHEM 122 and no grade below a "C"  
Corequisites: DHYG 140, BIOL 235, BIOL 120, DHYG 146, DHYG 148*

This class concentrates on the theory and clinical practice of exposing, processing, mounting and evaluating oral radiographs with emphasis on radiation protection for patient and operator. 1 hr. lecture, 3 hrs. lab/wk. (NDH 6266)

**DHYG 146  
PERIODONTICS (1CR)**

*Prerequisites: DHYG 121, DHYG 125, BIOL 146, CHEM 122 and no grade below a "C"  
Corequisites: DHYG 142, BIOL 235, BIOL 120, DHYG 140, DHYG 148*

This is a study of the inflammation process, its relationships to periodontal disease, recognition of the etiology, signs and symptoms of periodontal disease. 1 hr. lecture/wk. (NDH 7255)

**DHYG 148  
DENTAL HEALTH EDUCATION (1CR)**

*Prerequisites: DHYG 121, DHYG 125, BIOL 146, CHEM 122 and no grade below a "C"  
Corequisites: BIOL 225, BIOL 235, DHYG 146, DHYG 140, DHYG 142*

Students will study health education methods for individuals and groups, with special emphasis on psychological, social and economic factors. 2 hrs. lab/wk. (NDH 7256)

**DHYG 221  
CLINICAL DENTAL HYGIENE III (7CR)**

*Prerequisites: DHYG 148, DHYG 121, DHYG 140, BIOL 146, DHYG 142, DHYG 125, DHYG 146, BIOL 225, CHEM 122 and no grade below a "C"  
Corequisites: DHYG 225, DHYG 230, DHYG 240, DHYG 235*

Students will continue to work on techniques including preparation and application of dental hygiene treatment plans. 2 hrs. lecture, 16 hrs. clinic/wk. (NDH 7257)

**DHYG 225  
PATHOLOGY AND PERIODONTOLOGY (3CR)**

*Prerequisites: DHYG 121, DHYG 140, BIOL 146, DHYG 142, DHYG 125, DHYG 148, DHYG 146, BIOL 225, BIOL 235, and no grade below a "C"  
Corequisites: DHYG 221, DHYG 230, DHYG 240, DHYG 235*

Included in this course is a description of periodontal treatment and therapy with emphasis on root planing and soft tissue curettage. Also covered will be basic pathological processes and identification of common oral conditions, their etiology and treatment. 3 hrs. lecture/wk. (NDH 7258)

*Credit classes are offered at many locations off campus. See the Credit Bulletin for details.*



*Students in the Dental Hygiene have the opportunity to apply their skills in the Dental Hygiene Clinic located in the Science building.*

Bulletins are available in the Admissions Office.



Weekend College classes – as listed in the Credit Bulletin – meet on Friday evenings and Saturdays.

Drafting technology courses are developed with the assistance of advisors employed as supervisors, designers or drafters.

### **DHYG 230 DENTAL THERAPEUTICS (3CR)**

*Prerequisites:* DHYG 148, DHYG 121, DHYG 140, BIOL 146, DHYG 142, DHYG 125, DHYG 146, BIOL 225, BIOL 235, CHEM 122 and no grade below a "C"

*Corequisites:* DHYG 225, DHYG 221, DHYG 230, DHYG 235.

This course will introduce the basic principles of drug actions emphasizing dental-related therapeutics and drugs associated with common system disorders; information on the selection of professional products; and principles necessary in administering local anesthesia. 3 hrs. lecture wk., 1 hr. lab/wk. for 8 wks. (NDH 7259)

### **DHYG 235 DENTAL MATERIALS (2CR)**

*Prerequisite:* DHYG 121, DHYG 140, BIOL 146, DHYG 142, DHYG 125, DHYG 148, DHYG 146, BIOL 225, BIOL 235, CHEM 122 and no grade below a "C"

*Corequisites:* DHYG 221, DHYG 225, DHYG 230, DHYG 240

Students will study restorative, prosthetic and preventive materials and their use. 1 hr. lecture, 3 hrs. lab/wk. (NDH 5250)

### **DHYG 240 COMMUNITY DENTAL HEALTH (2CR)**

*Prerequisites:* DHYG 121, DHYG 140, BIOL 146, DHYG 142, DHYG 125, DHYG 148, DHYG 146, BIOL 225, BIOL 235, CHEM 122 and no grade below a "C"

*Corequisites:* DHYG 221, DHYG 225, DHYG 230, DHYG 235.

Topics include public health agencies; statistical procedures in critiquing scientific literature; identifying dental needs of different groups; and planning dental health education programs in schools. Field experience included. 1 hr. lecture, 3 hrs. lab/wk. (NDH 7260)

### **DHYG 250 CLINICAL DENTAL HYGIENE IV (7CR)**

*Prerequisites:* DHYG 121, DHYG 140, DHYG 221, BIOL 146, DHYG 125, DHYG 148, DHYG 240, DHYG 146, DHYG 226, DHYG 230, DHYG 142, DHYG 235, BIOL 225, BIOL 235, CHEM 122 and no grade below a "C"

This course offers continued development of proficiency in clinical techniques and current procedural practices of the dental hygienist with emphasis on self evaluation. Topics include ethics, office management and current dental hygiene issues. 2 hrs. lecture 16 hrs. clinic/wk. (NDH 7261)

## **DRAFTING TECHNOLOGY**

### **DRAF 121 TECHNICAL ILLUSTRATION (3CR)**

Students will work on techniques used by technical illustrators. Topics include conversion of engineering

drawings to three-dimensional isometric, dimetric, trimetric and perspective views. 6 hrs. class-lab/wk. Biannually. Fall. (EDT 2297)

### **DRAF 123 INTERPRETING MACHINE DRAWINGS (2CR)**

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

### **DRAF 125 INTERPRETATION OF WELDING DRAWINGS (2CR)**

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

### **DRAF 127 BUILDING CONSTRUCTION ESTIMATING (3CR)**

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

### **DRAF 129 INTERPRETING ARCHITECTURAL DRAWINGS (2CR)**

This beginning course explains the fundamentals of interpreting architectural type drawings (blueprints). 2 hrs./wk. Fall. (EDT 4011)

### **DRAF 132 TECHNICAL DRAFTING I (5CR)**

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

### **DRAF 133 TECHNICAL DRAFTING II (5CR)**

*Prerequisite:* DRAF 132 or permission of program coordinator

Emphasis is on developments, fasteners, geometric form and true position tolerancing. Numerical control (NC), computer-aided drafting (CAD) and computer-aided manufacturing are included. 10 hrs. class-lab/wk. Spring. (EDT 2811)

### **DRAF 135 REPROGRAPHICS I (2CR)**

*Corequisite:* DRAF 132

Topics include reproduction processes and techniques used by industry; diazo-white printing; sepia intermediates; wash-off film; photodrafting; and metal plate making. 4 hrs. class-lab/wk. Fall. (EDT 1813)



**DRAF 136  
REPROGRAPHICS II (2CR)**

*Prerequisite: DRAF 135*

Students will work on advanced applications of photo reproduction used for documentation; halftones, screening and product photography; use of 35mm, view industrial and process cameras. 4 hrs. class-lab/wk. Biannually. Spring. (EDT 4010).

**DRAF 140  
PICTORIAL DRAFTING (2CR)**

*Prerequisite: DRAF 132 or permission of program coordinator*

Students will study three-dimensional pictorial views and axonometric, obliques and perspectives. Time-saving devices such as templates, proportional dividers, shading film and photo drafting also will be examined. 4 hrs. class-lab/wk. Spring. (EDT 7812)

**DRAF 145  
TOOL DESIGN (3CR)**

*Prerequisite: DRAF 133*

Focus will be on problems in the design, construction and operation of dies, jigs and fixtures. 6 hrs. lab/wk. (EDT 7407)

**DRAF 150  
ELECTRICAL DRAFTING (3CR)**

*Prerequisites: DRAF 132 or DRAF 261 or permission of program coordinator*

Drafting techniques will be applied to lighting, motor controls, power distribution and generation. Emphasis will be on use of tables, catalogs and computer applications as aids, as well as decision making required on electrical drawings. 6 hrs. class-lab/wk. Spring. (EDT 5924)

**DRAF 160  
PROCESS PIPING (3CR)**

*Prerequisites: DRAF 132 and DRAF 140 or permission of program coordinator*

Students will become familiar with symbols, terminology, specifications, piping fittings and valving relating to process pipe drawings. 6 hrs. class-lab/wk. Fall. (EDT 4014)

**DRAF 175  
ELECTRONICS DRAFTING (3CR)**

*Prerequisite: DRAF 132*

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

**DRAF 180  
ARCHITECTURAL/STRUCTURAL  
DRAFTING (4CR)**

*Prerequisite: DRAF 132 or DRAF 261 or permission of program coordinator*

In this study of commercial architectural structures, students will become familiar with residential construction, structural components, terminology, fabrication and erection drawings. 8 hrs. class-lab/wk. Fall. (EDT 4072)

**DRAF 225  
CARTOGRAPHY AND LAND SURVEYING (3CR)**

*Prerequisites: MATH 172 or MATH 133 and DRAF 132*

This is an introduction to map drafting and methods of land surveying used by engineering firms. Topics include profiles, map plotting and layout from notes, equipment, record keeping, field problems and computer applications. 6 hrs. class/wk. Spring. (EDT 4015)

**DRAF 230  
INTRODUCTION TO COMPUTER-AIDED  
DRAFTING 2-D (3CR)**

*Prerequisite: One semester of mechanical drafting or permission of program coordinator*

Students will focus on computer-aided drafting equipment including graphics terminal digitizer, plotter, microcomputer and drafting tools. 2 hrs. class, 3 hrs. lab/wk. (EDT 1846)

**DRAF 231  
COMPUTER-AIDED DRAFTING - 3D (3CR)**

*Prerequisite: DRAF 230*

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

**DRAF 232  
COMPUTER-AIDED DRAFTING  
APPLICATIONS (3CR)**

*Prerequisite: DRAF 231*

**DRAF 261  
GRAPHIC COMMUNICATIONS I (2-7CR)**

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

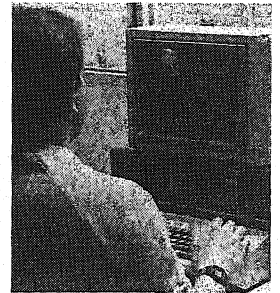
**DRAF 262  
GRAPHIC COMMUNICATIONS II (1-7 CR)**

*Prerequisite: DRAF 261*

**DRAF 263  
GRAPHIC COMMUNICATIONS III (1-7 CR)**

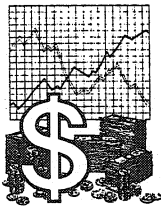
*Prerequisite: DRAF 262*

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



Information about  
scholarships, grants, loans  
and jobs is available in the  
Financial Aid Office, first  
floor, GEB.

Under the new course numbering system, the old course number is listed in parentheses at the end of the course description.



**DRAF 271  
DRAFTING COOPERATIVE  
EDUCATION I (2-9CR)**

This class may be repeated for a total of nine credit hours.  
*Prerequisites:* 14 credit hours in drafting and approval of division director

Students will have the opportunity to gain on-the-job work experience under the supervision of professionals in the industry. Students and area employers and staff will work together to create meaningful job experiences. 1 hr. lecture, 6-27 hrs. on-the-job training/wk. (EDT 6460)

**DRAF 272  
DRAFTING COOPERATIVE  
EDUCATION II (2-9CR)**

*Prerequisite:* DRAF 271 and approval of division director

**DRAF 273  
DRAFTING COOPERATIVE  
EDUCATION III (2-9 CR)**

*Prerequisite:* DRAF 272 and approval of division director

**ECONOMICS**

**ECON 130  
BASIC ECONOMICS (3CR)**

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

**ECON 230  
ECONOMICS I (3CR)**

This class will cover supply and demand; national income determinations; money and banking; monetary and fiscal policy. 3 hrs./wk. (BUS 2253)

**ECON 231  
ECONOMICS II (3CR)**

*Prerequisite:* ECON 230

Emphasis in this continuation of ECONOMICS I is on supply and demand, theory of the firm and market structures. 3 hrs./wk. (BUS 3093)

**EDUCATION**

**EDUC 121  
INTRODUCTION TO TEACHING (2CR)**

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

**EDUC 133  
INTRODUCTION TO ART THERAPY (3CR)**

*Prerequisite:* PSYC 130

Students will examine the theories and principles of art therapy through its historical foundation in psychology and education and the literature of leading art therapists. Field trips to local art therapy facilities included. 3 hrs. lecture/wk. (SS 4283)

**EDUC 220  
SURVEY OF THE EXCEPTIONAL CHILD (3CR)**

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

**EDUC 222  
BASIC STRATEGIES FOR SPECIAL  
EDUCATION PARAPROFESSIONALS I (1CR)**

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

**EDUC 223  
BASIC STRATEGIES FOR SPECIAL  
EDUCATION PARAPROFESSIONALS II (1CR)**

*Prerequisite:* EDUC 222

Emphasis is on defining the responsibilities and role of the paraprofessional in special education programs. 1 6-hr. session. Outside readings and a 12-hour practicum are required.

**ELECTRONICS**

**ELEC 120  
INTRODUCTION TO ELECTRONICS (3CR)**

Topics include laboratory instruments, circuit components, basic measurement techniques, and basic circuits. 1 hr. class, 6 hrs. lab/wk. (EET 5290)

**ELEC 122  
CIRCUIT ANALYSIS I (3CR)**

*Prerequisites:* ELEC 120 and MATH 143 or concurrent enrollment

Topics include 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. 3 hrs./wk. (EET 3409)

**ELEC 125  
DIGITAL ELECTRONICS I (4CR)**

*Prerequisite:* ELEC 120

This is the first in a three-semester series in digital electronics. It includes study of binary numbers and codes, binary arithmetic, logic circuits, arithmetic circuits, flip-flops and counters. 3 hrs. class, 2 hrs. lab/wk. (EET 9086)

The "open lab" concept allows you to use the electronics lab anytime during the week.



**ELEC 130  
ELECTRONIC PRINCIPLES I (3CR)**

*Prerequisite: ELEC 122 and MATH 144*

This is the first in a three-course series in analog electronics. It includes a study of semiconductor theory, diodes, diode circuits, transistors and transistor biasing circuits. 2 hrs. class, 3 hrs. lab/wk. (EET 5886)

**ELEC 140  
CIRCUIT ANALYSIS II (3CR)**

*Prerequisites: MATH 144 or concurrent enrollment and ELEC 122*

This class focuses on fundamental concepts of AC circuit analysis and transient circuit analysis as applied to circuits containing resistors, capacitors and inductors. 3 hrs./wk. (EET 6029)

**ELEC 225  
DIGITAL ELECTRONICS II (4CR)**

*Prerequisite: ELEC 125*

This is the second in a three-course series in digital electronics. It includes a study of registers, counters, memories, computer architecture and computer instructions. 3 hrs. class, 2 hrs. lab/wk. (EET 6036)

**ELEC 230  
ELECTRONIC PRINCIPLES II (3CR)**

*Prerequisite: ELEC 140 and ELEC 130*

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

**ELEC 235  
ELECTRONIC PRINCIPLES III (3CR)**

*Prerequisite: ELEC 230*

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

**ELEC 240  
ELECTRONIC COMMUNICATION SYSTEMS (3CR)**

*Prerequisite: ELEC 230*

This class concentrates on electronic communication systems including AM and FM radio receivers and transmitters, antennas, broadcast stations, television and microwave. 3 hrs./wk. Spring. (EET 2468)

**ELEC 245  
MICROPROCESSORS (3CR)**

*Prerequisite: ELEC 230*

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

## **EMERGENCY MEDICAL TECHNOLOGY**

**EMT 121  
CPR I - BASIC RESCUER (1CR)**

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

**EMT 125  
CPR II - BASIC CPR INSTRUCTOR (1CR)**

*Prerequisite: Basic Rescuer certification by the American Heart Association and permission of division director or instructor.*

Class includes review of CPR I techniques; methodology of teaching; designing and implementing CPR courses; demonstration of mastery performances; mini-lectures. Upon successful completion of the class, students will be certified by the American Heart Association as basic rescuers. 2 hrs./wk. for 8 wks. (NET 2141)

**EMT 130  
EMERGENCY MEDICAL TECHNICIAN (6CR)**

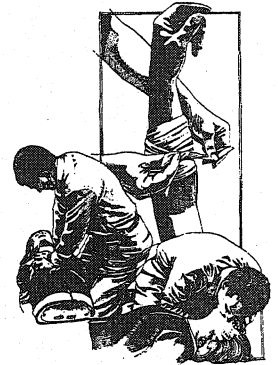
Classroom instruction covers anatomy, physiology, patient assessment and treatment of medical and trauma-related conditions. CPR also will be taught. Students will spend 10 hours observing in the hospital. Upon successfully completing this course, they will meet the prerequisite for taking the EMT State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



**EMT 140  
BASIC CARDIOLOGY AND  
EKG RECOGNITION (2CR)**

*Prerequisite: Permission of division director or instructor*

Topics include basic anatomy, physiology, electrophysiology of the cardiac system, recognition of EKG tracings and an overview of coronary artery disease. 2 hrs./wk. Class limited to 30. (NET 2142)



*JCCC offers a certificate program in Emergency Medical Technology which consists of about 120 clock hours.*

*The new degree requirements, effective fall 1984 are explained on page 20*

## EMERGENCY MEDICAL INTENSIVE CARE TRAINING

### EMIC 220 EMICT I (10CR)

*Prerequisite: Admission to the EMICT program*

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

### EMIC 225 EMICT II (10CR)

*Prerequisite: EMIC 220 with a minimum grade of "C"*

This fundamental course covers diagnosis, etiology and field treatment of victims of respiratory emergencies and of hypertensive, vascular, diabetic, OB, endocrine or environmental emergencies. Also covered will be the treatment of victims experiencing overdoses or poisoning; or chest, neurological and abdominal trauma, fracture or shock. Three 8 hr. days of class/wk., Two 24 hr. shifts field experience/mo. for 8 wks. (NET 4205)

### EMIC 230 EMICT III CLINICALS (12CR)

*Prerequisite: EMIC 225 with the minimum grade of "C"*

The student will practice diagnostic and treatment skills under supervision in an emergency department, critical care unit, surgery/recovery room, labor/delivery room and a pediatrics unit. Four 8 hr. day or evening shifts/wk. in hospital, two 24 hr. shifts field experience/mo. Some classroom meetings. (NET 4206)

### EMIC 271 EMICT IV FIELD INTERNSHIP (10CR)

*Prerequisite: EMIC 230 with a minimum grade of "C"*

The student will act as an EMICT under supervision with an existing, advanced life-support ambulance service. The student also will present case histories, analyze systematic medical care and evaluate medical care using pre-hospital protocols. First month same as summer. Then 24 hr. shifts internship with Type I unit. Some classroom meetings. (NET 4207)

## ENERGY TECHNOLOGY

### ENER 121 BASIC PRINCIPLES OF HVAC (4CR)

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

### ENER 123 ELECTROMECHANICAL SYSTEMS (3CR)

*Prerequisite: ENER 121 or permission of instructor*

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

### ENER 124 RESIDENTIAL HVAC ESTIMATING (2CR)

*Prerequisites: ENER 121, ENER 123*

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

### ENER 125 ENERGY ALTERNATIVES (3CR)

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

### ENER 126 RESIDENTIAL HVAC SYSTEMS (3CR)

*Prerequisites: ENER 121 and ENER 123*

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

### ENER 128 INSTRUMENTATION AND CONTROL DEVICES (3CR)

*Prerequisites: ENER 121 and ENER 123*

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

### ENER 129 DOMESTIC SOLAR SYSTEMS (3CR)

Topics include design of solar systems for production of heat and electricity; optimum systems for different types of residential structures; active solar components and methods; hybrid systems which combine conventional and solar heating systems. In the labs, students will build actual working systems and models and test for efficiency and energy output. 2 hrs. lecture, 3 hrs. lab/wk. (TEN 6568)

You may be eligible for financial aid. Check with the Financial Aid Office as soon as possible.



All EMIC courses require some weekend hours.



**ENER 130  
PASSIVE SOLAR FUNDAMENTALS (3CR)**

In this study of solar technologies, students will deal with architectural treatments of existing structures including greenhouses; solariums; sun spaces; trombe walls; direct and indirect solar gain; and other solar options. The calculation of expected heat input of various passive solar additions also will be covered. Students will be required to design a home using passive solar applications. 3 hrs./wk. (TEN 6559)

**ENER 221  
COMMERCIAL SYSTEMS -  
AIR CONDITIONING (4CR)**

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

**ENER 222  
ADVANCED CONTROL SYSTEMS (3CR)**

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

**ENER 223  
COMMERCIAL SYSTEMS: HEATING (4CR)**

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

**ENER 224  
DIAGNOSIS AND SERVICE PROCEDURES (3CR)**

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

**ENER 226  
ENERGY MANAGEMENT (3CR)**

*Prerequisites: ENER 222 and ENER 223 or permission of program coordinator*

Components and systems designed to monitor and curb usage of building utilities will be examined along with simple set-back principles and large computer-managed control systems. Students will study among other topics utility rate structure and demand charges and retrofitting of existing buildings. 2 hrs. lecture, 3 hrs. lab/wk. (TEN 6572)

**ENER 271  
HVAC COOPERATIVE EDUCATION I (2-9 CR)**

*Prerequisites: 9 credit hours in JCCC energy courses or approval of division director*

Students can gain on-the-job experience under the supervision of professionals in the industry. The student will work with area employers and college staff to create individualized job experiences. 1 hr. lecture, 6-27 hrs. on-the-job training/wk. (TEN 6574)

**ENER 272  
HVAC COOPERATIVE EDUCATION II (2-9CR)**

*Prerequisite: ENER 271*

**ENER 273  
HVAC COOPERATIVE EDUCATION III (2-9CR)**

*Prerequisite: ENER 272*

**ENER 274  
HVAC COOPERATIVE EDUCATION IV (2-9CR)**

*Prerequisite: ENER 273*

**ENER 281  
SOLAR PROJECT (4CR)**

*Prerequisite: ENER 130*

Students will work with professional equipment in this class on the design and construction of active and passive solar systems. The course will emphasize effective and practical solar designs and systems and include field study experiences. 2 hrs. lecture, 6 hrs. lab/wk. (TEN 6560)

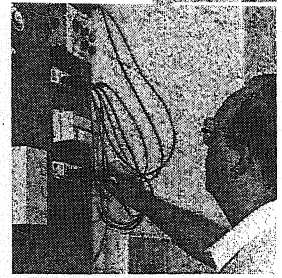
## ENGINEERING

**ENGR 121  
ENGINEERING ORIENTATION (1CR)**

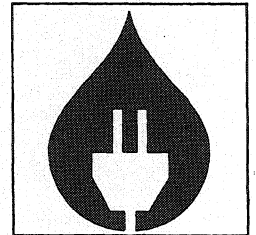
In this introduction to several engineering disciplines, students will have the opportunity to meet with professional engineers and engineering faculty members at regional universities. The class includes presentations, field trips, information about current transfer requirements and about scholarships. 1 hr./wk. (EGR 7651)

**ENGR 131  
ENGINEERING GRAPHICS I (3CR)**

The principles of graphics and design processes will be introduced in this class. Topics include interpretation of drawings; interrelation of points, lines and planes; intersections and developments; graphical solutions

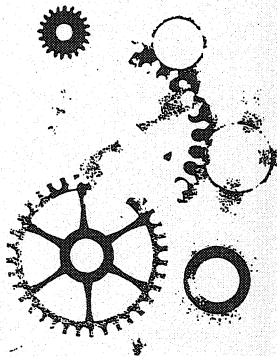


To find out the name of a program coordinator, check the Staff Listing in this catalog.



Many credit courses are offered in the evening. Check the Credit Bulletin for class times.

The Admissions Office is located on the first floor, GEB.



computer-aided operations and computations. Emphasis will be on visualization. 6 hrs. class-lab/wk. (EGR 1243)

**ENGR 132  
ENGINEERING GRAPHICS II (3CR)**

*Prerequisite: ENGR 131*

Students will study and apply techniques in detail and assembly drawing; dimensioning; auxiliary view; sectioning and developments. Emphasis will be on creative design processes and visualization. 6 hrs. class-lab/wk. (EGR 2276)

**ENGR 141  
PROCESSES AND MATERIALS  
OF MANUFACTURING (3CR)**

The principles and theory of producing metal and plastics will be discussed. 3 hrs./wk. (EGR 4661)

**ENGR 152  
BUILDING MATERIALS  
AND CONSTRUCTION (3CR)**

This is a study of building materials, their properties and how they are used in construction. Also discussed will be construction specifications, building codes, trade association publications and standards. 3 hrs./wk. (EGR 7118)

**ENGR 171  
PROGRAMMING FOR ENGINEERING  
AND SCIENCE (4CR)**

*Prerequisite: MATH 171 or equivalent and DP 140*

Students will study and use FORTRAN programming language to develop programming techniques for solving scientific and engineering problems on digital computers. 3 hrs. class wk. Minimum of 3 hrs. lab/wk. by arrangement. (EGR 7724)

**ENGR 180  
ENGINEERING LAND SURVEYING I (3CR)**

*Prerequisite or corequisite: MATH 172 or MATH 134 or equivalent*

This class explains the basic applications of plane surveying procedures; measurement of horizontal distances, directions, angles, leveling, traversing, curves, stadia coordinates; computations with the aid of a computer; and topographical property and construction surveying. Students will take part in field operations using such equipment as auto levels, theodolites and EDM. 6 hrs. class-lab/wk. (EGR 3169)

**ENGR 191  
MECHANISMS (3CR)**

*Prerequisite: ENGR 131*

Students will study motion of machine parts and methods of transmission of motion by links, cams, gears and belts. Computer applications included. 6 hrs./wk. (EGR 6198)

**CIRCUIT THEORY I (3CR)**

*Prerequisites: MATH 243 and PHYS 230  
Corequisites: MATH 244 and PHYS 260*

This course is the first of a two-semester sequence dealing with electrical circuit theory. Students will analyze linear passive electrical circuits. (EGR 3821)

**ENGR 231  
THERMODYNAMICS (3CR)**

*Prerequisites: MATH 242, PHYS 220 and CHEM 124*

This course is an introduction to the thermodynamic principles and their application to the analysis of energy systems which include various power and refrigeration cycles. 3 hrs. lecture/wk.

**ENGR 251  
STATICS (3CR)**

*Prerequisite or corequisite: MATH 241*

This class covers vectors, force systems, friction, centroids and moments of inertia. Computer applications will be included. 3 hrs./wk. (EGR 6082)

**ENGR 252  
MECHANICS OF MATERIALS (3CR)**

*Prerequisite: ENGR 251*

Students will study the theory of simple stress and strains in elastic materials, torsion, beams and columns. Computer applications included. 3 hrs./wk. (EGR 7389)

**ENGR 254  
DYNAMICS (3CR)**

*Prerequisites: ENGR 251 and MATH 242 or concurrent enrollment in MATH 242*

Topics include unbalanced force systems and the resulting motion, work and energy, impulse, momentum and impact. Computer applications will be include. 3 hrs./wk. (EGR 5517)

**ENGR 285  
PROJECT LABORATORY (1-4CR)**

*Prerequisite: ELEC 120 and permission of division director*

Students will construct and possibly design equipment as agreed upon with the instructor. By arrangement. (EGR 4580)

**ENGR 291  
INDEPENDENT STUDY: ENGINEERING (1-7CR)**

*Prerequisite: Approval of division director*

Applications for admission are available in the Admissions Office.

## ENGLISH

### ENGL 100 ENGLISH AS A SECOND LANGUAGE I (5CR)

*Prerequisite:* Appropriate assessment score

This course is designed for students who are familiar with English but who have limited speaking skills. The class focuses on pronunciation and listening comprehension as well as basic grammar and sentence structure. 5 hrs./wk. (CEN 1241)

### ENGL 101 ENGLISH AS A SECOND LANGUAGE II (3CR)

*Prerequisite:* ENGL 100 or appropriate assessment score

This course includes continued work in pronunciation, grammar and sentence structure but emphasizes improvement of reading skills. 3 hrs./wk. (CEN 2275)

### ENGL 105 FUNDAMENTALS OF ENGLISH (3CR)

*Prerequisite:* Appropriate assessment score

This course focuses on grammar, usage and mechanics of edited English emphasizing clear, efficient communication in varied sentence patterns. 3 hrs./wk. (CEN 2651)

### ENGL 106 INTRODUCTION TO WRITING (3CR)

*Prerequisite:* ENGL 105 or appropriate assessment score

In this introductory writing course, students will begin with a review of sentence skills then move into writing paragraphs, emphasizing topic selection, organization, development and editing. The course concludes with an introduction to the essay. 3 hrs./wk. (CEN 1000)

### ENGL 107 SENTENCE PATTERN SKILLS (1CR)

Students will work at their own pace in reviewing the parts of speech, elements of the sentence and basic sentence patterns. Emphasis will be on diagramming and combining sentences. Class includes individualized tutoring and practice in writing. By arrangement. (CEN 3587)

### ENGL 108 COMPOSING SKILLS (1CR)

In this review of the various aspects of composition, students will examine creating, outlining and developing a variety of paragraph and essay forms. Class includes individualized tutoring and practice in writing. By arrangement. (CEN 3588)

### ENGL 109 PROOFREADING SKILLS (1CR)

Students will learn to recognize and correct errors on exercise sheets and in their own writing. By arrangement. (CEN 3589)

### ENGL 121 COMPOSITION I (3CR)

*Prerequisite:* ENGL 105, ENGL 106 or appropriate assessment score

This standard freshman English I course concentrates on the invention, development and organization of essays. Students will practice developing form and content of clear, interesting compositions. 3 hrs./wk. (CEN 7612)

### ENGL 122 COMPOSITION II (3CR)

*Prerequisite:* ENGL 121

This standard freshman English II course emphasizes organization and development of analytical essays written in response to assigned readings. Related research projects will be assigned. 3 hrs./wk. (CEN 5732)

### ENGL 123 TECHNICAL WRITING (3CR)

*Prerequisite:* ENGL 121

Emphasis will be on written communication related to manufacturing and engineering including short reports, letters and resumes. 3 hrs./wk. (CEN 5578)

### ENGL 222 ADVANCED COMPOSITION (3CR)

*Prerequisite:* ENGL 122

Students will write expository and argumentative essays, practicing subject selection, development, organization and style. 3 hrs./wk. Fall. (CEN 5577)

### ENGL 223 CREATIVE WRITING (3CR)

*Prerequisite:* ENGL 122

Students will study and practice poetry and short story writing. Topics include writing verse and fiction effectively, as well as such narrative forms as the play, novel and autobiographical sketch. Students will prepare projects for submission to professional editors and receive marketing tips. 3 hrs./wk. (CEN 5579)

### ENGL 224 CREATIVE WRITING WORKSHOP (3CR)

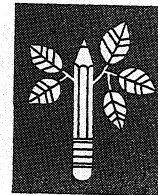
*Prerequisite:* ENGL 233

Students with serious writing aspirations will get advanced practice in writing the short story, novel, non-fiction narrative, play and poetry. Students will gain critical skills by critiquing each other's works. 3 hrs./wk. Spring. (CEN 5580)

### ENGL 225 COLLEGE GRAMMAR (3CR)

*Prerequisite:* ENGL 122

This course provides a systematic study of English using the approach of traditional grammar. Emphasis will be on structure, but attention also will be given to words, their use and abuse. 3 hrs./wk. (CEN 3592)



For related courses, see the Communications section.

You can get help in writing an essay, research paper, journal, business letter, resume, book report or other writing assignment in the Writing Center.



You are considered withdrawn from a class at the time you file an official drop form in the Admissions Office, not when you stop attending class.

**ENGL 230  
INTRODUCTION TO FICTION (3CR)**

*Prerequisite: ENGL 122*

This introduction to fiction from different countries and eras will emphasize fictional techniques and themes in selected novels and short stories. Students will read, discuss and write about the assigned fiction. 3 hrs./wk. (CEN 3898)

**ENGL 231  
AMERICAN WRITERS (3CR)**

*Prerequisite: ENGL 122*

Students will read complete works of selected American writers and be assigned related writing projects. The course focuses on important works of various writers and the relationships between their lives and times and their art. 3 hrs./wk. (CEN 5582)

**ENGL 232  
CHILDREN'S LITERATURE (3CR)**

*Prerequisite: ENGL 122*

Students will read children's literature, both past and present. Topics include children's needs, criteria for selecting books, types of children's literature and the best authors and illustrators. 3 hrs./wk. (CEN 5586)

**ENGL 233  
THE DEAF IN LITERATURE (2CR)**

The portrayal and function of deaf characters in selected works will be examined. Students will read, discuss and write about the assigned selections. 2 hrs./wk. (CEN 4457)

**ENGL 241  
BRITISH WRITERS (3CR)**

*Prerequisite: ENGL 122 or equivalent*

The lives, times and works of selected British writers will be examined. Students will read selected works by major British writers and be assigned related writing projects. 3 hrs./wk. Fall. (CEN 3284)

**ENGL 243  
THE LITERATURE OF SCIENCE FICTION (3CR)**

*Prerequisite: ENGL 122*

The themes and myths of major science fiction writers will be presented and major science fiction movies and short subjects will be reviewed. Class includes group presentations, simulations, guest speakers and related reading and writing assignments. 3 hrs./wk. Fall. (CEN 5585)

**ENGL 250  
WORLD MASTERPIECES (3CR)**

*Prerequisite: ENGL 122*

Students will read complete works of selected influential Western World writers. Course focuses on important works of various writers and traces their influence on later writers. Writing projects will be assigned. 3 hrs./wk. Spring. (CEN 5583)

**ENGL 252  
POETRY AND DRAMA (3CR)**

*Prerequisite: ENGL 122*

In this course, students will read poetry and plays of all styles and types. They will also attend selected plays and poetry readings. Writing projects will be assigned. 3 hrs./wk. Spring. (CEN 5581)

**ENGL 254  
MASTERPIECES OF THE CINEMA (3CR)**

*Prerequisite: ENGL 122*

Major American and foreign films will be shown and discussed with video and film-shorts added for variety and interest. Class features group presentations, written film critiques and related reading assignments. 3 hrs./wk. Spring. (CEN 5584)

## **EQUINE**

**EQUUS 110  
RECREATIONAL HORSE MANAGEMENT (3CR)**

This course is for inexperienced horseowners and those interested in purchasing a horse. Topics include the purchase of a horse and related equipment, maintenance of a pleasure horse and safety. 3 hrs., 1 day/wk. (SES 2747)

**EQUUS 120  
STABLE MANAGEMENT I (4CR)**

The caring of horses — feeding, grooming, barn sanitation and upkeep — will be studied. 2 hrs. class, 4 hrs. practical exercises in the stable/wk. (SES 4734)

**EQUUS 124  
EQUINE ANATOMY AND PHYSIOLOGY (4CR)**

Students will study the structure and development of the circulatory, nervous, skeletal, muscular, digestive and respiratory systems of horses. 4 hrs./wk. (SES 2335)

**EQUUS 126  
EQUINE JUDGING (2CR)**

Topics include equine selection, class placings and evaluation techniques. 4 hrs./wk. (SES 1308)

**EQUUS 128  
EQUITATION I (4CR)**

This instruction in the classical form of riding and training horses includes terminology, equitation and rules for competition. 4 hrs./wk. for 16 wks. (SES 4141)

**EQUUS 132  
EQUINE HEALTH, DISEASE, NUTRITION  
AND DISORDERS (4CR)**

*Prerequisite: EQUUS 124*

This is a study of general health care and routine procedures; nutrition; preventive health care; restraint of horse; horse owner's basic treatments; equine obstetrics and foal care; equine ailments; special treatments and procedures; and the use of drugs and related substances. 5 hrs. class-lab/wk. (SES 3820)



The Tutor Exchange, a list of tutors available to students, is offered through the Learning Center.



**EQUUS 134  
TECHNIQUES OF RIDING INSTRUCTION I (3CR)**

*Prerequisite: Approval of division director*

Students who intend to specialize in riding instruction can participate in this cooperative work experience class. It features demonstrations of teaching methods, skills development and oral presentations. 4 hrs./wk. (SES 1184)

**EQUUS 135  
TECHNIQUES OF RIDING  
INSTRUCTION II (3CR)**

*Prerequisite: EQUUS 134*

Areas covered in this cooperative work experience class include planning safe camp programs and public lessons; rider problems; maintenance of the school horse; and practice in planning and teaching at the elementary and intermediate levels of riding. 4 hrs./wk. (SES 1237)

**EQUUS 140  
STABLE MANAGEMENT II (4CR)**

*Prerequisite: EQUUS 120*

This course stresses elements of supervision as well as general horse management. Topics include basic horseshoeing, training techniques, loading, driving, general mechanics and grooming. 4 hrs./wk. (SES 2352)

**EQUUS 142  
ADVANCED HORSE TRAINING (2CR)**

*Prerequisite: EQUUS 140*

This advanced cooperative work experience class concentrates on training horses for special events. 4 hrs. /wk. (SES 3784)

**EQUUS 154  
EQUITATION II (4CR)**

*Prerequisite: EQUUS 128*

This introduction to saddle seat equitation will stress the position of the rider, control of the horse and basic movements. 6 hrs./wk. (SES 2746)

**EQUUS 220  
STABLE MANAGEMENT III (4CR)**

*Prerequisite: EQUUS 140*

This continuation of EQUUS 140 emphasizes horse handling. It covers haltering, leading, biting, lunging, saddling and bridling restraining and general stable management. 4 hrs./wk. (SES 1350)

**EQUUS 222  
EQUINE BREEDING AND MANAGEMENT (4CR)**

*Prerequisite: EQUUS 124*

Topics include anatomy, reproductive physiology, genetics, breeding diseases, congenital and hereditary problems, selection and management of breeding stock. 5 hrs./wk. (SES 3029)

**EQUUS 257  
STABLE MANAGEMENT IV (4CR)**

*Prerequisite: EQUUS 220*

Students will study the business functions related to stable management, human relations and supervisory techniques, showmanship and judging. 4 hrs./wk. (SES 1103)

**EQUUS 281  
ADVANCED EQUITATION PROJECT (2CR)**

*Prerequisite: Approval of division director*

Under the supervision of an instructor, the student will develop an individual project stressing skills not fostered in the equine program courses. Projects must have clearly stated objectives and be approved by program coordinator. 4 hrs./wk. (SES 3489)

## **FASHION MERCHANDISING**

**FASH 121  
FASHION FUNDAMENTALS I (3CR)**

Students will study the total fashion industry from the designer to the manufacturer and distributor. The class will conclude with consumer and merchandising trends. 3 hrs./wk. Fall. (BFM 7013)

**FASH 125  
FASHION DISPLAY (3CR)**

The visual merchandising of fashion products is the topic of this course. Students will work on creating effective interior and window displays using materials, colors, lighting and signs. 3 hrs./wk. Fall. (BFM 1054)

**FASH 130  
FASHION ILLUSTRATION I (3CR)**

Students will sketch human figures and clothing designs to be used in newspaper and magazine advertising. 3 hrs./wk. (BFM 5294)

**FASH 132  
FASHION PROMOTION (3CR)**

Fashion promotion — including publicity, special events, fashion shows, personal selling, advertising and display — will be explored in this course. Students will plan a fashion show, choosing themes, merchandise, location, music and commentary. 3 hrs./wk. Spring. (BFM 4655)

**FASH 150  
TEXTILES (3CR)**

Natural and synthetic textile fibers, weaves, knits, dyeing and printing methods will be studied with emphasis on selling techniques, care and use of textiles. 3 hrs./wk. (BFM 1195)

**FASH 220  
FASHION IN SOCIETY (3CR)**

In this look at the psychological, economic and sociological aspects of clothing, students will relate wardrobe management and artistic expression to personal clothing choices and to clothing symbolism in other cultures. 3 hrs./wk. (BFM 3046)

*The JCCC campus features a barn, pasture area and a riding arena adjacent to the barn.*



*When "Fall" or "Spring" is included at the end of a course description, it means that course is offered only during that semester.*

Most JCCC fashion merchandising graduates enter the field of retailing.

**FASH 224  
HISTORY OF DRESS (3CR)**

In this look at the evolution of dress in the Western world, key topics will be the fashion cycle and how economic, political, social and technological advancements affect it. 3 hrs./wk. Spring. (BFM 2568)

**FASH 230  
FASHION ILLUSTRATION II (3CR)**

*Prerequisite: FASH 130*

This is an in-depth study of fashion illustration as a visual selling technique with emphasis on developing an individual style. Students will develop a portfolio geared to their individual goals. 3 hrs./wk. Spring. (BFM 1926)

**FASH 231  
FASHION FUNDAMENTALS II (3CR)**

*Prerequisite: FASH 121*

The technical aspects of merchandising, personnel policies, principles of management, role of the buyer, buying principles and merchandising mathematics are covered in this course. 3 hrs./wk. Fall. (BFM 1019)

**FASH 242  
MERCHANDISE EVALUATION (3CR)**

Students will evaluate textile and non-textile products ranging from lingerie to china. Students will prepare a manual and conduct simulated departmental meetings to train staff in selling a selected product. 3 hrs./wk. Spring. (BFM 3503)

**FASH 271  
FASHION SEMINAR:  
HUMAN RELATIONS (2-3CR)**

*Prerequisite: Admission to the Fashion Merchandising Program*

Students will work in an approved training situation under supervision of the instructor, concentrating on how people can work effectively in groups to satisfy both individual and organizational needs. 2 hrs./wk. with a minimum of 15 hrs. on-the-job training by arrangement. Fall. (BFM 3863)

**FASH 274  
FASHION SEMINAR:  
SUPERVISORY DEVELOPMENT (2-3CR)**

*Prerequisite: Admission to the Fashion Merchandising Program*

Students will work in an approved training situation under the supervision of the instructor, concentrating on communicating ideas, obtaining teamwork, determining goals, assessing promotability, getting results through group effort and key problems in supervision. 2 hrs./wk. with a minimum of 15 hrs. on-the-job training/wk. by arrangement. Spring. (BFM 3865)

**FASH 276  
FASHION SEMINAR:  
CAREER OPTIONS (2-3 CR)**

*Prerequisite: Admission to the Fashion Merchandising Program*

Students will work in an approved training situation under the supervision of the instructor. They also will work on developing career goals by exploring career options. 2 hrs./wk. with a minimum of 15 hrs. on-the-job training/wk. by arrangement. Fall. (BFM 3864)

**FASH 279  
FASHION SEMINAR:  
MARKET RESEARCH (2-3CR)**

*Prerequisite: Admission to the Fashion Merchandising Program*

Students will work in an approved training situation under the supervision of an instructor, concentrating on marketing research and problem-solving techniques. Topics include simple statistical measurements and how they can help solve specific business problems. 2 hrs./wk. and a minimum of 15 hrs. on-the-job training by arrangement/wk. Spring. (BFM 3862)

**FASH 298  
EUROPEAN FASHION EMPHASIS (3CR)**

This class offers a comparison of American and European retail merchandising, advertising and visual presentation.

**FIRE PROTECTION /  
PUBLIC SAFETY AND  
ADMINISTRATION**

**FIRE 121  
FUNDAMENTALS OF FIRE PREVENTION (3CR)**

This class covers the organization and function of fire prevention; inspections, surveying and mapping; recognizing life and fire hazards; eliminating fire hazards; and public relations. 3 hrs./wk. (EFS 1745)

**FIRE 125  
BUILDING CONSTRUCTION  
FOR FIRE PROTECTION (3CR)**

Students will explore how to classify buildings by occupancy and types of construction with emphasis on fire protection features including building equipment, facilities, fire-resistive materials and high-rise considerations. 3 hrs./wk. (EFS 3744)

**FIRE 127  
FIRE PHOTOGRAPHY (3CR)**

In this introduction to fire photography, students will study types of equipment used and how photography can help meet department goals and objectives. 3 hrs./wk. (EFS 4089)

See the career program section for the Fire Protection Administration/ Fire Protection and Public Safety career program.



**FIRE 130  
FIRE INVESTIGATION (3CR)**

How to determine the cause of the fire will be explained in this introductory course. The course does not deal with arson investigation except as it relates to determining the cause of fire. 3 hrs./wk. (EFS 1529)

**FIRE 132  
ARSON INVESTIGATION (3CR)**

*Prerequisites: FIRE 127 and FIRE 130*  
Arson investigation techniques and procedures — including evidence preservation, interviewing and courtroom procedures — will be covered in this class for advanced students. 3 hrs./wk. (EFS 1527)

**FIRE 135  
LIFE SAFETY CODES (3CR)**

Advanced students will study how to read and interpret codes and ordinances especially the Life Safety Codes which are used extensively in fire prevention. 3 hrs./wk. (EFS 1528)

**FIRE 137  
EXTINGUISHING, DETECTION  
AND ALARM SYSTEMS (3CR)**

This introductory course for advanced students will cover types of extinguishing, detection and alarm systems and how they operate. 3 hrs./wk. (EFS 1525)

**FIRE 150  
INTRODUCTION TO FIRE SCIENCE (3CR)**

Topics include career opportunities; history of fire protection; fire loss analysis; public, quasi-public and private fire protection services; specific fire protection functions; fire chemistry and physics. 3 hrs./wk. (EFS 1743)

**FIRE 155  
FIRE HYDRAULICS (3CR)**

This is a review of mathematics and hydraulics laws. Students will apply formulas and calculate hydraulics and water supply problems. 3 hrs./wk. (EFS 1748)

**FIRE 157  
FIRE HYDRAULICS LABORATORY (1CR)**

*Corequisite: FIRE 155*  
Students will experiment with and apply hydraulic laws, formulas and calculations of hydraulic and water supply problems. Also covered will be the testing of water flows and water supplies as a function of hydraulics. 3 hrs./wk. (EFS 2577)

**FIRE 160  
FIRE APPARATUS AND EQUIPMENT (3CR)**

Fire apparatus — its design, specifications, capabilities and use in emergencies — will be covered. 3 hrs./wk. (EFS 3757)

**FIRE 162  
FIRE TACTICS AND STRATEGY (3CR)**

Fire control through manpower, equipment and extinguishing agents will be explored in this second-year course. 3 hrs./wk. (EFS 5756)

**FIRE 165  
RESCUE PRACTICES (3CR)**

Topics in this first-year course include rescue problems and techniques; emergency rescue equipment; toxic gases; chemicals and diseases; radiation hazards; care of victims; emergency childbirth; respiration and resuscitation; extrication; and other emergency conditions. 3 hrs./wk. (EFS 6755)

**FIRE 167  
RESCUE PRACTICES LABORATORY (1CR)**

*Corequisite: FIRE 165*  
Students will apply rescue theories and techniques including auto extrication, repelling and CPR. 3 hrs./wk. (EFS 4481)

**FIRE 170  
SPRINKLER AND STANDPIPE SYSTEMS (3CR)**

This advanced course explains the types of sprinkler and standpipe systems used in fire protection and how to operate them. 3 hrs./wk. (EFS 1523)

**FIRE 172  
HAZARDOUS MATERIALS (3CR)**

*Prerequisite: CHEM 122*  
Advanced students will study how to recognize hazardous materials and how to manage incidents involving hazardous materials. Topics include explosives, radioactive material, flammable and compressed gases as well as transporting hazardous materials. 3 hrs./wk. (EFS 1531)

**FIRE 175  
ESSENTIALS OF FIREFIGHTING (4CR)**

This first-year class will explain basic firefighting skills with emphasis on the theory of fire protection and on identifying and using equipment safely. 3 hrs. lecture, 3 hrs. lab/wk. (EFS 7981)

**FIRE 220  
MUNICIPAL FIRE ADMINISTRATION (3CR)**

Techniques and methods used in managing fire departments will be explored in this second-year class including budgeting processes, administrative functions and types of political systems which affect a fire department. 3 hrs./wk. (EFS 1532)

**FIRE 222  
FIRE SCIENCE LAW (3CR)**

The law as it pertains to the fire service will be explained along with tort law and business law in this class for advanced students. 3 hrs./wk. (EFS 1526)

*JCCC produces a number of community service programs on Overland Park Telecable channel 3A.*



*The number of credit hours a course is worth is listed in parentheses after the course title.*

JCCC also offers non-credit language courses if you need to sharpen your speaking skills quickly.

**FIRE 224  
EMERGENCY MANAGEMENT  
OPERATIONS (3CR)**

Disaster control, disaster management, communications for disaster management and types of disasters will be covered in this class. 3 hrs./wk. (EFS 1524)

**FIRE 281  
DIRECTED STUDIES  
FOR THE FIRE SERVICE (1-2 CR)**

Students will conduct research and study in their individual areas of interest. The instructor and student will decide on a topic to be researched. The student will report the results of the research in a written report, reflecting the recognized form and style of writing. By arrangement. (EFS 4597)

**FOREIGN LANGUAGE**

**FL 120  
ELEMENTARY GERMAN I (5CR)**

This course presents the sounds, vocabulary and basic structural patterns of German, focusing on the development of listening comprehension, speaking, reading and writing skills. Cultural material is integrated into the course. 5 hrs. class, 1/2 hr. lab/wk. (CFL 3196)

**FL 121  
ELEMENTARY GERMAN II (5CR)**

*Prerequisite: FL 120 or one year of high school German*

This course continues the presentation of the vocabulary and basic structural patterns begun in ELEMENTARY GERMAN I with continued emphasis on the development of listening comprehension, speaking, reading and writing skills. 5 hrs. class, 1/2 hr. lab/wk. (CFL 6207)

**FL 130  
ELEMENTARY SPANISH I (5CR)**

In this basic course, students will study Spanish grammar, conversation, composition and the culture of Spanish-speaking countries. 5 hrs. class, 1/2 hr. lab/wk. (CFL 3285)

**FL 131  
ELEMENTARY SPANISH II (5CR)**

*Prerequisite: FL 130 or one year of high school Spanish*

This course continues the presentation of material introduced in SPANISH I. Graded reading selections are added as a basis for conversation and composition in discussion periods. 5 hrs. class, 1/2 hr. lab/wk. (CFL 1239)

**FL 140  
ELEMENTARY FRENCH I (5CR)**

Areas covered in this basic course include vocabulary building, grammar study, conversation and an introduction to French culture and civilization. Emphasis is on conversation. 5 hrs. class, 1/2 hr. lab/wk. (CFL 4570)

**FL 141  
ELEMENTARY FRENCH II (5CR)**

*Prerequisite: FL 140 or one year of high school French*

This course continues the presentation of material introduced in FRENCH I. Graded reading selections will be used as the basis for conversations. 5 hrs. class, 1/2 hr. lab/wk. (CFL 2293)

**FL 150  
ELEMENTARY RUSSIAN I (5CR)**

In this course, students will study the sounds, vocabulary and basic structural patterns of Russian. Focus will be on listening comprehension, speaking, reading and writing skills. Cultural material will be included. 5 hrs. class, 1/2 hr. lab/wk. (CFL 3391)

**FL 220  
INTERMEDIATE GERMAN (3CR)**

*Prerequisite: FL 121 or two years of high school German*

This class emphasizes vocabulary building and grammar review primarily through extensive reading of German texts. There will be additional practice in listening comprehension, speaking and writing. 3 hrs. class, 1/2 hr. lab/wk. (CFL 3401)

**FL 221  
ADVANCED GERMAN (3CR)**

*Prerequisite: FL 220 or three years of high school German*

This class further expands the mastery of German vocabulary and structure through extensive reading of more advanced texts with additional practice in listening comprehension, speaking and writing. 3 hrs. class, 1/2 hr. lab/wk. (CFL 5199)

**FL 230  
INTERMEDIATE SPANISH (3CR)**

*Prerequisite: FL 131 or two years of high school Spanish*

This is a reading course designed to build vocabulary, increase students' understanding of Hispanic culture and increase speaking fluency. The course includes composition and conversation. 3 hrs. class, 1/2 hr. lab/wk. (CFL 7221)

**FL 231  
ADVANCED SPANISH (3CR)**

*Prerequisite: FL 230 or three years of high school Spanish*

Extensive study of Hispanic literature is included in this class along with advanced reading and grammar review. 3 hrs. class, 1/2 hr. lab/wk. (CFL 6626)



JCCC offers training in four foreign languages: German, Spanish, French and Russian.



**FL 240  
INTERMEDIATE FRENCH (3CR)**

*Prerequisite: FL 141 or two years of high school French*

Students will work on building vocabulary and comprehension and increasing speaking ability. Emphasis is on conversation and composition. A grammar review of FRENCH I and II also is included. 3 hrs. class, 1/2 hr. lab/wk. (CFL 2293)

**FL 241  
ADVANCED FRENCH (3CR)**

*Prerequisite: FL 240 or three years of high school French*

Students will study newspaper articles from MATCH, ELLE and L'EXPRESS in this advanced reading course. A complete grammar review, conversation and composition are included. 3 hrs. class, 1/2 hr. lab/wk. (CFL 1442)

**FL 243  
CONVERSATIONAL FRENCH (2CR)**

*Prerequisite: FL 141 or two years of high school French*

This course is designed to build spontaneous speaking ability. Everyday life situations and current events are discussed in class. 2 hrs./wk. (CFL 2247)

**FL 298  
FRENCH CULTURE AND CIVILIZATION (3CR)**

In this travel-for-credit course to France, students will experience French culture as they visit Paris and most of the sites and places of historical significance in France. Summer. (CFL 3939)

## HEALTH

**HLTH 120  
FIRST AID CPR (3CR)**

This class will cover cause, prevention and first aid care of common emergencies. American Red Cross certification can be earned in standard first aid and personal safety and in cardiopulmonary resuscitation. 3 hrs./wk. (PD 2711)

**HLTH 125  
PERSONAL HEALTH  
AND COMMUNITY HYGIENE (3CR)**

Students will discuss the maintenance of good health. Discussion topics will include exercise and fitness, drug abuse, emotional health, proper nutrition, alcohol, tobacco, chronic and communicable diseases, human sexuality and consumer health. The relationships between the individual and community health will be emphasized. 3 hrs./wk. (PD 4368)

**HLTH 250  
CARE AND PREVENTION  
OF ATHLETIC INJURY (3CR)**

This introduction to athletic training techniques for the competitive and recreational athlete will cover prevention of sports injuries, rehabilitation and taping

techniques and proper nutrition. The student will receive Cramer Certification as a student trainer upon successful completion of the course. 3 hrs./wk. (PD 4342)

## HEARING IMPAIRED

**HRIM 100  
BASIC ENGLISH FOR HEARING  
IMPAIRED PERSONS I (HIP) (3CR)**

Students will work on basic skills in written communication including sentence structure, the system of language and its characteristics and functions. Vocabulary and the effect of words will be emphasized. 5 hrs./wk. (AHP 6083)

**HRIM 101  
BASIC ENGLISH FOR HIP II (3CR)**

*Prerequisite: HRIM 100*

In this continuation of HRIM 100, emphasis is on the areas leading to clear, written communication: grammar, organization, idiomatic usage, spelling and vocabulary. 5 hrs./wk. (AHP 6084)

**HRIM 102  
BASIC ENGLISH FOR HIP III (3CR)**

*Prerequisite: HRIM 101*

Students will practice expression through writing compositions. Emphasis is on organization, clarity of expression and style. 5 hrs./wk. (AHP 6085)

**HRIM 105  
ADJUSTMENTS INTO ADULT LIVING (HIP) (3CR)**

This class teaches the daily living skills students need to become part of the mainstream in college including study habits, money management and employer-employee relationships. Also included will be an introduction to college facilities and support services, career exploration and clarification of personal values. 3 hrs./wk. (AHP 3024)

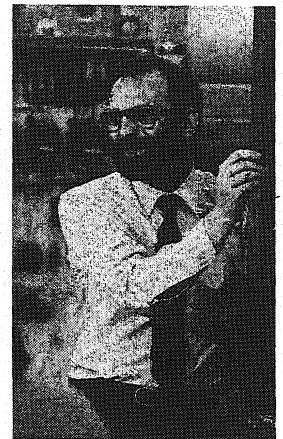
**HRIM 107  
SPEECH THERAPY (3CR)**

This small group learning experience is designed to meet the student's needs. It will cover communication disorders related to hearing loss, disfluency, resonance, voice and articulation problems. 3 hrs./wk. (AHP 6815)

**HRIM 110  
DEVELOPMENTAL READING FOR  
THE HEARING IMPAIRED I (2CR)**

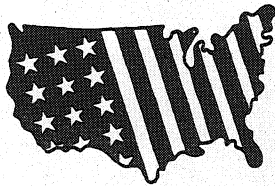
The hearing impaired student can work on reading skills in these small group sessions. The course emphasizes reading comprehension and vocabulary development through selected readings, current affairs readings, discussion and vocabulary building. 3 hrs./wk. (CLC 4609)

*The Gallaudet College Extension Center at JCCC provides Missouri, Kansas, Nebraska, Oklahoma, Arkansas and Iowa with a variety of credit and non-credit educational experiences related to the hearing impaired.*



*Health courses have no prerequisites.*

Make sure elective courses will transfer...See your JCCC counselor before enrolling.



**HRIM 111  
DEVELOPMENTAL READING FOR  
THE HEARING IMPAIRED II (3CR)**

*Prerequisite: HRIM 110*

The hearing impaired student can continue to develop reading skills in these group sessions. Emphasis is on reading, comprehension and vocabulary development through selected readings, Line 21 decoder, discussion and vocabulary building. 3 hrs./wk. (CLC 4626)

**HRIM 115  
FUNDAMENTALS OF MATH (HIP) (3CR)**

This class focuses on a review of fractions, decimals and whole numbers; numeration; practical applications of percent, dimensions and linear equations. 3 hrs./wk. (MTH 2122)

**HRIM 121  
BASIC MANUAL COMMUNICATIONS (3CR)**

In this course on Basic Sign Language, students will work on developing visual perception, body language skills and basic sign language communication skills. 3 hrs./wk. (AHP 7029)

**HRIM 123  
INTERMEDIATE MANUAL  
COMMUNICATIONS (3CR)**

*Prerequisite: HRIM 121*

This continued study of Sign Language emphasizes signed vocabulary in context, body and facial grammatical markers, and facial expressions. 3 hrs./wk. (AHP 4488)

**HRIM 291  
INDEPENDENT STUDY: HEARING  
IMPAIRED (1-7CR)**

*Prerequisite: Approval of division director*

Students will take part in directed independent study focusing on areas related to education of the hearing impaired.

## HISTORY

**HIST 120  
LOCAL AND KANSAS HISTORY (3CR)**

In this course on the development of local community life from 1850 to the present, students first will study the Indian population in Kansas in 1850. Next they will study the coming of the settlers and the development of their communities. Also examined will be how Kansas communities grew and how they reflected national trends. Speakers will be featured in class and a project required. 3 hrs. lecture/wk. (SS 1776)

**HIST 125  
WESTERN CIVILIZATION:  
READINGS AND DISCUSSION I (3CR)**

Students will consider major ideas in Western civilization dealing with man's relationship to the environment and speculations about the nature of God.

Students will read the works out of class and take part in small group discussions every other week. (SS 5500)

**HIST 126  
WESTERN CIVILIZATION:  
READINGS AND DISCUSSION II (3CR)**

Major ideas in Western civilization dealing with social, economic, political and ethical relations will be explored. Students will read the works out of class and take part in small group discussions every other week. (SS 2006)

**HIST 130  
EUROPEAN HISTORY FROM 1750 (3CR)**

Major trends in Europe from the period of the Industrial Revolution through today will be examined. Topics include industrialization, nationalism and World Wars I and II. 3 hrs./wk. (SS 9922)

**HIST 140  
U.S. HISTORY TO 1877 (3CR)**

This survey course in U.S. history emphasizes developments and trends in American society from the early period of discovery and settlement through Reconstruction. Topics include the Colonial era, the Revolutionary period, the Federalist era, expansion of the Republic during the mid-19th century and the Civil War and Reconstruction. 3 hrs./wk. (SS 1055)

**HIST 141  
U.S. HISTORY SINCE 1877 (3CR)**

This survey course emphasizes developments and trends in American society from the 1870s to the mid-20th century. Topics include the Reconstruction era, industrialization, immigration, reform movements, World Wars I and II, and foreign policy. Emphasis is on Wars analysis and interpretation of the development. 3 hrs./wk. (SS 2000)

**HIST 160  
MODERN RUSSIAN HISTORY (3CR)**

This course focuses on the social, economic, political and cultural forces that have shaped this important world power since the reign of Peter the Great. 3 hrs./wk. (SS 4087)

## HOME ECONOMICS

**HMEC 131  
FAMILY COMMUNICATIONS (3CR)**

Strategies for coping with stressful situations, the adult and family life cycle, and current issues involving families such as drugs, violence and divorce will be examined. 3 hrs./wk. (BLH 7003)

**HMEC 142  
HOME MANAGEMENT (3CR)**

A systems approach to management, especially of the dual-career family, will be examined. Topics include goal setting, planning, decision making and the management of time, energy and money. 3 hrs./wk. (BLH 7004)



**HMEC 151  
NUTRITION AND MEAL PLANNING (3CR)**

Emphasis will be on basic food groups — their use in meal planning, their functions and their nutritional values. Current trends in eating, diet and exercise as well as fad diets and life cycle nutritional needs will be considered. Students will evaluate their own diets. 3 hrs./wk. (BLH 2859)

## **HORTICULTURE**

**HORT 115  
HOME HORTICULTURE (2CR)**

This is an introduction to the management of a home lawn, garden and trees. Students will review the horticulture industry, look at career opportunities and practice in the lab techniques studied in class. 1 hr. lecture, 2 hrs. lab/wk. (NAB 2857)

**HORT 120  
FUNDAMENTALS OF LANDSCAPING (3CR)**

Topics include developing a landscaping plan, identifying landscape materials, managing a landscape and constructing a residential landscape. 2 hrs. lecture, 2 hrs. lab/wk. (NAB 5620)

**HORT 125  
HORTICULTURE I (5CR)**

*Prerequisite: BIOL 125*

Students will examine the classification, taxonomy, nomenclature and growth of horticultural plants. 3 hrs. lecture, 4 hrs. lab/wk. (NAB 5205)

**HORT 126  
HORTICULTURE II (5CR)**

*Prerequisite: HORT 125*

This is an exploration of management practices used in greenhouse and nursery production. 3 hrs. lecture, 4 hrs. lab/wk. (NAB 5206)

**HORT 220  
WOODY PLANT MATERIALS (3CR)**

*Prerequisite: HORT 126*

Students will explore woody plant materials used for ornamental purposes. They also will look at how to operate a successful commercial nursery. 2 hrs. lecture, 3 hrs. lab/wk. (NAB 5203)

**HORT 221  
HERBACEOUS PLANT MATERIALS (3CR)**

*Prerequisite: HORT 126*

Students will study herbaceous plants used for ornamental purposes. Merchandising techniques for such plants also will be examined. 2 hrs. lecture, 3 hrs. lab/wk. (NAB 5204)

## **HOSPITALITY MANAGEMENT**

**HMGT 121  
HOSPITALITY MANAGEMENT FUNDAMENTALS (3CR)**

This is an overview of the organization of the food service and public lodging industries and departmental functions; positions of the industries in the American economic system and; functions and limitations of the types of establishments. 3 hrs./wk. (BHM 6037)

**HMGT 123  
BASIC FOOD PREPARATION (3CR)**

*Prerequisite: Admission to the Hospitality Management Program*

In this study of basic food preparation in the hospitality industry topics include quantity food preparation; grilling, frying, broiling and sauteing; use and maintenance of equipment; duties performed at each station and; meat cuts, basic salad dressings and sauces. 3 hrs./wk. (BHM 7028)

**HMGT 126  
FOOD MANAGEMENT (4CR)**

*Prerequisite: HMGT 123 and admission to the Hospitality Management Program*

Areas emphasized include menu planning and meal service for all phases of food service and various occasions; buffet service; French service; American service; and waiter/waitress training. Students will take part in the operation of a campus dining room and will be involved in profit and loss statements, sales promotion and competitiveness studies. 6 hrs./wk. (BHM 3006)

**HMGT 128  
SUPERVISORY MANAGEMENT (3CR)**

Basic supervisory management skills, management styles, motivation with emphasis on human relations, delegation training, evaluation and communication are among the areas covered. 3 hrs./wk. (BHM 4489)

**HMGT 219  
HOTEL - MOTEL OPERATIONS (3CR)**

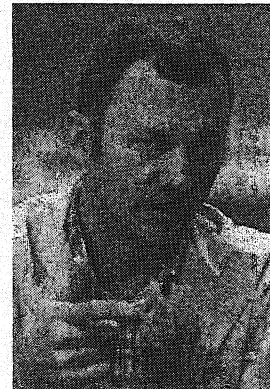
The management of public lodging establishments will be the focus of this course. Topics include front office procedures, rental of rooms, reception of guests, handling reservations, guest requests and complaints, convention and meeting procedures, guest records, mail and other routine procedures. 3 hrs./wk. (BHM 4203)

**HMGT 221  
DESIGN TECHNIQUES (3CR)**

*Prerequisites: HMGT 123 and HMGT 271*

Food service design — including the menu, the location and the type of clientele expected — will be studied in detail. Topics include layout, design and equipment specification. 3 hrs./wk. (BHM 3903)

Registration dates are announced each semester in the Credit Bulletin. Bulletins are available in the Admissions Office.

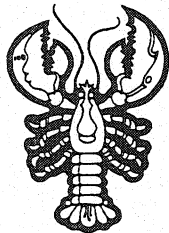


For information about JCCC's Hospitality Management Program, see the Career Programs section.

The Adults Unlimited program offers support, workshops and other services to the adult returning to college.



The official academic calendar – including the dates each semester begins and ends – is included at the front of the catalog.



**HMGT 223  
FUNDAMENTALS OF BAKING (3CR)**

Topics include ingredients, measurements, mixing, proofing, baking and final presentation. Students also will study various types of baking equipment. Class includes lecture and participation. 3 hrs./wk. (BHM 2163)

**HMGT 226  
FOOD SPECIALTIES - GARDE MANGER (3CR)**

*Prerequisite: HMGT 123*  
This course covers soups, stocks, sauces, garde-manger section, chaudroid pieces, buffets, and ice carving. 3 hrs./wk. (BHM 2166)

**HMGT 228  
ADVANCED HOSPITALITY  
MANAGEMENT (3CR)**

*Prerequisites: HMGT 121, HMGT 128, HMGT 274*  
Students will have the opportunity to apply their skills in menu planning, food service, supervision, design and beverage control. This class focuses on managerial responsibility. 3 hrs./wk. (BHM 1388)

**HMGT 230  
INTERMEDIATE FOOD PREPARATION (3CR)**

*Prerequisite: HMGT 123*  
This course is designed to help the student's transition from basic to intermediate food skills. Students will study secondary sauces as well as the entire area of American cuisine. The course consists of lecture, demonstration and participation in food preparation. (BHM 5185)

**HMGT 231  
ADVANCED FOOD PREPARATION (4CR)**

*Prerequisites: HMGT 230 and HMGT 126*  
Students with intermediate food skills can concentrate on the advanced skills necessary for preparing international cuisine. 4 hrs./wk. (BHM 7803)

**HMGT 244  
SCHOOL FOOD SERVICE DEVELOPMENT (1CR)**

In a hands-on practical approach to cafeteria operations, the class will cover four areas: productivity and planning, purchasing, preparation and service. 1 hr./wk. (BHM 3425)

**HMGT 271  
SEMINAR IN HOSPITALITY MANAGEMENT:  
PURCHASING (2-3CR)**

*Prerequisite: Admission to the Hospitality Management Program*  
Students will study purchasing techniques and specification writing for items used in the industry. This training takes place in a supervised work situation in an approved area of hospitality industry. 2 hrs. class, 15 hrs. minimum of on-the-job training/wk. By arrangement. (BHM 4593)

**HMGT 274  
SEMINAR IN HOSPITALITY MANAGEMENT:  
ACCOUNTING (2-3CR)**

*Prerequisite: Admission to the Hospitality Management Program*  
Students will prepare operation statements for food service operators, inventories and control systems. Areas of concentration will be food cost controls, labor cost controls and profit production. This training takes place in a supervised work situation in an approved area of the hospitality industry. 2 hrs./wk. (BHM 4592)

**HMGT 275  
SEMINAR IN HOSPITALITY  
MANAGEMENT INTERNSHIP (2-3CR)**

*Prerequisite: Admission to the Hospitality Management Program*  
This class consists of supervised work experience in an approved area of the hospitality field. By arrangement. Summer. (BHM 2640)

**HMGT 277  
SEMINAR IN MENU PLANNING  
AND SALES PROMOTION (2-3CR)**

*Prerequisite: HMGT 123*  
This course covers menu planning for every type of service and facility. Topics include menu layout, selection and development; price structures; the theory of menu design. 2 hrs. class, a minimum of 15 hrs. on-the-job training by arrangement/wk. (BHM 4591)

**HMGT 279  
SEMINAR IN BEVERAGE CONTROL (2-3CR)**

In this course on beverage control in all types of operations, topics include history of wines, their use and storage procedures. Students will take part in an in-depth study of spirits, internal control systems and local and state alcoholic beverage control laws. 3 hrs./wk. (BHM 4594)

**HMGT 281  
CULINARY ARTS PRACTICUM I (2CR)**

*Prerequisite: Acceptance into the American Culinary Federation Chef Apprenticeship Training Program*  
A qualified chef will supervise this on-the-job apprentice training. Students will study and apply food preparation and presentation techniques, gaining experience in all phases of food service operation. (BHM 2913)

**HMGT 282  
CULINARY ARTS PRACTICUM II (2CR)**

*Prerequisite: HMGT 281*  
This is a continuation of CULINARY ARTS PRACTICUM I. (BHM 4941)

**HMGT 285  
CULINARY ARTS PRACTICUM III (2CR)**

*Prerequisite: HMGT 282*  
This is a continuation of CULINARY ARTS PRACTICUM II. (BHM 5942).



**HMG 286  
CULINARY ARTS PRACTICUM IV (2CR)**

*Prerequisite:* HMG 285

This is a continuation of CULINARY ARTS PRACTICUM III. (BHM 7943)

**HMG 287  
CULINARY ARTS PRACTICUM V (2CR)**

*Prerequisite:* HMG 286

This is a continuation of CULINARY ARTS PRACTICUM IV. (BHM 6944)

**HMG 288  
CULINARY ARTS PRACTICUM VI (2CR)**

*Prerequisite:* HMG 287

This is a continuation of CULINARY ARTS PRACTICUM V. (BHM 9945)

## HUMANITIES

**HUM 122  
INTRODUCTION TO THE HUMANITIES (3CR)**

This interdisciplinary study begins with a look at artistic and technical elements of several art forms including painting, music and drama. Major themes these art forms express also are examined. 3 hrs./wk. (HUM 6120)

**HUM 133  
COMPARATIVE CULTURES (3CR)**

This interdisciplinary study traces the development of the humanities in two European cultures and one Asian culture. This information will serve as background to a study of the arts in contemporary society. 3 hrs./wk. (HUM 5431)

**HUM 144  
INTRODUCTION TO ART HISTORY (3CR)**

This historical study of art traces its development from prehistoric times to the 18th century. 3 hrs./wk. (HAR 1713)

**HUM 147  
MODERN ART HISTORY (3CR)**

In this advanced art history course, students will study 18th, 19th and 20th century American and European artists. 3 hrs./wk. (HAR 3878)

**HUM 298  
YUCATAN FIELD COURSE: MAYAN ART AND CULTURE OF MEXICO (3CR)**

This travel-for-credit course consists of pre-departure seminars emphasizing the arts and cultures of the ancient civilization of the Yucatan peninsula of Mexico. It also consists of travel in the field focusing on the architectural ruins, two- and three-dimensional art forms and the crafts of ancient inhabitants of the peninsula. Rituals associated with the primitive culture and the contrast of past and present Yucatan inhabitants also will be studied. 1 hr. lecture, 4 hrs. lab/wk. (HUM 4890)

## INFORMATION/ WORD PROCESSING

**IWP 121  
WORD PROCESSING APPLICATIONS I (3CR)**

*Prerequisite:* SEC 122

This is an introduction to the basic function of shared logic word processing equipment. 3 hrs. lecture, 2 hrs. lab/wk. (BWP 3467)

**IWP 131  
WORD PROCESSING CONCEPTS (3CR)**

This is an introduction to the terminology and procedures common to word processing systems in an organization. The operations, applications and administration of word processing will be discussed. 3 hrs. lecture/wk. (BWP 3468)

**IWP 132  
WORD PROCESSING APPLICATIONS II (3CR)**

*Prerequisite:* IWP 121

WORD PROCESSING APPLICATIONS II is designed to enhance the students' ability to perform basic functions — keyboarding, editing, storage and retrieving — and to introduce them to advanced functions on shared logic word processing equipment.

**IWP 211  
INFORMATION PROCESSING MANAGEMENT (3CR)**

*Prerequisite:* IWP 131

Advanced concepts for information/word processing management will be introduced. The course deals with a variety of concerns specific to the technical area of information word processing management. Topics include feasibility studies, equipment selection procedures, equipment installation, development of a center, ergonomics, personnel and training.

## INTERIOR MERCHANDISING

**ITMD 121  
INTERIOR DESIGN I (3CR)**

This basic course in interior design emphasizes the elements and principles of design, color and color theory and practical application of materials in today's home. 3 hrs./wk. (BIM 2564)

**ITMD 122  
INTERIOR DESIGN II (3CR)**

*Prerequisite:* ITMD 121

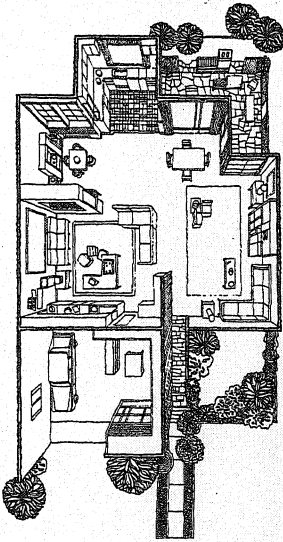
Students with basic interior design skills have the opportunity to increase and apply their knowledge in this class. 3 hrs./wk. (BIM 2565)

JCCC offers the first two years of many college baccalaureate degree programs.



You may get a JCCC Library card by showing the attendant at the Circulation Desk your student I.D. card.





You may withdraw from a class up to one week before the last day of the semester.

The JCCC campus is equipped with ramps, elevators and restrooms designed to accommodate wheelchairs.

**ITMD 132  
INTERIOR PRODUCTS (3CR)**

This is an in-depth study of the materials used in interiors. Areas covered include floors, wall and window coverings, and furniture. Students also become familiar with new trends and ideas in housing through field trips and observations. 3 hrs./wk. (BIM 2561)

**ITMD 231  
HISTORY OF FURNITURE DESIGN (3CR)**

This is a chronological study of furniture and interiors offering specific information on materials, construction, motifs, colors and other factors. Emphasis is on the influence historical styles have on today's homes. 3 hrs./wk. (BIM 3032)

**ITMD 232  
HOUSING AND EQUIPMENT (3CR)**

Consumerism, home safety, maintenance and energy conservation as applied to household products, appliances and equipment will be emphasized. Large and small appliances will be explored. New trends and ideas in housing equipment and materials will be observed through field trips and demonstrations. 3 hrs./wk. (BLH 2858)

**ITMD 272  
INTERIOR MERCHANDISING SEMINAR:  
PRACTICES AND PROCEDURES (2-3CR)**

*Prerequisite: ITMD 121*  
Students will work in approved training situations under the supervision of an instructor. They will study interior product business formations, contracts, papers and procedures necessary for effective business management. Class also includes discussion of job opportunities and business ethics. 2 hrs. class, 15 hrs. minimum on-the-job training by arrangement/wk. (BIM 6602)

**ITMD 274  
INTERIOR MERCHANDISING SEMINAR:  
BUDGET AND ESTIMATING (2-3CR)**

*Prerequisite: ITMD 121*  
Students will work in an approved training situation under the supervision of an instructor. Focus will be on residential and commercial jobs requiring specification writing and cost control with emphasis on accurately measuring materials and figuring actual costs. 2 hrs. class, a minimum of 15 hrs. on-the-job training/wk. (BIM 5021)

**INTERPRETER TRAINING**

**INTR 110  
CONVERSATIONAL SIGNED ENGLISH I (2CR)**

An introduction to signed English, this class will lead students toward the development of basic conversational skills. 4 hrs. lab/wk.

**INTR 111  
CONVERSATIONAL SIGNED ENGLISH II (2CR)**

*Prerequisite: INTR 110*  
This course offers a continued development of signed English skills, leading toward the development of conversational skills. 4 hrs. lab/wk.

**INTR 115  
CONVERSATIONAL ASL I (2CR)**

This is an introduction to American Sign Language, leading toward the development of basic conversational skills. 4 hrs. lab/wk.

**INTR 116  
CONVERSATIONAL ASL II (2CR)**

*Prerequisite: INTR 115*  
This is an introduction to American Sign Language leading to the development of intermediate conversational skills. 4 hrs. lab/wk.

**INTR 120  
NON-VERBAL COMMUNICATION AS A  
SIGN LANGUAGE BASE (3CR)**

This class consists of a sequenced series of readiness activities designed to help the student develop skills in visual acuity and visual discrimination in preparation for learning ASL. 3 hrs./wk. (AIT 4686)

**INTR 125  
ELEMENTARY AMERICAN  
SIGN LANGUAGE (ASL) (8CR)**

This class will focus on the development of beginning communication skills. Comprehension skills and linguistic features of the language taught in context will be emphasized. 5 hrs. lecture, 6 hrs. lab/wk. (AIT 4687)

**INTR 130  
ORIENTATION TO INTERPRETING (3CR)**

In this overview of interpreting as an occupation, topics include interpersonal skills, professional ethics, parameters of responsibilities of the interpreter, community resources and legal ramifications. 3 hrs./wk. (AIT 4691)

**INTR 132  
INTERMEDIATE AMERICAN  
SIGN LANGUAGE (ASL) (7CR)**

*Prerequisite: INTER 125*  
Students will work on developing intermediate communication skills, concentrating on comprehension and production skills. Linguistic and cultural features will be presented in the context of language learning experiences. 5 hrs. lecture, 4 hrs. lab/wk. (AIT 4688)

**INTR 135  
THEORY OF AMERICAN  
SIGN LANGUAGE (3CR)**

*Prerequisite: INTR 132*  
Students will examine the structural and grammatical principles of ASL in this introduction to linguistic and semiotic problems of equivalency in English and ASL. 3 hrs./wk. (AIT 4698)

**INTR 140  
ADVANCED AMERICAN  
SIGN LANGUAGE I (5CR)**

*Prerequisite: INTR 132*

Students will continue to develop ASL skills in this class. Emphasis will be on comprehension and production skills. Linguistic and cultural features will be presented in the context of language learning experiences. 3 hrs. lecture, 4 hrs. lab/wk. (AIT 4689)

**INTR 142  
FINGERSPELLING I (3CR)**

Students will work on developing beginning expressive and receptive fingerspelling skills based on word and phrase recognition principles. 2 hrs. lecture, 3 hrs. lab/wk. (AIT 4690)

**INTR 145  
DEAF CULTURE (3CR)**

Students will compare middle class American values, beliefs and institutions with those of the deaf community in the United States. 3 hrs./wk. (AIT 5526)

**INTR 150  
INTERPRETING TECHNIQUES (3CR)**

Students with advanced ASL skills can upgrade their interpreting/transliterating skills in this class. Emphasis will be on analysis of English sentences and transposition required for ASL interpretation. 3 hrs./wk. (AIT 4705)

**INTR 225  
INTERPRETERS AND PHYSICAL  
"BURN OUT" (1CR)**

Discussion will focus on the mental and physical stress interpreting brings about and on therapeutic exercises for preventing negative physical effects. 2 hrs./wk. (AIT 4703)

**INTR 230  
ADVANCED AMERICAN  
SIGN LANGUAGE II (3CR)**

*Prerequisite: INTR 140*

Students will continue to develop ASL skills at an advanced level. Emphasis will be on comprehension and production skills. Linguistic and cultural features will be presented in the context of language learning experiences. 3 hrs./wk. (AIT 4694)

**INTR 240  
ADVANCED AMERICAN  
SIGN LANGUAGE III (1CR)**

*Prerequisite: INTR 230*

Students will continue to work on developing ASL skills. Emphasis will be on comprehension and production skills. Linguistic and cultural features will be presented in the context of language learning experiences. 2 hrs. lab/wk. (AIT 4699)

**INTR 242  
FINGERSPELLING II (1CR)**

*Prerequisite: INTR 142*

This course encourages students to continue developing expressive and receptive fingerspelling skills based on word and phrase recognition principles. 1 hr. lecture, 1 hr. lab/wk. (AIT 4695)



**INTR 246  
ENGLISH EQUIVALENTS FOR ASL (3CR)**

*Prerequisite: INTR 140 or permission of division director and proficiency in ASL*

Students will study the many English equivalents for ASL discourse, enhancing the written English skills of deaf students and interpreting skills of hearing students. 3 hrs./wk. (AIT 2330)

**INTR 250  
INTERPRETING I (6CR)**

*Prerequisites: INTR 140 and INTR 130*

In this introduction to interpreting principles, emphasis is on English-to-ASL and ASL-to-English skills. Students will take part in sequential drills and apply these skills in class. 6 hrs./wk. (AIT 5164)

**INTR 255  
INTERPRETING II (3CR)**

*Prerequisite: INTR 250*

This is an advanced course concentrating on voice and expressive ASL interpreting skills. Students will have the opportunity to use these skills as they role-play employment situations. 3 hrs./wk. (AIT 5171).

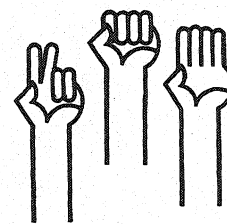
**INTR 261  
SPECIAL TOPICS (1-8CR)**

*Prerequisite: Depends on topics*

Current trends and topics in interpreting is the focus of this course. Topics may include medical/mental health interpreting, deaf-blind interpreting, oral interpreting, educational interpreting and trends in the field. These topics will be offered on an "as needed" basis and the course may be repeated for up to eight credits. Lecture-lab hrs. vary from 1-4 hrs. depending on topic and number of lecture-lab hrs. needed. (AIT 2334)

See the back of this catalog for a list of faculty and staff.

The Campus Activities Board sponsors popular movies captioned for the hearing impaired.



**INTR 281  
INTERPRETING PRACTICUM (3CR)**

*Corequisite: INTR 255*

Students will observe and interpret at assigned places as well as discuss current literature in the field. The field experience work totals 96 hours per semester. 6 hrs. class-field work/wk. (AIT 5172)

**INTR 291  
INDEPENDENT STUDY:  
INTERPRETER TRAINING (1-3CR)**

*Prerequisite: Approval of division director*

Students will take part in directed independent study focusing on areas relating to special interpreting situations, forms of communication and current issues in the hearing impaired field. 1-3 hrs./wk. Course may be repeated. No more than 6 hrs. credit may be accrued. (AIT 4452)

## **JOURNALISM**

**JOUR 120  
MASS MEDIA AND SOCIETY (3CR)**

Mass communication — its content, structure, persuasive influence, responsibilities and problems — will be explored. Focus will be on television, radio, newspapers, magazines, public relations and advertising. 3 hrs./wk. (CJO 4161)

**JOUR 122  
NEWS REPORTING I (3CR)**

*Prerequisite: Basic typing skills or concurrent enrollment in SEC 121*

Students will concentrate on newswriting, news style and interviewing in this class. They will also gain practical experience by writing stories for the campus newspaper. 3 hrs./wk. (CJO 3901)

**JOUR 125  
FUNDAMENTALS OF ADVERTISING (3CR)**

How advertising affects today's businesses and consumers and the forms of advertising and media involved will be the focus of this class. 3 hrs./wk. (CJO 2136)

**JOUR 127  
INTRODUCTION TO BROADCASTING (3CR)**

Radio and television broadcasting will be introduced in this class. Among the areas students will examine are program formats, personnel, equipment and FCC regulations. 3 hrs./wk. (CJO 4402)

**JOUR 222  
NEWS REPORTING II (3CR)**

*Prerequisite: SEC 121 or equivalent and JOURN 122*

This class includes an examination of how news is gathered, written and published and a study of specialized reporting. Students will gain practical experience as they write stories for the campus newspaper. 3 hrs./wk. (CJO 3902)

**JOUR 225  
ADVERTISING COPYWRITING (3CR)**

Students will study the principles of copywriting and put them to practice by developing copy for a variety of products. Each student will prepare an advertising campaign. 3 hrs./wk. (CJO 7139)

**JOUR 271  
JOURNALISM FIELD STUDY I (1-3CR)**

*Prerequisite: Approval of division director*

Under staff supervision, the student will work at an approved training center. Emphasis will be on applying writing or production techniques in such fields as newswriting, advertising and television. 2 hrs. class, a minimum of 5-15 hrs. on-the-job training by arrangement/wk. (CJO 5266)

## **LEARNING CENTER**

**LC 100  
STUDY SKILLS (1CR)**

Students will take diagnostic tests to determine their appropriate starting level. Students will use books and programmed materials as they work on these areas: previewing academic reading, notetaking while reading, listening and taking class notes, preparing for and taking examinations, planning time and selecting a study area. By arrangement. (CLC 4611)

**LC 101  
STUDY SKILLS MINI COURSE (1CR)**

These small group sessions will focus on test-taking skills; taking notes; using a textbook; critical reading and memory recall; effective listening and classroom strategies; and library and counseling services. Format includes reading, discussion and practice exercises. 3 hrs./wk. for 5 wks. (CLC 4608)

**LC 104  
READING COMPREHENSION (1CR)**

This is a self-paced, individualized course for improving comprehension skills. Instruction is through sequenced materials emphasizing survey techniques and vocabulary development. By arrangement. (CLC 4614)

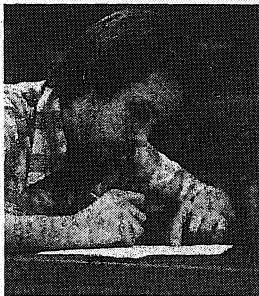
**LC 105  
READING RATE (1CR)**

Students will work on increasing their reading rate in this class. They can select their own materials to use with the reading pacer. They also will work on skimming and scanning techniques. By arrangement. (CLC 4615)

**LC 106  
VOCABULARY DEVELOPMENT (1CR)**

Students will concentrate on techniques for unlocking meaning through context clues and a familiarity with roots, prefixes and suffixes. By arrangement. (CLC 4616)

The **CAMPUS LEDGER** is JCCC's award-winning campus newspaper.



Members of the **CAMPUS LEDGER** staff are paid for their work. To apply contact the Student Activities Office.



**LC 107****SPELLING IMPROVEMENT (1CR)**

Students will work on correcting spelling errors using kits or programmed texts. By arrangement. (CLC 4613)

**LC 108****ENGLISH GRAMMAR REVIEW (1CR)**

Students will take diagnostic tests to determine at which level they should begin work. They will use programmed materials dealing with parts of speech, sentence structure, verb forms, modifiers, pronoun choices, sentence fragments and run-ons, punctuation and capitalization. By arrangement. (CLC 4612)

**LC 112****BASIC MATH REVIEW (1CR)**

Students will take diagnostic tests to determine their appropriate starting level. Then using programmed materials, students will review addition, subtraction, multiplication, division, fractions, decimals and percents. By arrangement. (CLC 4617)

**LC 113****ALGEBRA PREPARATION (1CR)**

Students will take diagnostic tests to determine their appropriate starting level. Then using programmed materials, students will deal with sets, counting numbers, integers, rational numbers, equations involving two variables, polynomials, factoring, quadratics and absolutes, graphing, exponents and logarithms. By arrangement. (CLC 4618)

**LC 114****CHEMISTRY PREPARATION (1CR)**

Students will take diagnostic tests to determine their appropriate starting level. Then using programmed materials, students will cover a variety of topics including valences, chemical equations, solubility, ionic structures and complexes, the metric system, the atomic theory, thermochemistry, kinetic theory, nuclear structure and chemical equilibrium. By arrangement. (CLC 4619)

**LC 115****INTRODUCTION TO COLLEGE (1CR)**

Students will focus on becoming more aware of their personal values, their life plans and their career plans. Topics include learning styles, techniques of time management, test taking, study skills and available college support services. 2 hrs. lecture/wk.

**LC 120****INDIVIDUALIZED STUDY (1CR)**

(CLC 4622)

**LC 121****INDIVIDUALIZED STUDY (2CR)**

(CLC 4621)

**LC 122****INDIVIDUALIZED STUDY (3CR)**

Students will work at their own pace and according to their individual ability in this class. They will use self-motivating materials and projects to study grammar,

spelling, vocabulary, reading rate/comprehension, study skills, mathematics, algebra and chemistry. (CLC 4620)

**LC 125****COLLEGE READING IMPROVEMENT I (3CR)**

*Prerequisite: Appropriate assessment score*

COLLEGE READING IMPROVEMENT I is a basic level reading course which focuses on the development of a sight vocabulary, techniques of word recognition (phonetic and structural analysis and context clues), the ability to deal with words of multiple meaning and literal comprehension and recall. 3 hrs./wk. (CLC 5373)

**LC 126****COLLEGE READING IMPROVEMENT II (3CR)**

*Prerequisite: LC 125 or appropriate assessment score*

In this intermediate level class, students will review skills taught in COLLEGE READING IMPROVEMENT I. However, the major focus will be on analytical reading skills, study techniques, flexible reading rate and vocabulary enrichment. 3 hrs./wk. (CLC5374)

**LC 127****COLLEGE READING IMPROVEMENT III (2CR)**

*Prerequisite: LC 126 or appropriate assessment score*

This advanced level course includes a review of the skills taught in COLLEGE READING IMPROVEMENT II with an additional focus on critical reading skills along with vocabulary development, memory techniques, rate improvement and analytical skills. 2 hrs./wk. (CLC 5375)

**LC 145****WRITING STRATEGIES (5CR)**

This course assists students in writing sentences and paragraphs. Emphasis is on self-monitoring of errors in written work. It is designed to develop confidence and competence for the reluctant writer who has not been successful in traditional English/composition classes. 5 hrs. lecture/wk.

**LC 150****JOB SEARCH SKILLS (1CR)**

Job-hunting techniques will be explored in this class. Class consists of lecture, assignments and role playing. In class, students will develop a resume', complete job applications and practice interviewing. 1 hr./wk. (CLC 1300)

**MANUFACTURING TECHNOLOGY****MFTG 121****MANUFACTURING PROCESSES AND TESTING (3CR)**

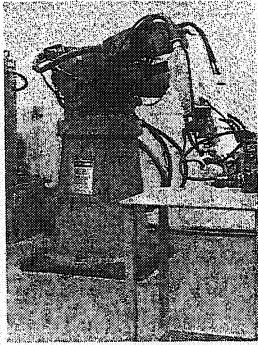
This is an overview of manufacturing materials, processes and testing procedures used in industry. Students will examine the capabilities of press shop, machine tool, general fabrication, welding processes, robotics, cut-off equipment and other manufacturing processes and equipment. Destructive and non-destructive testing methods will be demonstrated. 3 hrs. lecture-demonstration/wk. (TMF 8033)



*If your car won't start, you may contact the Security Office, first floor, GEB, for a jump start.*

*The Learning Center offers self-paced instruction, small classes and tutoring.*

You may be granted credit for military experiences. Check with the Testing/Assessment Center for details.



**MFTG 122  
ROBOTICS (2CR)**

The operation and maintenance of industrial robots will be examined. Topics include controlled path motion, control panel and teach pendant operations, teaching functions, commands, hydraulics, control modules, interfacing and alignments. 2 hrs. lecture-independent study/wk. (TMF 3462)

**MFTG 124  
ROBOTIC APPLICATIONS (2CR)**

*Prerequisite: MFTG 122*

Students will actually operate industrial welding robots in this class. They will use industrial welding robots, positioning table, welding equipment and appropriate interfacing to program and weld actual parts. 4 hrs. lecture-lab/wk. (TMF 3463)

**MFTG 126  
MACHINE TOOL PROCESSES I (3CR)**

The principles and practices of machining and the set-up and operation of machines will be explained. In the lab students will use lathes, mills, drills, cut-off and other types of equipment. 1 hr. lecture, 6 hrs. lab/wk. (TMF 8034)

**MFTG 128  
MACHINE TOOL PROCESSES II (3CR)**

*Prerequisite: MFTG 126*

The set-up and operation of machine tools will be addressed in this class. Students will study lathes, mills, drills, cut-off and other types of equipment and will be allowed to specialize in one or more machines. 1 hr. lecture, 6 hrs. lab/wk. (TMF 8035)

**MFTG 132  
METALLURGY (1CR)**

This basic metallurgy course deals with iron and steel, properties of metals, types of classifications, heat treatment procedures and common processes of steel. 1 hr./wk. (TMF 8036)

**MFTG 135  
TESTING AND INSPECTION (3CR)**

In this course on the use of materials in technology, students will study materials, how they are used and how they perform under different load and environmental conditions. They also will study the size and shape of good designs; precision tool measurement; safety practices; and testing methods and procedures for various materials. 1 hr. lecture, 6 hrs. lab/wk. (TMF 8016)

**MFTG 271  
MANUFACTURING TECHNOLOGY  
COOPERATIVE EDUCATION I (2-9CR)**

*Prerequisites: 10 credit hours of Manufacturing Technology courses and division director approval*

This program provides advanced students with on-the-job training under the supervision of industrial professionals. The work experience will be developed cooperatively among area employers, college staff and the student to provide a variety of actual job

experiences directly related to the student's personal career goals. 1 hr. lecture, 6-27 hrs. lab/wk. (TMF 6826)

**MFTG 272  
MANUFACTURING TECHNOLOGY  
COOPERATIVE EDUCATION II (2-9CR)**

*Prerequisite: MFTG 271 and division director approval.*

This program provides advanced students with on-the-job training under the supervision of industrial professionals. The work experience will be developed cooperatively among area employers, college staff and the student to provide a variety of actual job experiences directly related to the student's personal career goals. 1 hr. lecture, 6-27 hrs. lab/wk.

**MFTG 273  
MANUFACTURING TECHNOLOGY  
COOPERATIVE EDUCATION III (2-9CR)**

*Prerequisite: MFTG 272 and division director approval.*

This program provides advanced students with on-the-job training under the supervision of industrial professionals. The work experience will be developed cooperatively among area employers, college staff and the student to provide a variety of actual job experiences directly related to the student's personal career goals. 1 hr. lecture, 6-27 hrs. lab/wk.

**MARKETING MANAGEMENT**

**MKT 121  
RETAILING (3CR)**

The organization and operation of a retail store — including location, layout, retail buying, human relations, employee supervision, pricing and merchandising — will be covered. 3 hrs./wk. (BMM 1206)

**MKT 122  
RETAIL ADVERTISING AND DISPLAY (3CR)**

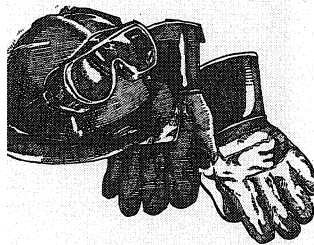
In this class on advertising and display techniques, emphasis will be on media selection and use, copy-writing, ad layout and illustration, showcard writing, display techniques, sales promotion, budgeting and scheduling. 3 hrs./wk. (BMM 1303)

**MKT 133  
SALESMANSHIP (3CR)**

Students will prepare presentations in specialty, wholesale and industrial areas of selling. Class includes projects, case problems and speakers. 3 hrs./wk. (BMM 5206)

**MKT 134  
CREATIVE RETAIL SELLING (3CR)**

Students will analyze the techniques of the sale in this class. Case problems will highlight such areas as sales demonstrations and presentations, handling objections and customer complaints, suggestive selling and closing the sale. 3 hrs./wk. (BMM 2407)



JCCC offers a two-year program in Manufacturing Technology which provides instruction in metal machine, robotics, CAD/CAM and electronics.

**MKT 221  
SALES MANAGEMENT (3CR)**

*Prerequisite: MKT 134 or MKT 133*

Managing the sales force is the topic of this class. Topics include recruitment and selection of salespeople, training, compensation and motivation. Sales forecasting, sales planning and ethics in different fields will be reviewed. 3 hrs./wk. (BMM 2370)

**MKT 271  
MARKETING AND MANAGEMENT SEMINAR:  
ORGANIZATION AND OPERATION (2-3CR)**

*Prerequisite: Admission to the Marketing and Management Program*

Students will work under supervision in an approved business where they will prepare a series of training reports based on employers' operation policies and internal organization and structure. 2 hrs. class, a minimum of 15 hrs. on-the-job training by arrangement/wk. (BMM 3877)

**MKT 272  
MARKETING AND MANAGEMENT SEMINAR:  
MANAGEMENT DECISION MAKING (2-3CR)**

*Prerequisite: Admission to the Marketing and Management Program*

Students will work under supervision in an approved business concentrating on making managerial decisions regarding human relations and merchandising problems. They also will take part in sales and training meetings in the areas of marketing and management. 2 hrs. class, a minimum of 15 hrs. on-the-job training by arrangement/wk. Fall. (BMM 3874)

**MKT 273  
MARKETING AND MANAGEMENT SEMINAR:  
MARKETING RESEARCH (2-3CR)**

*Prerequisite: Admission to the Marketing and Management Program*

Students will work under supervision in an approved business where they will do market research for potential new businesses, concentrating on finding, identifying and determining the needs of individuals and organizations. 2 hrs. class, a minimum of 15 hrs. on-the-job training by arrangement/wk. Spring. (BMM 3875)

**MKT 274  
MARKETING AND MANAGEMENT SEMINAR:  
MANAGEMENT (2-3CR)**

*Prerequisite: Admission to the Marketing and Management Program*

Students will work under supervision in an approved business where they will prepare an advertising campaign related to the student's preferred career area. They also will apply sales management concepts to personal selling and mass sales promotion. 2 hrs. class, a minimum of 15 hrs. on-the-job training by arrangement/wk. Spring. (BMM 3873)

## MATHEMATICS

**MATH 111  
FUNDAMENTALS OF MATH (3CR)**

This is a review of fractions, decimals and whole numbers, numeration, percent, dimensions and linear equations. 3 hrs./wk. (MTH 2122)

**MATH 115  
INTRODUCTION TO ALGEBRA (3CR)**

*Prerequisite: Appropriate score on math assessment test*

The class will cover fundamental algebraic operations, fractions, first- and second- degree equations, graphs, exponents and radicals. 3 hrs./wk. (MTH 7246)

**MATH 116  
INTERMEDIATE ALGEBRA (3CR)**

*Prerequisite: MATH 115 or appropriate score on math assessment test*

Polynomials, rational expressions, radicals, equations and inequalities, graphing, relations, functions and systems of equations will be covered. 3 hrs./wk. (MTH 3001)

**MATH 120  
BUSINESS MATH (3CR)**

*Prerequisite: MATH 111 or appropriate score on math assessment test*

A course in basic business mathematics, BUSINESS MATH deals with decimals, percentages and everyday problems dealing with the math of business. 3 hrs./wk. (MTH 4298)

**MATH 122  
MATHEMATICS IN OUR CULTURE (3CR)**

*Prerequisite: MATH 111 or appropriate score on math assessment test*

This is a course about the extent, power and history of many interesting areas of mathematics. Topics include mathematical reasoning and recreation, calculator activities, computer literacy, mathematics in art and music, probability, statistics and topology. 3 hrs. lecture/wk. (MTH 1842)

**MATH 125  
MATH FOR MODERN LIVING (3CR)**

*Prerequisite: MATH 111 or appropriate score on math assessment test*

Topics include deductive reasoning, sets, equation solving, measurement, number sequences, linear programming, computers, calculators, probability and statistics, and graphing. 3 hrs./wk. (30 30-minute modules when offered on cable TV). (MTH 4419)



For information about the transferability of courses, contact the Counseling Center.



The Campus Activities Board sponsors movies and film fests each semester for JCCC students and the community.

You may take the math assessment test in the Testing/Assessment Center. It takes about 20-40 minutes to complete.

**MATH 127  
MODERNIZED METRIC SYSTEM (1CR)**

The international metric system is the focus of this class. Topics include length, mass, volume, temperature and appropriate prefixes. 1 hr./wk. (MTH 3609)

**MATH 133  
TECHNICAL MATHEMATICS I (3CR)**

*Prerequisite: MATH 111 or appropriate score on math assessment test*

Students will explore International Standard mensuration, percent, proportion, linear equations and graphs, formulation, exponents, radicals, scientific notation, basic algebra and geometry. Emphasis is on how these concepts can be applied in industry. 3 hrs./wk. (MTH 5722)

**MATH 134  
TECHNICAL MATHEMATICS II (5CR)**

*Prerequisite: MATH 133 or equivalent*

This is a review of plane and solid geometry quantification; quadratic equations and graphs; trigonometric functions and laws; vectors and complex numbers; and exponential and logarithmic equations and graphs. 5 hrs./wk. (MTH 5387)

**MATH 143  
MATH FOR ELECTRONICS I (5CR)**

*Prerequisite: MATH 111 or appropriate score on math assessment test*

The role algebra plays in understanding and solving problems with electronic circuits is the focus of this course. 5 hrs./wk. (MTH 9000)

**MATH 144  
MATH FOR ELECTRONICS II (4CR)**

*Prerequisite: MATH 143 or equivalent*

Trigonometry will be applied to AC circuits, computer number systems and digital math concepts. 5 hrs./wk. (MTH 9001)

**MATH 153  
COMPUTER MATHEMATICS I (4CR)**

*Prerequisite: MATH 116*

This is an introduction to problem-solving using computers, especially microcomputers. Students will use basic programming skills to set up problems. The class will introduce numerical algorithms, errors, roots of equations, interpolation, systems of equations and linear programming. 3 hrs./wk. Lab by arrangement (MTH 6245)

**MATH 154  
COMPUTER MATHEMATICS II (4CR)**

*Prerequisite: MATH 153*

This is the second course in a two-semester series on computer science. Students will discover, with the help of the computer, facts and concepts in algebra, number theory, finite math, calculus and other special topics. 3 hrs./wk. Lab by arrangement (MTH 6246)

**MATH 160  
ALGEBRA (5CR)**

*Prerequisite: MATH 116 or appropriate score on math assessment test*

There will be an extensive review of fundamental algebraic operations in this class. Also included will be a study of polynomial, rational, exponential and logarithmic functions; systems of equations; matrices and determinants; sequences and series; and the binomial theorem. 5 hrs./wk. (MTH 6079)

**MATH 171  
COLLEGE ALGEBRA (3CR)**

*Prerequisite: MATH 116 or two years of high school algebra or appropriate score on math assessment test*

This is a study of polynomial, rational, exponential and logarithmic functions; systems of equations; conics; determinants; sequences and series; combinations; and binomial theorem. 3 hrs./wk. (MTH 3427)

**MATH 172  
TRIGONOMETRY (3CR)**

*Prerequisite: MATH 153, 154 or 160 or Math 171*

Students will study trigonometric functions, identities, graphs, equations, inverse trigonometric functions, polar coordinates, complex numbers and applications. 3 hrs./wk. (MTH 2594)

**MATH 181  
STATISTICS (3CR)**

*Prerequisite: MATH 116 or appropriate score on math assessment test*

Students will review and apply such concepts as descriptive statistics, probability, sampling, distributions, estimation, hypothesis testing, regression and correlation. 3 hrs./wk. (MTH 2084)

**MATH 190  
GEOMETRY (2CR)**

*Prerequisite or corequisite: MATH 115 or appropriate score on math assessment test*

This intuitive approach to geometry is for students who did not take geometry in high school. Topics include lines, polygons, area, volume, circles, similarity, congruence and coordinate geometry. 2 hrs./wk. (MTH 3000)

**MATH 231  
CALCULUS I (3CR)**

*Prerequisites: MATH 171 or appropriate score on math assessment test*

This is the first course in a two-semester series on calculus. It will cover differentiation of algebraic, exponential and logarithmic functions used in business, biology and the social sciences. 3 hrs./wk. (MTH 6463)

**MATH 232  
CALCULUS II (3 CR)**

*Prerequisites: MATH 231 and MATH 172 or concurrent enrollment in MATH 172*

This is the second course in a two-semester series on



calculus. It will cover techniques of integration, differentiation and integration of trigonometric functions, differential equations and functions of several variables. This information can be applied to business, statistics, biology and the social sciences. 3 hrs./wk. (MTH 5329)

**MATH 241  
ANALYTIC GEOMETRY - CALCULUS I (5CR)**

*Corequisite: MTH 172*

This is the first course in a three-semester series on analytic geometry and calculus. Students will study and apply elements of plane analytic geometry and the differentiation and integration of algebraic functions. 5 hrs./wk. (MTH 3268)

**MATH 242  
ANALYTIC GEOMETRY - CALCULUS II (5CR)**

*Prerequisite: MATH 241 or appropriate score on math assessment test*

This is the second in a three-semester series on analytic geometry and calculus. Topics include Riemann integral equations, differentiation and integration of transcendental functions, techniques of integration, polar coordinates, and applications. 5 hrs./wk. (MTH 4313)

**MATH 243  
ANALYTIC GEOMETRY - CALCULUS III (5CR)**

*Prerequisite: MATH 242 or appropriate score on math assessment test*

This is the third course in a three-semester series on analytic geometry and calculus. Topics include solid analytic geometry, vectors in space, infinite series, partial differentiation, multiple integration infinite series and limits. 5 hrs./wk. (MTH 6357)

**MATH 244  
DIFFERENTIAL EQUATIONS (3CR)**

*Prerequisite: MATH 243 or appropriate score on math assessment test*

DIFFERENTIAL EQUATIONS covers standard types of ordinary equations, second and higher order linear equations, systems of linear equations, solutions by series, the Laplace transform and applications. 3 hrs./wk. Spring. (MTH 3675)

**MATH 261  
COMPUTER-ASSISTED LEARNING:  
BASIC (1-3CR)**

The computer will progressively instruct the student in BASIC using a conversational approach. Apple's sound and graphics capabilities also will be included. Emphasis will be on how BASIC commands and statements work together to form programs. 1-3 hrs./wk. (MTH 8400)

**MATH 281  
HONORS PROJECT IN MATHEMATICS (1-2CR)**

*Prerequisite: Approval of division director*

Students will work on special interest projects approved and monitored by an instructor and tailored

to the abilities and interests of the student. Projects will involve computer work. 2-4 hrs. lab/wk. (MTH 2009)

## **MEDICAL LABORATORY TECHNICIAN**

**KMLT 100  
INTRODUCTION TO THE CLINICAL LAB (1CR)**

*Prerequisite: High school algebra*

Students will study the organization of the lab and career opportunities in the field. They also will examine and use laboratory calculations. 1 hr./wk. (NLT 9760)

**KMLT 101  
FUNDAMENTAL TECHNIQUES  
AND PROCEDURES (3CR)**

Students will study and perform fundamental procedures in the lab, examine pathologic disease states and apply quality control principles to clinical procedures. 4 hrs./wk. (NLT 9761)

**KMLT 102  
CLINICAL CHEMISTRY (4CR)**

The student will review and integrate specific pathologic conditions with chemical procedures. 3 hrs./wk. (NLT 9764)

**KMLT 103  
HEMATOLOGY (3CR)**

*Prerequisite: Completion of first year of the Medical Laboratory Technology Program or approval of division director*

This course involves a thorough study of the formed blood cell elements and their relation to specific pathologic processes. The course also will cover hemostasis and coagulation. (NLT 9765)

**KMLT 104  
DEPARTMENTAL SEMINAR (3CR)**

Students will study in class and in a lab pathological conditions of the kidney and urinary tract. The course also includes a review of specialized areas of laboratory medicine. 3 hrs./wk. (NLT 9767)

**KMLT 105  
APPLIED IMMUNOLOGY (3CR)**

*Prerequisite: Completion of the first year of Medical Laboratory Technology Program or permission of division director*

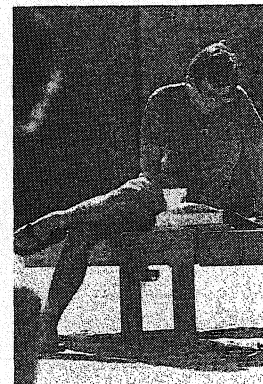
The immunological and immuno-hematological functions in vivo and in vitro conditions will be the focus of this class. 3 hrs./wk. (NLT 9768)

**KMLT 106  
DIAGNOSTIC MICROBIOLOGY (3CR)**

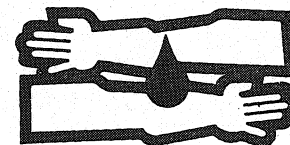
*Prerequisite: KMLT 100, KMLT 101, KMLT 102*

This course involves a thorough study of bacteria and the role bacteria play in various diseases. 3 hrs./wk. (NLT 9762)

You must file a written notice of intent to graduate in the Admissions Office by Nov. 1 for fall graduation, April 1 for spring graduation, July 15 for summer graduation.



The Career Planning and Placement Center is located on the first floor of GEB, down the hall from Admissions.



**KMLT 107  
DIAGNOSTIC PARASITOLOGY  
AND MYCOLOGY (1CR)**

*Prerequisite: KMLT 100, KMLT 101, KMLT 102,  
BIOL 230, BIOL 231*

Students will study pathological parasitic and mycotic infections in humans, and how they relate to specific diseases and treatment. 1 hr./wk. (NLT 9759)

**KMLT 203  
CLINICAL PRACTICUM I (5CR)**

*Prerequisite: KMLT 100, KMLT 101, KMLT 102*

Under supervision, students will observe, practice and perform laboratory procedures in a clinical setting. The student will be expected to apply classroom knowledge to clinical procedures. 35 hrs./wk. (NLT 9763)

**KMLT 205  
CLINICAL PRACTICUM II (10CR)**

*Prerequisite: KMLT 203*

Students will observe, practice and apply both manual and automated techniques of hematology and clinical chemistry. 35 hrs./wk. (NLT 9766)

**KMLT 206  
CLINICAL PRACTICUM III (10CR)**

*Prerequisite: KMLT 205*

Students will observe, practice and apply techniques of immunology, urinalysis and other specialty areas of the clinical laboratory. 35 hrs./wk. (NLT 9769)

**MEDICAL RECORDS  
TECHNOLOGY**

**MRT 110  
MEDICAL TERMINOLOGY I (2CR)**

In this self-instructional approach, students will use a handbook and tapes to build a medical vocabulary. Definition, spelling and pronunciation will be stressed. Students will select systems from six areas: respiratory, circulatory, digestive, musculoskeletal, genitourinary and nervous systems. By arrangement. (NS 5381)

**MRT 112  
MEDICAL TERMINOLOGY II (1CR)**

*Prerequisite: MRT 110*

In this continuation of Medical Technology I, students may choose any two areas not previously studied. By arrangement. (NS 6476)

**MRT 114  
MEDICAL TERMINOLOGY III (1CR)**

*Prerequisite: MRT 112*

In this continuation of Medical Technology II, students may choose any two areas not previously studied. By arrangement (NS 4165)

**MRT 116  
MEDICAL TERMINOLOGY IV (3CR)**

*Prerequisite: BIOL 144 and MRT 120 and no grade below a "C" in prerequisite courses*

This is a review of anatomical roots, prefixes and suffixes; descriptive terms; laboratory tests; diseases; and operations for each system of the body. 3 hrs./wk. (NS 2686)

**MRT 120  
INTRODUCTION TO THE  
MEDICAL RECORD PROFESSION (2CR)**

*Prerequisite: Admission to the Medical Record Technology Program*

This orientation to the medical record profession addresses such topics as the language of medicine, ethics, the history of medicine, hospital and medical staff organization and the function and roles of health professionals. 2 hrs./wk. (NMR 1135)

**MRT 124  
HEALTH RECORD SYSTEMS ANALYSIS AND  
CONTROLS (3CR)**

*Prerequisite or corequisite: MRT 120 or approval of division director*

This is an in-depth study of the storage, retrieval and control of various medical record systems. It will explain the content, use and preservation of medical records. It also will explain accrediting, licensing and approval agencies' requirements for documentation and information systems. 4 hrs./wk. (NMR 2681)

**MRT 131  
HEALTH STATISTICS  
AND RESEARCH METHODS (2CR)**

*Prerequisite: MRT 120 or division director approval*

The uses and value of vital health statistics will be introduced. Also covered will be the collection and presentation of data from medical records and other sources. 3 hrs./wk. (NMR 2685)

**MRT 133  
SELECTED HEALTH RECORD SYSTEMS (2CR)**

*Prerequisites: MRT 120, MRT 124 and no grade below a "C"*

*Corequisites: MRT 271, MRT 131*

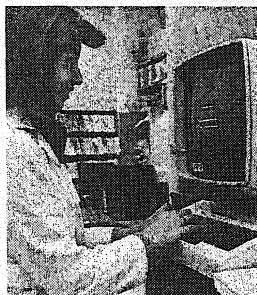
An overview of alternative health care programs, this course emphasizes record keeping systems; requirements of accrediting, approving and certifying agencies; and specialized health information registries. 2 hrs./wk.

**MRT 137  
MEDICAL TRANSCRIPTION (3CR)**

*Prerequisites: 40 wpm proficiency for Medical Records program, 65 wpm proficiency for Medical Transcript program*

An introduction to machine transcription of medical reports, this course provides a study of medical terminology in conjunction with machine transcription. 5 hrs./wk. (BSC 4715)

*If you are a veteran, a counselor must approve all courses and programs before you register.*



*Some of the Medical Records Technology Program courses are held at Baptist Medical Center, in Kansas City, Mo.*

**MRT 220**  
**CLASSIFICATIONS, NOMENCLATURES,**  
**INDICES AND REGISTRIES (2CR)**

*Prerequisite:* NMR 124, MRT 116 and BIOL 144 and no grade below a "C" in prerequisite courses

This is a study of the various nomenclatures of diseases and operations, indexes and registers with specific emphasis on ICD-9-CM classification system. 4 hrs./wk. (NMR 2682)

**MRT 224**  
**QUALITY ASSURANCE (2CR)**

*Prerequisites:* MRT 124, MRT 131, BIOL 144, MRT 271, MRT 133 and no grade below a "C"  
*Corequisite:* MRT 220

This introduction to the quality assurance concept includes information on federal, state and local regulations as they apply to quality assurance in health care. Students will study and apply activities and assessment techniques. 3 hrs./wk. (NMR 2683)

**MRT 231**  
**LEGAL ASPECTS OF MEDICAL RECORDS (2CR)**

*Prerequisite:* MRT 133 with no grade below a "C"

This is an investigation of federal and state judicial opinions, statutes, rules and regulations regarding medical records. The disclosure of confidential information also will be examined. 2 hrs./wk. (NMR 2684)

**MRT 271**  
**MEDICAL TRANSCRIPTION PRACTICUM (4CR)**

*Prerequisites:* MRT 137, MRT 116, MRT 124

In a supervised work situation students will use transcribing equipment to type medical reports dictated by physicians. By arrangement. (NMT 3413)

**MRT 281**  
**DIRECTED PRACTICE I (3CR)**

*Prerequisite:* MRT 124, BIOL 144 and with no grade below a "C" in prerequisite courses  
*Corequisites:* MRT 131, MRT 116

Students will work in the program laboratory and in actual medical records departments, developing their skills in the areas of numbering and filing systems, health data collections and presentations, medical record processing and patient registration. By arrangement. (NMR 7111)

**MRT 282**  
**DIRECTED PRACTICE II (4CR)**

*Prerequisites:* MRT 281, MRT 133 and no grade below a "C" in prerequisite courses  
*Corequisite:* MRT 220

Students will gain experience in the areas of coding and abstracting health information, tumor registry, medical transcription and completion policies. By arrangement. (NMR 1325)

**MRT 283**  
**DIRECTED PRACTICE III (5CR)**

*Prerequisites:* MRT 272, MRT 137, BUS 243, DP 124

*Corequisites:* MRT 231, BIOL 210

Students will work in the program laboratory and in medical record departments, applying classroom theory. By arrangement. (NMR 3117)

## **MENTAL HEALTH TECHNOLOGY**

**MHT 125**  
**MENTAL HEALTH TECHNOLOGY I (4CR)**

*Prerequisite:* Admission to the Mental Health Technology Program

In a supervised practicum, students will assess normal body functioning; measure comfort, safety and hygiene; and observe and record. They also will concentrate on nutrition, pharmacology and life-saving measures. This course fulfills requirements for certification in first aid and cardiopulmonary resuscitation. 6 hrs./wk. (NMH 8881)

**MHT 130**  
**MENTAL HEALTH TECHNOLOGY II (6CR)**

*Prerequisite:* MHT 125

In this clinical practicum, students will study the patterns of behavior associated with mental illness. Students will have contact with young and adult psychiatric patients, the elderly, the mentally retarded and patients suffering from substance abuse. 11 hrs./wk. (NMH 2883)

**MHT 225**  
**MENTAL HEALTH TECHNOLOGY III (6CR)**

*Prerequisite:* MHT 130

MENTAL HEALTH TECHNOLOGY III is an in-depth study of patterns of behavior and treatment associated with mental illness. In a clinical practicum, students will deal with adults with psychiatric disorders and with emergency social problems. They also will address the care of adults with physiological diseases; basic pharmacology; and drug administration. 10 hrs./wk. (NMH 7884)

**MHT 230**  
**MENTAL HEALTH TECHNOLOGY IV (7CR)**

*Prerequisite:* MHT 225

The focus is on the nursing care of children and adults with emotional disorders. Students will gain experience administering drugs. 13 hrs./wk. (NMH 4885)

## **METAL FABRICATION**

**MFAB 121**  
**INTRODUCTION TO WELDING (3CR)**

This is a beginning course in oxy-fuel cutting, oxy-fuel welding and brazing and shielded metal arc welding (SMAW). The SMAW portion will cover all positions but will be limited to fillet welds. All welds will be tested according to industry standards. 6 hrs. lecture-lab/wk. (TMF 8031).

*In the Corner Lounge, located in the College Commons, students can play games, relax, watch films and enjoy concerts.*



*To be eligible for financial aid, you must enroll in at least six credit hours a semester.*

**MFAB 125  
ADVANCED GAS AND ARC WELDING (3CR)**

*Prerequisite: MFAB 121*

Focus is on the theory and practice of out-of-position oxy-fuel welding; oxy-fuel brazing; shielded metal arc welding (SMAW) of v-butt plate in five positions; basic air-arc cutting and gouging; and certification requirements with root and face bend tests being performed according to industry standards. 6 hrs. lecture-lab/wk. (TMF 8021).

**MFAB 130  
MIG AND TIG I (3CR)**

Students will explore the theory of gas metal arc welding (GMAW) and gas tungsten arc welding (GTAW), also known as MIG and TIG; GTAW on mild steel; GTAW on aluminum; and GMAW on steel. In the lab, students will use welding symbols, read blueprints and test welds. 6 hrs. lecture-lab/wk. (TMF 8019).

**MFAB 140  
INTRODUCTION TO METAL FABRICATION (3CR)**

Students will have the opportunity to learn basic welding procedures, sheet metal work and other metal trades and how they interrelate with other technologies. They also will study how to safely handle materials; the compatibility of materials; and finish methods and how they work. 1 hr. lecture, 6 hrs. lab/wk. (TMF 8025).

**MFAB 230  
MIG AND TIG II (3CR)**

*Prerequisite: MFAB 130*

This is a review of the theory of GMAW and GTAW, GTAW on stainless steel, flux corded arc welding (FCAW) on steel, GMAW on aluminum and GMAW on steel. 6 hrs. lecture-lab/wk. (TMF 8020).

**MFAB 232  
SHEET METAL PATTERN  
AND DEVELOPMENT (3CR)**

*Prerequisite: DRAF 261 or DRAF 132*

Students will use layouts they have drawn in DRAF 261 to produce actual sheet metal developments. They also will learn to make layouts directly on the metal used to produce transition pieces and ductwork. 1 hr. lecture, 6 hrs. lab/wk. (TMF 8032).

## MUSIC

**MUS 121  
INTRODUCTION TO MUSIC LISTENING (3CR)**

Emphasis will be on listening in this survey of the development of music. Students will hear recorded medieval, Renaissance, Baroque, classical, Romantic and contemporary music including popular American forms. 3 hrs./wk. (HMU 8927)

**MUS 123  
INTRODUCTION TO  
MUSIC FUNDAMENTALS (2CR)**

This class is for the elementary classroom teacher or

music student without a background in theory. It will cover notation of melody, rhythm, meter and musical terminology. 2 hrs./wk. (HMU 7669)

**MUS 125  
INTRODUCTION TO JAZZ LISTENING (3CR)**

Listening will be emphasized in this introduction to the history of jazz in America. Focus will be on trends, periods and styles. 3 hrs./wk. (HMU 2777)

**MUS 131  
SIGHT-SINGING AND EAR TRAINING I (2CR)**

Students will combine aural and sight-reading skills in this course on the melodic, harmonic and rhythmic elements of music. 2 hrs./wk. (HMU 7656)

**MUS 132  
SIGHT-SINGING AND EAR TRAINING II (2CR)**

*Prerequisite: MUS 131*

This is a continued study of the melodic, harmonic and rhythmic elements of music, integrating aural and sight-reading skills. 2 hrs./wk. (HMU 5107)

**MUS 133  
SIGHT-SINGING AND EAR TRAINING III (2CR)**

*Prerequisite: MUS 132*

This is a continued advanced study of the melodic, harmonic and rhythmic elements of music. 2 hrs./wk. (HMU 3628)

**MUS 134  
SIGHT-SINGING AND EAR TRAINING IV (2CR)**

*Prerequisite: MUS 133*

In this advanced study, students will continue working on aural and sight-reading skills through melodic and harmonic dictation. 2 hrs./wk. (HMU 7563)

**MUS 141  
MUSIC THEORY: HARMONY I (2CR)**

The fundamentals of music will be reviewed and melodic line construction, triads and the connection of chords in four-part music writing will be introduced. 2 hrs./wk. (HMU 5010)

**MUS 142  
MUSIC THEORY: HARMONY II (2CR)**

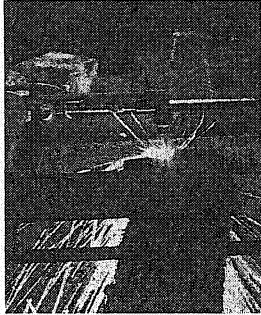
*Prerequisite: MUS 141*

Students will continue their work with melodic line, triads and connection of chords in four-part music writing. Emphasis will be on inverted triads and seventh chords. Elementary modulation will be introduced. 2 hrs./wk. (HMU 3559)

**MUS 143  
MUSIC THEORY: HARMONY III (2CR)**

*Prerequisite: MUS 142*

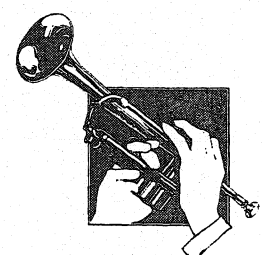
Students will continue working with modulation, nonharmonic tones and inverted triads in four-part music writing. The class introduces less common chord progressions, diatonic seventh chords, altered chords and borrowed chords with emphasis on original student composition. 2 hrs./wk. (HMU 6014)



Student I.D. cards are available at the Student Activities Office at the beginning of each semester.

Sound-proof music practice rooms are available in the new Office and Classroom Building.





**MUS 144  
MUSIC THEORY: HARMONY IV (2CR)**

*Prerequisite: MUS 143*

Students will continue working with original compositions in this introduction to augmented triads; Neopolitan, French and German sixth chords; chords at ninth, eleventh, thirteenth, advanced modulation and basic counterpoint. 2 hrs./wk. (HMU 2270)

**MUS 151  
MIXED VOCAL ENSEMBLE I (1CR)**

Any student may participate in this class involving rehearsal and performance of vocal music. The ensemble will perform some contemporary jazz and pop music and occasionally perform with the chamber choir. 3 hrs./wk. (HMU 9028)

**MUS 152  
MIXED VOCAL ENSEMBLE II (1CR)**

*Prerequisite: MUS 151*

This is a continuation of MIXED VOCAL ENSEMBLE I. 3 hrs./wk. (HMU 9029)

**MUS 153  
MIXED VOCAL ENSEMBLE III (1CR)**

*Prerequisite: MUS 152*

This is a continuation of MIXED VOCAL ENSEMBLE II. 3 hrs./wk. (HMU 9030)

**MUS 154  
MIXED VOCAL ENSEMBLE IV (1CR)**

*Prerequisite: MUS 153*

This is a continuation of MIXED VOCAL ENSEMBLE III. 3 hrs./wk. (HMU 9031)

**MUS 161  
CHAMBER CHOIR I (1CR)**

*Prerequisite: Audition*

Students will study and rehearse a variety of quality vocal music and perform at various student and community activities. 3 hrs./wk. (HMU 6529)

**MUS 162  
CHAMBER CHOIR II (1CR)**

*Prerequisite: MUS 161*

This is a continuation of CHAMBER CHOIR I. 3 hrs./wk. (HMU 2305)

**MUS 163  
CHAMBER CHOIR III (1CR)**

*Prerequisite: MUS 162*

This is a continuation of CHAMBER CHOIR II. 3 hrs./wk. (HMU 7542)

**MUS 164  
CHAMBER CHOIR IV (1CR)**

*Prerequisite: MUS 163*

This is a continuation of CHAMBER CHOIR III. 3 hrs./wk. (HMU 1208)

**MUS 171  
APPLIED VOICE I (Class) (1CR)**

This class offers instructions on singing from the beginning stages. 1 hr./wk. (HMU 1763)

**MUS 172  
APPLIED VOICE II (Class) (1CR)**

*Prerequisite: MUS 171*  
(HMU 2764)

**MUS 173  
APPLIED VOICE III (Class) (1CR)**

*Prerequisite: MUS 172*  
(HMU 4765)

**MUS 174  
APPLIED VOICE IV (Class) (1CR)**

*Prerequisite: MUS 173*  
(HMU 5766)

**MUS 181  
STUDENT JAZZ ENSEMBLE I (2CR)**

*Prerequisite: Audition*

Ensemble will perform jazz and popular music at festivals, public concerts and college functions. 6 hrs./wk. (HMU 6410)

**MUS 182  
STUDENT JAZZ ENSEMBLE II (2CR)**

*Prerequisite: MUS 181*

This class consists of continued performances of jazz and popular music at festivals, public concerts and college functions. 6 hrs./wk. (HMU 6411)

**MUS 183  
STUDENT JAZZ ENSEMBLE III (2CR)**

*Prerequisite: MUS 182*

This class consists of continued performances of jazz and popular music at festivals, public concerts and college functions. 6 hrs./wk. (HMU 6412)

**MUS 184  
STUDENT JAZZ ENSEMBLE IV (2CR)**

*Prerequisite: MUS 183*

Students will continue to perform jazz and popular music at public concerts, festivals and college functions. 6 hrs./wk. (HMU 6413)

**MUS 187  
JAZZ IMPROVISATION I (2CR)**

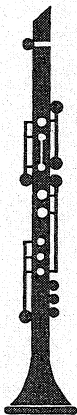
*Prerequisite: High school playing experience*

This is a fundamental approach to rhythm and melodic lines involved in creative improvisation. Basic procedures for analyzing chords and chord structures will serve as an outline for organized spontaneous playing. 2 hrs./wk. (HMU 2262)

JCCC's library features an electronic card catalog system that puts the catalog of library holdings as close as the switch on a viewing screen.

The Library uses the Checkpoint Book Security System which protects both print and non-print materials.

The JCCC campus is easily accessible from I-35 and I-435.



**MUS 188  
JAZZ IMPROVISATION II (2CR)**

*Prerequisite: MUS 187*

This continuation of JAZZ IMPROVISATION I focuses on creative improvisation and procedures for analyzing chord structures as an outline for organized spontaneous playing. 2 hrs./wk. (HMU 1245)

**MUS 191  
BAND I (1CR)**

*Prerequisite: High school playing experience*

Concert band repertoire — especially early works and original contemporary selections — will be the basis of these performances. 3 hrs./wk. (HMU 8008)

**MUS 192  
BAND II (1CR)**

*Prerequisite: MUS 191 or by permission*

This is a continuation of BAND I. 3 hrs./wk. (HMU 8009)

**MUS 193  
BAND III (1CR)**

*Prerequisite: MUS 192 or by permission.*

This is a continuation of Band II. 3 hrs./wk. (HMU 8010)

**MUS 194  
BAND IV (1CR)**

*Prerequisite: MUS 193 or by permission*

This is a continuation of BAND III. 3 hrs./wk. (HMU 8011)

**MUS 201  
CHAMBER ENSEMBLE I (1CR)**

*Prerequisite: High school playing experience or equivalent*

Students will study and perform standard literature for ensembles: brass, woodwind, jazz combo and percussion. 2 hrs./wk. (HMU 3146)

**MUS 202  
CHAMBER ENSEMBLE II (1CR)**

*Prerequisite: MUS 201*

This is a continuation of CHAMBER ENSEMBLE I. 2 hrs./wk. (HMU 4166)

**MUS 203  
CHAMBER ENSEMBLE III (1CR)**

*Prerequisite: MUS 202*

This class is a continuation of CHAMBER ENSEMBLE II. 2 hrs./wk. (HMU 5202)

**MUS 204  
CHAMBER ENSEMBLE IV (1CR)**

*Prerequisite: MUS 203*

This class is a continuation of CHAMBER ENSEMBLE III. 2 hrs./wk. (HMU 6213)

Interested in taking part in a musical performing group? See JCCC's instrumental and vocal music instructors for information.

**MUS 211  
ORCHESTRA I (1CR)**

*Prerequisite: Audition*

Students will rehearse and perform with the Overland Park Civic Orchestra. 2 hrs./1 evening per wk. (HMU 3671)

**MUS 212  
ORCHESTRA II (1CR)**

*Prerequisite: MUS 211 or audition*

This is a continuation of ORCHESTRA I. 2 hrs./1 evening per wk. (HMU 1374)

**MUS 213  
ORCHESTRA III (1CR)**

*Prerequisite: MUS 212 or audition*

This is a continuation of ORCHESTRA II. 2 hrs./1 evening per wk. (HMU 1049)

**MUS 214  
ORCHESTRA IV (1CR)**

*Prerequisite: MUS 213 or audition*

This is a continuation of ORCHESTRA III. 2 hrs./1 evening per wk. (HMU 2534)

**MUS 216  
APPLIED WOODWIND I (Class) (1CR)**

In this class, students will be instructed on the wind instrument of their choice. 1 hr./wk. (HMU 7759)

**MUS 217  
APPLIED WOODWIND II (Class) (1CR)**

*Prerequisite: MUS 216*

1 hr./wk. (HMU 8760)

**MUS 218  
APPLIED WOODWIND III (Class) (1CR)**

*Prerequisite: MUS 217*

1 hr./wk. (HMU 2761)

**MUS 219  
APPLIED WOODWIND IV (Class) (1CR)**

*Prerequisite: MUS 218*

1 hr./wk. (HMU 5762)

**MUS 221  
APPLIED PIANO I (Class) (1CR)**

This class offers instruction in playing the piano. 1 hr./wk. (HMU 8767)

**MUS 222  
APPLIED PIANO II (Class) (1CR)**

*Prerequisite: MUS 221*

1 hr./wk. (HMU 4768)

**MUS 223  
APPLIED PIANO III (Class) (1CR)**

*Prerequisite: MUS 222*

1 hr./wk. (HMU 8769)

**MUS 224  
APPLIED PIANO IV (Class) (1CR)**

*Prerequisite: MUS 223*  
1 hr./wk. (HMU 5770)

**MUS 226  
APPLIED GUITAR I (Class) (1CR)**

This class offers beginning instruction in playing the guitar. 1 hr./wk. (HMU 4771)

**MUS 227  
APPLIED GUITAR II (Class) (1CR)**

*Prerequisite: MUS 226*  
1 hr./wk. (HMU 2772)

**MUS 228  
APPLIED GUITAR III (Class) (1CR)**

*Prerequisite: MUS 227*  
1 hr./wk. (HMU 1773)

**MUS 229  
APPLIED GUITAR IV (Class) (1CR)**

*Prerequisite: MUS 228*  
1 hr./wk. (HMU 5774)

**MUS 231  
APPLIED VOICE I (Private) (1CR)**

This instruction in vocal music is private. 1/2 hr./wk. by arrangement. (HMU 3779)

**MUS 232  
APPLIED VOICE II (Private) (1CR)**

*Prerequisite: MUS 231*  
(HMU 5780)

**MUS 233  
APPLIED VOICE III (Private) (1CR)**

*Prerequisite: MUS 232*  
(HMU 6781)

**MUS 234  
APPLIED VOICE IV (Private) (1CR)**

*Prerequisite: MUS 233*  
(HMU 4782)

**MUS 236  
APPLIED PIANO I (Private) (1CR)**

Students will be offered private instruction on the piano. 1/2 hr./wk. By arrangement (HMU 6783)

**MUS 237  
APPLIED PIANO II (Private) (1CR)**

*Prerequisite: MUS 236*  
1/2 hr./wk. By arrangement (HMU 1784)

**MUS 238  
APPLIED PIANO III (Private) (1CR)**

*Prerequisite: MUS 237*  
1/2 hr./wk. By arrangement (HMU 4785)

**MUS 239  
APPLIED PIANO IV (Private) (1CR)**

*Prerequisite: MUS 238*  
1/2 hr./wk. By arrangement (HMU 8786)

**MUS 241  
APPLIED GUITAR I (Private) (1CR)**

This class offers private instruction on the guitar. 1/2 hr./wk. By arrangement (HMU 6787)

**MUS 242  
APPLIED GUITAR II (Private) (1CR)**

*Prerequisite: MUS 241*  
1/2 hr./wk. By arrangement (HMU 1788)

**MUS 243  
APPLIED GUITAR III (Private) (1CR)**

*Prerequisite: MUS 242*  
1/2 hr./wk. By arrangement (HMU 6789)

**MUS 244  
APPLIED GUITAR IV (Private) (1CR)**

*Prerequisite: MUS 243*  
1/2 hr./wk. By arrangement (HMU 5790)

**MUS 246  
APPLIED CLASSICAL GUITAR I (Private) (1CR)**

Students will be offered private instruction on classical guitar. 1/2 hr./wk. By arrangement (HMU 1791)

**MUS 247  
APPLIED CLASSICAL GUITAR II (Private) (1CR)**

*Prerequisite: MUS 246*  
1/2 hr./wk. By arrangement (HMU 3792)

**MUS 248  
APPLIED CLASSICAL GUITAR III (Private) (1CR)**

*Prerequisite: MUS 247*  
1/2 hr./wk. By arrangement (HMU 1793)

**MUS 249  
APPLIED CLASSICAL GUITAR IV (Private) (1CR)**

*Prerequisite: MUS 248*  
1/2 hr./wk. By arrangement (HMU 2794)

**MUS 251  
APPLIED BRASS I (Private) (1CR)**

Students will be offered private instruction on the brass instrument of their choice. 1/2 hr./wk. By arrangement (HMU 5795)

**MUS 252  
APPLIED BRASS II (Private) (1CR)**

*Prerequisite: MUS 251*  
1/2 hr./wk. By arrangement (HMU 7796)

**MUS 253  
APPLIED BRASS III (Private) (1CR)**

*Prerequisite: MUS 252*  
1/2 hr./wk. By arrangement (HMU 9797)

Foreign students must take the Test of English as a Foreign Language (TOEFL) before being admitted.



JCCC's Child Play Center may stay open in the evening if need is shown.

JCCC's Center for Continuing Health Education offers non-credit training opportunities for health professionals.

Disabled students may take advantage of a variety of support services such as notetaking, interpreting and tutoring.



**MUS 254  
APPLIED BRASS IV (Private) (1CR)**  
Prerequisite: MUS 253  
½ hr./wk. By arrangement (HMU 6798)

**MUS 256  
APPLIED PERCUSSION I (Private) (1CR)**  
Students will be offered private instruction on the percussion instrument of their choice. ½ hr./wk. By arrangement (HMU 1799)

**MUS 257  
APPLIED PERCUSSION II (Private) (1CR)**  
Prerequisite: MUS 256  
½ hr./wk. By arrangement (HMU 6800)

**MUS 258  
APPLIED PERCUSSION III (Private) (1CR)**  
Prerequisite: MUS 257  
½ hr./wk. By arrangement (HMU 4801)

**MUS 259  
APPLIED PERCUSSION IV (Private) (1CR)**  
Prerequisite: MUS 258  
½ hr./wk. By arrangement (HMU 1802)

**MUS 261  
APPLIED WOODWIND I (Private) (1CR)**  
Students can choose their own woodwind instrument for this private instruction. ½ hr./wk. By arrangement (HMU 2775)

**MUS 262  
APPLIED WOODWIND II (Private) (1CR)**  
Prerequisite: MUS 261  
½ hr./wk. By arrangement (HMU 8776)

**MUS 263  
APPLIED WOODWIND III (Private) (1CR)**  
Prerequisite: MUS 262  
½ hr./wk. By arrangement (HMU 7777)

**MUS 264  
APPLIED WOODWIND IV (Private) (1CR)**  
Prerequisite: MUS 263  
½ hr./wk. By arrangement (HMU 1778)

## **NURSING**

**NURS 121  
NURSING CARE OF THE INDIVIDUAL:  
CONCEPTS OF HEALTH (8CR)**  
Prerequisite: Admission to the Nursing program  
Corequisites: BIOL 140, PSYC 130

The first in a series of four courses, this introduction to nursing emphasizes the maintenance of good health in individuals of various ages. This course also examines the concepts and principles of basic nursing care, providing a foundation for subsequent nursing courses. 4 hrs. class, 12 hrs. lab/wk. Fall. (NRN 8846)

**NURS 122  
NURSING CARE OF THE INDIVIDUAL:  
ADAPTATION TO CHANGE (8CR)**  
Prerequisite: NURS 121  
Corequisites: BIOL 225 and PSYC 151  
The second of four sequential courses, this course provides an opportunity for students to explore the impact of change on the individual and family and to apply the nursing process in meeting the needs of individuals. Clinical laboratory practice is an integral part of the course. 4 hrs. class, 12 hrs. clinical lab/wk. Spring. (NRN 3131)

**NURS 123  
LPN-RN TRANSITION COURSE (8CR)**  
Prerequisite: Licensing as vocational practical nurse and admission with advanced standing to the nursing program  
This is an orientation to the philosophy of the associate degree nursing program for LPNs seeking advanced standing. Topics include group process, relationships, the role of the AD graduate, communication skills and nursing process. Individual assessment and assistance will be emphasized. 24 hrs./wk. for 6 wks. (NRN 3655)

**NURS 221  
NURSING CARE OF THE INDIVIDUAL:  
SHORT-TERM HEALTH PROBLEMS (9CR)**  
Prerequisites: NURS 122 and PSYC 151  
The third in a sequence of four courses, the focus in this course is on the individual whose optimum state of well-being has been altered by a temporary, acute, disruptive problem which requires implementation of the nursing process. Pathophysiology and the application of basic scientific principles in the problem-solving process are stressed. Clinical laboratory experience in health care agencies is an important part of the course. 4 hrs. class, 15 hrs. clinical lab/wk. Fall. (NRN 2847)

**NURS 222  
NURSING CARE OF THE INDIVIDUAL:  
LONG-TERM HEALTH PROBLEMS (9CR)**  
Prerequisite: NURS 221  
The fourth in a sequence of four nursing courses focuses on the individual whose optimum state of well-being has been altered by chronic, progressive, disruptive problems which require implementation of the nursing process. Emphasis is on the concept of rehabilitation, adaptation to a permanently-altered life style and the development and/or reestablishment of independence. The role of the AD graduate seeking employment in the community is stressed. 4 hrs. lecture, 15 hrs. clinical lab/wk. Spring. (NRN 5848)

**OCCUPATIONAL THERAPY**

**KOT 100  
INTRODUCTION TO  
OCCUPATIONAL THERAPY (2CR)**  
This class is a survey of the profession of occupational therapy and its relation to the health care system. The



role and function of the registered occupational therapist and the certified occupational therapy assistant is presented through films, group discussion, reading assignments and guest lecturers who work in occupational therapy specialty areas. 12 hrs. in occupational therapy clinics required. 2 hrs. class/wk.

**KOT 101  
OCCUPATIONAL THERAPY  
GROWTH AND DEVELOPMENT (3CR)**

*Prerequisite: KOT 100 and admission to program*  
Physical, perceptual, cognitive, social, intellectual and emotional development during normal growth from pre-natal stages through death is presented. Students are required to observe normal states of growth at day care centers, community centers and work settings. 3 hrs./wk.

**KOT 102  
OCCUPATIONAL THERAPY  
IN MENTAL HEALTH (3CR)**

*Prerequisite: PSYC 130, KOT 101 and a minimum grade of "C"*  
This course includes a survey of personality disorders, psychoses, adjustment reactions, brain dysfunctions, anxiety disorders, behavioral reactions and substance abuse. Various types of mental health settings and health care professionals are studied. 3 hrs./wk.

**KOT 103  
CLINICAL CONDITIONS (3CR)**

*Prerequisite: KOT 100 and admission to program*  
This course covers both physical and psychosocial dysfunctions commonly referred to and treated by occupational therapists. 2 hrs. lecture, 2 hrs. lab/wk.

**KOT 104  
THERAPEUTIC MEDIA I (2CR)**

*Prerequisite: KOT 100*  
The development of skills in basic craft, recreational and daily living activities used as therapeutic media in occupational therapy settings will be presented. 4 hrs./wk.

**KOT 200  
PRINCIPLES OF  
OCCUPATIONAL THERAPY (2CR)**

*Prerequisite: KOT 100 and admission to program*  
This course surveys principles and standards in the practice of occupational therapy. Topics presented include writing progress notes, program development and other indirect services. 2 hrs./wk.

**KOT 201  
OCCUPATIONAL THERAPY  
IN MENTAL HEALTH II (5CR)**

*Prerequisite: PSYC 130, KOT 102*  
This is a continuation of the study of occupational therapy in mental health settings. Discussion will cover evaluations, principles and techniques the occupational therapist uses in the psychiatric setting. The students will observe treatment methods under

the supervision of a registered occupational therapist in various local hospitals. 2 hrs. lecture, 6 hrs. lab/wk.

**KOT 202  
OCCUPATIONAL THERAPY  
IN PHYSICAL DISABILITIES (5CR)**

*Prerequisite: KOT 100, KOT 101, KOT 104, BIOL 144*  
Areas covered in lab and lecture include occupational therapy treatment techniques, methods and adaptive equipment used with the physically disabled. Students will be assigned to various local hospital occupational therapy departments to observe treatment methods under the supervision of a registered occupational therapist. 2 hrs. lecture, 6 hrs. lab/wk.

**KOT 203  
SHOP PRACTICES/ORTHOTICS (2CR)**

*Prerequisite: KOT 100 and admission to program*  
This course includes demonstrations in the use and care of power and hand tools in the fabrication of equipment or devices used in occupational therapy. 4 hrs./wk.

**KOT 204  
THERAPEUTIC MEDIA II (3CR)**

*Prerequisite: KOT 103 and art elective*  
Students will study the characteristics, adaptability and therapeutic use of activities employed in occupational therapy. Instruction in the performance of teaching techniques as they apply to special conditions also will be included. 1 hr. lecture, 4 hrs. lab/wk.

**KOT 205  
FIELDWORK IN  
OCCUPATIONAL THERAPY I (3CR)**

*Prerequisite: Successful completion of all theory courses with a minimum grade of "C" or approval of division director*  
This course consists of directed fieldwork experience in the practice of occupational therapy with clients with physical dysfunctioning. 240 clock hours

**KOT 206  
FIELDWORK IN  
OCCUPATIONAL THERAPY II (3CR)**

*Corequisites: Concurrent enrollment in KOT 205 and minimum grade of "C" or approval of division director*  
This course consists of directed fieldwork experience in the practice of occupational therapy with clients with psychosocial dysfunctioning. 240 clock hours

**KOT 207  
CLINICAL SEMINAR (2CR)**

*Corequisites: KOT 205 and KOT 206 or approval of division director*  
The students will discuss professionalism as well as their experiences in the clinical areas. 2 hrs./wk.

*Registration schedules are published in the Credit Bulletin each semester.*



*JCCC is the home of the Barn Players, a community theater group.*

## PARALEGAL

### PL 121 INTRODUCTION TO LAW (3CR)

This introductory study of the legal system covers the nature and functions of law and the operation and structure of state and federal court systems and administrative agencies. Surveys the major areas of substantive law. (Open to students with a general interest in the law and required of students enrolled in the Paralegal Program.) 3 hrs./wk. (BPL 9739).

### PL 123 PARALEGAL PROFESSIONAL STUDIES (1CR)

*Prerequisite or corequisite: PL 121*

Students will discuss the role of legal assistants in the practice of law. They also will review paralegal functions, types of employment, education, licensing, professional ethics, unauthorized practice of law. Class includes an introduction to paralegal skills. 1 hr./wk.

### PL 131 LEGAL RESEARCH (3CR)

*Corequisite: PL 121 and PL 123 or division director approval*

This is a practical approach to legal research problems. Through research projects, students will become familiar with legal publications and how to use them in solving legal problems. Methods and various forms of legal writing also will be discussed. 3 hrs./wk. (BPL 7740)

### PL 132 LITIGATION I (3CR)

*Prerequisite: PL 121, 123 and PL 131 or division director approval*

Civil litigation — especially the practice aspects involved in the trial of a civil lawsuit — will be explored. Includes the study of various types of litigation; Kansas, Missouri and federal civil procedures; trial preparation; and trial and post-trial matters. 3 hrs./wk. (BPL 7917)

### PL 152 REAL ESTATE LAW (3CR)

*Prerequisites: PL 121 and PL 123 or division director approval*

Real property and common types of real estate transactions and conveyances will be examined. The preparation of legal instruments — such as deeds, contracts, leases, deeds of trust and mortgages — will be studied. Students will be involved with projects and practice retrieving and recording information. 3 hrs./wk. (BPL 2828)

### PL 162 FAMILY LAW (3CR)

*Prerequisite: PL 121 and PL 123 or division director approval*

Specific topics in family law covered in this class include adoption, guardianships, child custody and support, name changes, contested and uncontested

divorces. Emphasis will be on court forms, preparing pleadings and settlement agreements and using interviewing checklists. 3 hrs./wk. (BPL 1910)

### PL 171 LAW OFFICE SYSTEMS (3CR)

*Prerequisite: PL 121 and 123 or division director approval*

This is a study of the internal function of the law office or legal department. It will address such areas as personnel matters; office systems including docketing and time controls; law library maintenance; filing systems; financial and accounting management; and office equipment. 3 hrs./wk. (BPL 2175)

### PL 205 LEGAL WRITING (1CR)

*Prerequisite: PL 131*

LEGAL WRITING has been designed to acquaint students with specialized legal research and factual research. Emphasis will be on preparing and writing legal briefs and other documents related to legal research. 16 hrs./semester

### PL 212 BUSINESS ORGANIZATIONS (3CR)

*Prerequisite: PL 121 and PL 123 or division director approval*

Business entities — such as corporations, partnerships and sole proprietorships — will be examined. The role of the lawyer and the legal assistant in forming these entities will be discussed along with the legal concepts applicable to each type of organization and the preparation of related documents. 3 hrs./wk. (BPL 3320)

### PL 221 COMMERCIAL TRANSACTIONS (1CR)

*Prerequisite: PL 121 and PL 123 or division director approval*

Personal property contracts — especially documents and forms related to sales and credit transactions — will be explained. This class also will cover preparation of business and commercial documents and the application of Uniform Commercial Code provisions. 16 hrs./semester. (BPL 9918)

### PL 232 LITIGATION II (3CR)

*Prerequisite: PL 132 or division director approval*

In this continuation of LITIGATION I, emphasis will be on the trial and appellate stages of civil litigation. It includes an in-depth preparation of pleadings and related documents. 3 hrs./wk. (BPL 8940)

### PL 241 WILLS, TRUSTS AND PROBATE ADMINISTRATION (3CR)

*Prerequisite: PL 121 and PL 123 or division director approval*

Included in this study of the administration of estates are techniques for fact gathering, inheritance and estate tax principles, use of trusts, will drafting and



Good writing and communication skills are a "must" for anyone interested in becoming a paralegal.

Special parking is available for bicycles and motorcycles.

probate procedures. Emphasis will be on standard procedures used in assisting lawyers in these areas. 3 hrs./wk. (BPL 7826)

**PL 242  
ESTATE PLANNING (3CR)**

*Prerequisite: PL 241 or division director approval*  
The tax considerations involved in estate planning are reviewed. Topics include the preparation of federal estate tax forms, state inheritance forms, fiduciary income tax returns and drafting trust provisions. 3 hrs./wk. (BPL 2218)

**PL 261  
RETIREMENT PLANS -  
QUALIFICATIONS AND ADMINISTRATION (1CR)**

*Prerequisite: PL 212 or division director approval*  
This study of qualified retirement plans will emphasize design, fundings and operation. Topics will include preparing documents for qualification, administration and termination. IRAs, KEOGHs and other retirement plans will also be discussed. Class meets 16 hrs./semester. (BPL 4035)

**PL 264  
WORKERS' COMPENSATION (1CR)**

*Prerequisite: PL 121 and PL 123 or division director approval*

Emphasis in this in-depth study of workers' compensation will be on preparation of claims, benefits, adjudication and administrative procedures. Class meets 16 hrs./semester. (BPL 3866)

**PL 268  
BANKRUPTCY (1CR)**

*Prerequisite: PL 121 and PL 123 or division director approval*

This in-depth study of bankruptcy law emphasizes the preparation of forms and bankruptcy proceedings. Class meets 16 hrs./semester.

**PL 271  
SEMINAR: LEGAL INTERVIEWING  
AND INVESTIGATION (2CR)**

*Prerequisites: PL 121, PL 123 and 9 credits in other paralegal specialty courses*

In this course, students will implement skills acquired in prerequisite courses and study in-depth legal ethics. The course covers legal interviewing and investigation with emphasis on development of related skills. 2 hrs./wk. (BPL 3867)

**PL 275  
PARALEGAL INTERNSHIP I (1CR)**

*Prerequisite: PL 271*

Students will work in an approved training situation under instructional supervision. This internship is designed to give students the opportunity to apply the skills they acquired in paralegal specialty courses. By arrangement.

**PL 276  
PARALEGAL INTERNSHIP II (1CR)**

*Prerequisite: PL 275*

Students will work in approved training situations under instructional supervision. The internship is designed to give students the opportunity to apply the skills they acquired in paralegal specialty courses. By arrangement.

**PL 298  
LEGAL LONDON (2CR)**

The areas of London and the British government which relate directly to American law and government will be examined in this course. Contact hrs. (BPL 2105)

## PHILOSOPHY

**PHIL 121  
INTRODUCTION TO PHILOSOPHY (3CR)**

Students will examine basic issues of philosophy including the nature of being, methods of acquiring knowledge and the foundation of moral, religious and political beliefs. Emphasis is on the value of philosophical inquiry in today's society. 3 hrs./wk. (HUM 7520)

**PHIL 132  
LOGIC (3CR)**

In this study of informal and formal logic, emphasis is on the nature and structure of arguments, the requirements for evidence and validity, and techniques for assessing the strengths of various forms of arguments. 3 hrs./wk. (HUM 6392)

**PHIL 143  
ETHICS (3CR)**

The great problems of ethics — including free will and determinism, relativism and absolutism, the relationship between individuals and between individuals and society — will be examined. The instructor will explain traditional positions, helping students to understand contemporary social and moral issues. 3 hrs./wk. (HUM 3080)

**PHIL 154  
HISTORY OF ANCIENT PHILOSOPHY (3CR)**

Greek and Roman thought — ranging from speculation about the universe and theories of natural selection and atomism to treatises about the nature of individual existence and society — will be examined. Selections from ancient texts will be used with commentaries where appropriate. 3 hrs./wk. (HUM 5966)

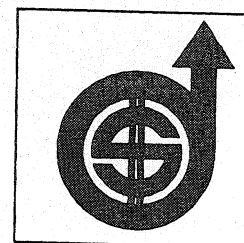
**PHIL 165  
PHILOSOPHY OF  
CURRENT CIVILIZATION (3CR)**

This is a systematic and critical analysis of selected major current issues in American civilization and the philosophies presupposed by these issues. Students will refer to philosophical articles and news media. 3 hrs./wk. (HUM 2532)

*JCCC is the home of the  
Arts Council of Johnson  
County.*



*Call the What's Happening  
Hotline at 541-3888  
for up-to-date information  
on student activities.*



**PHIL 176  
PHILOSOPHY OF RELIGION (3CR)**

This course deals with the following general philosophical questions: What is religion? Do we need religion and, if so, why? What are the differences between the claims made by religion and science? All readings are from contemporary theological and philosophical sources. 3 hrs./wk. (HUM 2541)

## **PHOTOGRAPHY**

**PHOT 121  
PHOTOGRAPHY I (3CR)**

In this introduction to the basic processes and principles of photography, emphasis is on becoming competent in the use of photographic materials and equipment including cameras, light meters, films, filters and chemicals. Students also will develop negatives, print and present photographs. Students must provide their own cameras with adjustable focus, shutter speeds and aperture. 3 hrs. lecture, 3 hrs. lab/wk. (HPH 5555)

**PHOT 122  
PHOTOGRAPHY II (3CR)**

*Prerequisite: PHOT 121*

Emphasis is on developing professional standards of photographic technique and image quality. Topics include exposure and development control using the "zone system," natural light photography, advanced classroom techniques, chemistry and toning. Basic view camera techniques also will be introduced. 3 hrs. lecture, 3 hrs. lab/wk. (HPH 6666)

**PHOT 123  
PHOTOGRAPHY III (3CR)**

*Prerequisite: PHOT 121*

This course emphasizes commercial and other forms of applied photography. The class includes view camera techniques and lighting techniques with emphasis on studio lighting, portrait, advertising, illustration and journalistic photography. Color transparency processing also will be introduced. 3 hrs. lecture, 3 hrs. lab/wk. (HPH 3880)

**PHOT 134  
COLOR TRANSPARENCIES (2CR)**

*Prerequisite: PHOT 121*

The materials, camera techniques, processing and various applications of color transparency film will be explained. Color transparencies used in audio-visual presentations, documentation, commercial illustration, travel photography and other communication will be emphasized. Each student must provide a 35mm camera with adjustable shutter, aperture and focus as well as film, slide mounts and carousel slide trays. 2 hrs. lecture, 2 hrs. lab/wk. (HPH 5481)

**PHOT 140  
HISTORY OF PHOTOGRAPHY (3CR)**

In this survey of the history of photography from the 1830s through today, the technology and aesthetics of photography will be covered and related in an interdisciplinary manner to the broader histories of art, culture and ideas. 3 hrs. lecture/wk. (HPH 4009)

**PHOT 141  
ISSUES IN CONTEMPORARY  
PHOTOGRAPHY (3CR)**

*Prerequisite: PHOT 140*

Current photography will be surveyed along with important contemporary photographers, new color photography, recent criticism and photography's relation to art. Photography is viewed in relation to important aspects of modern culture and thought. 3 hrs./wk. (HPH 3417)

## **PHYSICAL DEVELOPMENT**

**PD 105  
BEGINNING BOWLING (1CR)**

The fundamentals of bowling will be introduced along with the history of the sport and the selection, care and proper use of equipment. 2 hrs./wk. (PD 1008)

**PD 107  
BOWLING (INTERMEDIATE) (1CR)**

Advanced skills of league bowling will be introduced and terminology, etiquette and scoring reviewed. 2 hrs./wk. (PD 1009)

**PD 110  
BEGINNING RACQUETBALL (1CR)**

A brief history of rules and terminology will be followed by instruction and actual practice of the fundamentals. 2 hrs./wk. (PD 1010)

**PD 112  
INTERMEDIATE RACQUETBALL (1CR)**

Advanced skills, strategy and patterns of plays will be introduced. 2 hrs./wk. (PD 1016)

**PD 115  
SOCCER (1CR)**

The basics, some advanced skills and tactics of the game will be introduced. 2 hrs./wk. (PD 1012)

**PD 117  
POWER VOLLEYBALL (BEGINNING) (1CR)**

The basic skills of volleyball will be taught including the forearm pass, overhead set, serve spike. Elementary offense and defense will be covered. 2 hrs./wk. (PD 1723)

**PD 118  
POWER VOLLEYBALL (INTERMEDIATE) (1CR)**

Intermediate and advanced skills of power volleyball are the focus of this class. Emphasis is on refinement of skills. Multiple offenses and advanced defenses will be explained. 2 hrs./wk. (PD 6736)

The photography department is located in the ATB building.



JCCC is a member of the National Junior College Athletic Association (NJCAA) and the Kansas Jayhawk Community College Conference.



**PD 120  
FUNDAMENTALS OF BASKETBALL (2CR)**

Students will explore the fundamentals of offensive and defensive basketball, individual and team play, and strategy and rules. 3 hrs./wk. (PD 1153)

**PD 125  
FUNDAMENTALS OF BASEBALL  
(BEGINNING) (3CR)**

This introduction to baseball is for the prospective player, the coach or spectator. 5 hrs./wk. (PD 1727)

**PD 127  
FUNDAMENTALS OF BASEBALL  
(INTERMEDIATE) (3CR)**

The prospective player, the coach and the spectator can gain from this class. 5 hrs./wk. (PD 4735)

**PD 130  
RUNNING AWARENESS AND EXERCISE (1CR)**

Cardiovascular fitness can be improved in this course. Topics include the proper mechanics of running and training; exercise benefits; fitness programs; warm-ups and cool-downs. 2 hrs./wk. (PD 1829)

**PD 132  
PHYSICAL FITNESS - HEAVYHANDS (1CR)**

Heavyhands — an exercise program combining motor skills, jogging, calisthenics and the use of hand weights of varying sizes — is the topic of this course. Students will focus on this innovative system of high repetition movements that involves heart, lungs and every major muscle group simultaneously. 2 hrs./wk. (PD 2566)

**PD 134  
WEIGHT TRAINING AND  
PHYSICAL FITNESS (BEGINNING) (1CR)**

The cardiovascular system, as well as overall fitness, will be stressed. Students will work on identifying muscles and on their personal overall conditioning program. 2 hrs./wk. (PD 1020)

**PD 135  
WEIGHT TRAINING AND  
PHYSICAL FITNESS (INTERMEDIATE) (1CR)**

This class involves increased development of the cardiovascular system as well as overall fitness. Students will work on their own personal conditioning program. 2 hrs./wk. (PD 1025)

**PD 137  
BEGINNING TENNIS (1CR)**

Students will get individualized instruction in this course on the rules, fundamentals and history of tennis. 2 hrs./wk. (PD 1017)

**PD 138  
INTERMEDIATE TENNIS (1CR)**

Students can work on the fundamentals of the game and various patterns of play. 2 hrs./wk. (PD 1018)

**PD 140  
BEGINNING MODERN DANCE (1CR)**

This is a planned, progressive fitness program designed to improve muscle tone, body contour and flexibility through modern dance. 2 hrs./wk. (PD 1058)

**PD 142  
INTERMEDIATE MODERN DANCE (1CR)**

In this course, students will concentrate on longer and more difficult dance combinations as they work on muscular control and strength. 2 hrs./wk. (PD 4296)

**PD 145  
BEGINNING CHEERLEADING (1CR)**

This class focuses on working together, timeout cheers, chants for sideline cheers and pom pom routines. Cheerleaders will represent the college at community activities. 4 hrs./wk, October-March. (PD 1026)

**PD 147  
INTERMEDIATE CHEERLEADING (1CR)**

*Prerequisite: PD 145*

Cheerleaders will make up original cheers and present them to the group. They also will work with the instructor in planning and coordinating activities. 4 hrs./wk., October-March (PD 1027)

**PD 150  
BEGINNING RHYTHMIC AEROBICS (1CR)**

Motor skills, jogging and dance steps are combined in this exercise program designed to improve muscle tone and cardiovascular fitness. 2 hrs./wk. (PD 1380)

**PD 152  
INTERMEDIATE RHYTHMIC AEROBICS (1CR)**

Motor skills, jogging and dance steps are performed at a faster pace for a longer period of time than in RHYTHMIC AEROBICS (BEGINNING). 1 hr. lecture, 1 hr. lab/wk. (PD 1440)

**PD 155  
BEGINNING BALLET (1CR)**

The fundamentals of ballet will be introduced as well as terminology and skills. 2 hrs./wk. (PD 2655)

**PD 157  
INTERMEDIATE BALLET (1CR)**

*Prerequisite: PD 155 or equivalent*

In this continuation of BEGINNING BALLET, students will work on advanced skills, terminology and participation. 2 hrs./wk. (PD 7165)

**PD 160  
BEGINNING ICE-SKATING (1CR)**

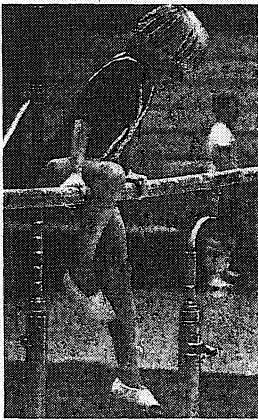
Students will study the fundamental skills and techniques of ice-skating. 2 hrs. lab/wk. (PD 5117)



*JCCC's campus features a .9 mile parcourse located near the Gym.*

*You may explore in depth an area not covered in the regular curriculum by enrolling in independent study. Contact the division director in the area in which you are interested.*

The athletic teams at JCCC are known as the Cavaliers.



**HISTORY OF ASTRONOMY:**  
*COSMOS* is a telecourse offered via Overland Park Telecable channel 3A.

**PD 165  
KARATE (BEGINNING) (1CR)**

The fundamentals of karate will be introduced as well as its history, basic punches, blocks, kicks and self-defense techniques. 2 hrs./wk. (PD 7229)

**PD 166  
KARATE (INTERMEDIATE) (1CR)**

Students will put the techniques of karate to practice in this class which also covers combination and defense techniques. 2 hrs./wk. (PD 2728)

**PD 170  
WRESTLING (1CR)**

This class offers individualized instruction in the rules, fundamentals and history of wrestling. Practice area scheduled by arrangement. (PD 4257)

**PD 175  
FENCING (1CR)**

This class offers individualized instruction in the rules, fundamentals and history of fencing. 2 hrs./wk. (PD 6499)

**PD 180  
GYMNASTICS (1CR)**

Students with little or no experience will get individualized instruction in tumbling, side horse, even and uneven parallel bars, balance beam and trampoline. 2 hrs./wk. (PD 4536)

**PD 185  
ARCHERY (1CR)**

Students will get individualized instruction in the rules, fundamentals and history of archery. A survey of the origin of archery and the selection and care of equipment also will be included. 2 hrs./wk. (PD 7129).

**PD 190  
GOLF (1CR)**

Students will get individualized instruction in the rules, fundamentals and history of the sport. Proper use of clubs and courtesies of the game also will be covered. 2 hrs./wk. (PD 3235)

**PD 205  
INDIVIDUAL LIFETIME SPORTS (2CR)**

In a group, students will participate in badminton, racquetball, golf, tennis and bowling. History, rules and strategy will be presented for each lifetime sport. 3 hrs./wk. (PD 4291)

**PD 210  
FUNDAMENTALS OF ATHLETICS (2CR)**

The importance of sports in society, career opportunities and other sports issues will be discussed. 3 hrs./wk. (PD 4146)

**PD 215  
FALL SPORTS OFFICIATING (2CR)**

The rules of football, volleyball, soccer and basketball will be covered in this class for officials as well as spectators. 3 hrs./wk. (PD 7168)

**PD 220  
SPRING SPORTS OFFICIATING (2CR)**

Rules of basketball and baseball will be explained in this course for officials and spectators. 3 hrs./wk. (PD 6061)

**PD 240  
CONCEPTS IN PHYSICAL DEVELOPMENT (3CR)**

Physical fitness principles will be studied and practiced. The physical condition of each student will be individually analyzed enabling the student to develop a personal fitness schedule. 3 hrs./wk. (PD 4055)

**PD 245  
ELEMENTARY PHYSICAL EDUCATION (3CR)**

Elementary teachers will work on planning and evaluating physical education programs for their students. The class covers basic skills development and locomotion patterns, the nature of play and elementary physical education curriculum planning. 3 hrs./wk. (PD 1028)

**PD 255  
INTRODUCTION TO  
PHYSICAL EDUCATION (3CR)**

Here is an introduction to physical education, its history, philosophy, theory and practice. 3 hrs./wk. (PD 6340)

## **PHYSICAL SCIENCE**

**PSCI 120  
PHYSICAL SCIENCE (4CR)**

This class on the fundamentals of physics, chemistry, astronomy and geology meets laboratory science requirements for non-science majors. Topics include energy, electricity, magnetism, modern physics and chemical bonding. 2 hrs. lecture, 2-6 hrs. lab/wk., flexible scheduling. (NPS 1031)

**PSCI 122  
ASTRONOMY (4CR)**

This is a study of the universe — from the moon, planets and stars as seen in the night sky to the most distant galaxies. Topics include quasars, black holes, origin of the universe and the possibility of life on other planets. 4 hrs./wk., 5 nighttime telescope sessions (NPS 6070)

**PSCI 124  
HISTORY OF ASTRONOMY: COSMOS (3CR)**

Students will explore the relationships between earth, its inhabitants and the universe that surrounds them. Based on the television series COSMOS, written and hosted by Dr. Carl Sagan, the course examines the evolution of the universe, earth and humanity as well as the evolution of perceptions about them. 13 1-hour TV lessons, 3 2-hour discussions. (NPS 5034)

**PSCI 130  
GENERAL GEOLOGY (5CR)**

Students will study general geology of the earth and the processes that have shaped and continue to shape the earth. Subjects include the origin and composition of the earth, the solid earth, the atmosphere, the hydrosphere, the earth's resources and the interaction between humans and the geologic environment. 7 hrs./wk. (NAS 4858)

**PSCI 132  
HISTORICAL GEOLOGY (5CR)**

*Prerequisite: PSCI 130*  
HISTORICAL GEOLOGY provides a survey of the geological development of North America and the processes, environments and tectonics that occurred during the formation of the continent. Topics include the inter-relationships of various rock strata, stratigraphic geologic time, correlation, interpretation of geologic maps and identification of fossils. Course includes one day field trip. 7 hrs./wk.

**PSCI 148  
SCIENCE PROBLEMS  
ON THE COMPUTER (2CR)**

*Prerequisite: One college-level physical science or life science course*

Elementary skills in programming a microcomputer using BASIC language will be introduced. Problem-solving techniques will be developed. 1 hr. lecture, 2 hrs. lab/wk. (NPS 3084)

## **PHYSICAL THERAPY ASSISTANT**

**KPT 151  
INTRODUCTION TO PHYSICAL THERAPY (2CR)**

*Prerequisite: Pre-enrollment with program coordinator*

The student will be introduced to the basic concepts of the function of a physical therapist and a physical therapist assistant as members of the health team and the interaction of other health disciplines in the care of the patient. Medical terminology related to the specific discipline will be introduced also. Field trips to local hospitals included. 2 hrs. lecture/wk. (NPT 9770)

**KPT 152  
FUNDAMENTALS OF MODALITIES I (3CR)**

*Prerequisite: KPT 151 with a minimum grade of "C"*

The student will study basic medical terminology, description of modalities and therapeutic measures used in the physical treatment of various injuries and diseases. Emphasis is on department organization and orientation to position duties and job opportunities. Field trips will expose the student to hospital clinical facilities. Clinical labs will allow the student to be introduced to the practical application of all modalities used in the physical therapy clinic. 4 hrs. lecture, 2 hrs. lab/wk. (NPT 8847)

**KPT 153  
KINESIOLOGY (4CR)**

*Prerequisite: BIOL 120*

Students will analyze muscles and their functions, biomechanics of human motion, activities of joints and functions of the musculoskeletal system. 4 hrs./wk. (NPT 9772)

**KPT 155  
REHABILITATION (4CR)**

*Prerequisite: KPT 152*

The student will be introduced to the philosophy underlying rehabilitation, theory and principles involved in normal and abnormal ambulation and mobility. Emphasis is on external supports used in teaching activities of daily living. Attention will be given to description, demonstration and practice with various applications and devices necessary to assist the disabled. 2 hrs. lecture, 4 hrs. lab/wk. (NPT 9774)

**KPT 158  
THERAPEUTIC EXERCISE (5CR)**

*Corequisites: KPT 159, KPT 170 and KPT 171*

Students will be introduced to the theory and principles of mechanical appliances and equipment, shoulder wheels, pulleys, traction and exercise devices used by the disabled. Emphasis will be on muscle re-education, sensory stimulation, safety precautions and exercise as a treatment technique. 3 hrs. lecture, 4 hrs. lab/wk. (NPT 9775)

**KPT 159  
CLINICAL PATHOLOGY (3CR)**

*Corequisites: KPT 155, KPT 158, KPT 170 and KPT 171*

Students will study general pathology with detailed emphasis on the study of diseases and disease processes. 3 hrs./wk. (NPT 9776)

**KPT 161  
FUNDAMENTALS OF MODALITIES II (5CR)**

*Prerequisite: KPT 152*

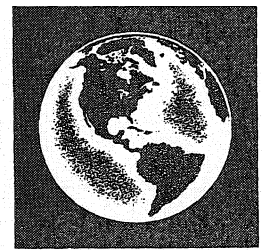
The student will be introduced to the theory and practical application of electrotherapy, hydrotherapy and therapeutic massage with emphasis on technique of application and indications and contra indications for use. The student also will observe in various local hospital physical therapy departments the practical application of therapeutic modalities and participate in the application of specific therapeutic modalities. 3 hrs. lab, 6 hrs. lecture/wk. (NPT 8848)

**KPT 170  
CLINICAL EXPERIENCE I (3CR)**

*Prerequisite: KPT 161*

*Corequisite: KPT 158, KPT 159*

The student will review practical application of principles learned in prior didactic seminars and take part in rotating internships in hospitals throughout greater Kansas City under the guidance of a registered physical therapist. 9 hrs. clinic/wk. (NPT 9777)



You will receive Dean's honors if you are enrolled in and complete a minimum of 12 credit hours and earn an overall grade point average of 3.0 or higher during any semester.

See the Career Programs section for details on JCCC's Occupational Therapy Assistant two-year program.

You need a counselor's approval before choosing the credit/no credit grading system.

Several nationally-known lecturers have appeared at JCCC including consumer advocate Ralph Nader and health and fitness expert Dr. Kenneth Cooper.



**KPT 171  
CLINICAL SEMINAR I (1CR)**

*Corequisite: KPT 158, KPT 159*  
While conducting student discussions, the program coordinator will evaluate the experience and programs of the students in CLINICAL EXPERIENCE I. 1 hr. lecture/wk. (NPT 9778)

**KPT 172  
CLINICAL EXPERIENCE II (11CR)**

*Prerequisites: KPT 155, KPT 158, KPT 170, KPT 171*  
The student will gain supervised clinical experience observing and applying techniques and procedures in all previous courses. Emphasis will be on assisting the physical therapist in the treatment procedures in a variety of clinical settings. 3 hrs. clinic/wk. (NPT 9779)

**KPT 173  
CLINICAL SEMINAR II (2CR)**

*Corequisite: KPT 172*  
The student will participate in informal discussion of ethical standards of practice in patient care. Students also will discuss their experiences in the clinical areas. Emphasis will be on review of techniques and clinical procedures. Guest lecturers will be featured. The student will receive CPR certification. 2 hrs. lecture/wk. (NPT 9780)

## PHYSICS

**PHYS 125  
TECHNICAL PHYSICS I (3CR)**

*Prerequisite: MATH 133*  
This is a study of selected topics in physics including motion, forces, energy, mechanical advantage, heat, friction, fluids and properties of matter. 2 hrs. lecture, 3 hrs. lab/wk. (EGR 7094)

**PHYS 126  
TECHNICAL PHYSICS II (3CR)**

*Prerequisite: PHYS 125*  
Subjects include momentum, wave motion, sound, light, atomic structure, static electricity and magnetism. 2 hrs. lecture, 3 hrs. lab/wk. (EGR 9017)

**PHYS 130  
GENERAL PHYSICS I (5CR)**

*Prerequisite: MATH 160*  
Selected topics in physics will be introduced — motion, energy, matter, thermodynamics and wave motion. 4 hrs. lecture, 3 hrs. lab/wk. Fall. (NPS 5213)

**PHYS 131  
GENERAL PHYSICS II (5CR)**

*Prerequisite: PHYS 130*  
In this continuation of GENERAL PHYSICS I, topics include electricity, magnetism, light, atomic and nuclear structure, quantum theory, relativity and particle physics. 4 hrs. lecture, 3 hrs. lab/wk. (NPS 3309)

**PHYS 220  
ENGINEERING PHYSICS I (5CR)**

*Corequisite: MATH 242*  
This is an introduction to physics for engineering and science students. Included will be mathematical approaches to the study of mechanics, wave motion and thermodynamics. 4 hrs. lecture, 3 hrs. lab/wk. Fall. (NPS 5212)

**PHYS 221  
ENGINEERING PHYSICS II (5CR)**

*Prerequisite: PHYS 220*  
Electricity and magnetism, light and topics in modern physics will be addressed. 4 hrs. lecture, 3 hrs. lab/wk. Spring. (NPS 5238)

## POLITICAL SCIENCE

**POLS 122  
POLITICAL SCIENCE (3CR)**

This introductory course examines social relationships between people, power and politics. Modern political ideologies such as classical liberalism, capitalism, socialism and fascism are studied as well as contemporary forms of political organization, participation, decision-making and political economy. 3 hrs./wk. (SS 1456)

**POLS 124  
AMERICAN NATIONAL GOVERNMENT (3CR)**

The theoretical, political and administrative aspects of American government will be surveyed. Topics include the Constitution; political parties; the executive, legislative and judicial branches; and public policy formulation and implementation. 3 hrs./wk. (SS 3138)

**POLS 126  
STATE AND LOCAL GOVERNMENT (3CR)**

State and local government theories and practices will be surveyed with special emphasis on Kansas. Topics include structure of these governments, intergovernmental relations, types of services, taxing and budgeting processes, the role of the citizen and possible reforms. Speakers, field trips and projects are features of the class. 3 hrs./wk. (SS 2678)

**POLS 132  
INTRODUCTION TO  
COMPARATIVE GOVERNMENT (3CR)**

In this introduction to the comparative study of political systems, students will examine ideology and socio-economic institutions. They also will look at decision-making structures in competitive and non-competitive political systems, industrially-developed and industrializing nations, and Western and non-Western nations. 3 hrs./wk. (SS 5852)

**POLS 135  
INTERNATIONAL RELATIONS (3CR)**

Nation states and the factors which affect international relationships will be analyzed. Other areas of interest



include the role of power, law and ideology; the effectiveness of international organizations; private diplomacy; collective security; and war. Current topics in international politics will be used as case studies. 3 hrs./wk. (SS 2808)

**POLS 176  
GREAT DECISIONS I:  
ISSUES IN U.S. FOREIGN POLICY (1CR)**

Current international political and social issues will serve as topics in this class. 1 hr./wk. (SS 3656)

**POLS 298  
U.S. AND THE U.S.S.R.:  
TRAVEL FOR CREDIT (3CR)**

In this comparison of Soviet and American societies, students will focus on histories; current social, economic and political conditions; educational systems; and the arts. The class consists of readings, discussions and trips to theaters, museums, cathedrals, schools, and cultural and historical sites. 15 hrs. lecture, 160 hrs. travel. (SS 1697)

## **PSYCHOLOGY**

**PSYC 121  
APPLIED PSYCHOLOGY (3CR)**

How students can use psychological principles to better understand themselves and others will be the emphasis of this course. Topics include popular approaches to psychological problems; interpersonal relationships; common emotional problems; and the student's view of self, values and goals. The course also will show how psychology applies to other disciplines and social institutions. 3 hrs./wk. (SS 5191)

**PSYC 124  
HUMAN POTENTIAL SEMINAR (3CR)**

This is a structured group experience designed to increase self-affirmation, self-motivation, self-determination and empathetic regard for others. It includes analysis of achieving satisfaction and success, clarification of personal values, acknowledgment of personal strengths and long-range goal setting. Regular attendance is imperative. 3 hrs./wk. (SS 2002)

**PSYC 127  
CAREER/LIFE PLANNING (3CR)**

This is a systematic approach to career/life planning in which students will focus on a process for making occupational decisions at any point in their lives. 3 hrs./wk. (SS 7227)

**PSYC 130  
INTRODUCTION TO PSYCHOLOGY (3CR)**

This is an introduction to general psychology. Topics include the biological aspects of behavior, the brain, consciousness, sensation, perception, motivation, emotion, stress, maturation and development, learning and memory, normal and abnormal personality,

and social psychology. This course is a prerequisite for other courses in psychology. 3 hrs./wk. (SS 1068)

**PSYC 210  
METHODOLOGY IN THE  
SOCIAL SCIENCES (3CR)**

*Prerequisite: PSYC 130 or SOC 122 or ECON 230*

This course deals with scientific research methods in psychology, sociology and other social sciences involving the analysis of behavior. A wide range of data collection methods — from questionnaire methods to controlled experimentation — are examined. 3 hrs./wk. (SS 2737)

**PSYC 215  
CHILD DEVELOPMENT (3CR)**

*Prerequisite: PSYC 130*

The psychological development of humans from conception through adolescence will be traced in this course. Students will study how genetic, biological, physiological and anthropological factors influence the psychological process. The role heredity and environment play in development will be analyzed. 3 hrs./wk., 20 hrs. practicum in a structured setting where children are present is required. (SS 3546)

**PSYC 220  
SOCIAL PSYCHOLOGY (3CR)**

*Prerequisite: PSYC 130*

How human thought, feeling and behavior are influenced by the actual, imagined or implied presence of others will be explored in this class. Topics include social influence, attitude formation and attitude change, social attitudes and prejudice, conformity and deviation, socialization and personality, aggression, leadership and group dynamics. 3 hrs./wk. (SS 5663).

**PSYC 225  
EDUCATIONAL PSYCHOLOGY (3CR)**

*Prerequisite: PSYC 130*

The psychology of learning-teaching situations will be addressed. Areas covered include behavior, skills, memory, generalization of learning, assessment and measurement of learning, and intelligence. A practicum in a structured setting is required. 3 hrs./wk. (SS 3148)

**PSYC 230  
PERSONALITY THEORY (3CR)**

*Prerequisite: PSYC 130*

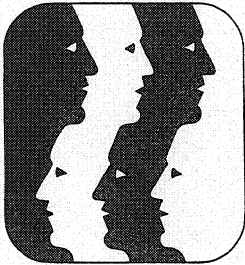
Three general viewpoints or paradigms in psychology will be studied with emphasis on each system's contribution to understanding human personality and its contribution to our response to everyday problems. 3 hrs./wk. (SS 4639)

*You are considered a freshman if you have earned fewer than 26 credit hours.*



*Exhibitions of artwork by commercial art students are held regularly on the second floor of EMC.*

The Adults Unlimited program publishes a newsletter for men and women returning to college.



A full-time student is one with a course load of 12 or more credit hours per semester.

**PSYC 235  
TRANSPERSONAL PSYCHOLOGY (3CR)**

*Prerequisite: PSYC 130*

Human potential and capacity beyond the usual state of consciousness will be explored in this class. Students will consider assumptions, consciousness, mystical experiences, spirit, interpersonal encounter, extrasensory phenomena, ultimate values and eternal meanings. Experiential exercises to assist the integration of body, mind and spirit will be included. 3 hrs./wk. (SS 9022)

**RADIOLOGIC TECHNOLOGY**

**KRAD 169  
MEDICAL AND RADIOLOGY TERMS (3CR)**

*Prerequisite: Admission to the program*

Students will study medical terminology — especially technical terminology — used in radiology procedures. 3 hrs./wk. (NRD 9801)

**KRAD 170  
RADIOLOGICAL TECHNOLOGY I (3CR)**

*Prerequisite: Admission to the program*

Radiation biology, radiation protection and monitoring, professional attitudes and ethics are among the topics covered. Special attention will be paid to emergency procedures in the radiology department. 3 hrs./wk. (NRD 9802)

**KRAD 171  
RADIOGRAPHIC EXPOSURES I (3CR)**

*Prerequisite: Admission to the program*

Radiographic image formation and the factors affecting or controlling it will be examined. Students will conduct related experiments. 4 hrs./wk. (NRD 9803)

**KRAD 172  
RADIOGRAPHIC POSITIONING I (3CR)**

*Prerequisite: Admission to the program*

This is a study of anatomy and positioning for the abdomen, chest, upper and lower extremities, upper gastrointestinal track, colon, gallbladder/biliary tract and kidney. 4 hrs./wk. (NRD 9804)

**KRAD 173  
CLINICAL TRAINING I (2CR)**

*Prerequisite: Admission to the program*

This class offers training in basic radiographic examinations and related tasks. The student will be expected to perform six examinations unassisted by the end of the term. 26 hrs. lab/wk. (NRD 9805)

**KRAD 174  
RADIOGRAPHIC EXPOSURES II (3CR)**

*Prerequisite: KRAD 171*

Topics include quality control of radiographic images; technique charts; calibration of equipment; standard exposure systems; and special techniques used in producing radiographic images. 4 hrs./wk. (NRD 9806)

**KRAD 175  
CLINICAL TRAINING II (2CR)**

*Prerequisites: KRAD 169, KRAD 170, KRAD 171, KRAD 172, KRAD 173*

This training focuses on upper and lower extremities, cervical, thoracic and lumbar spine, ribs, skull and mammographic examinations. The student must be able to perform six examinations unassisted by the end of the term. 26 hrs. lab/wk. (NRD 9807)

**KRAD 176  
RADIOGRAPHIC POSITIONING II (3CR)**

*Prerequisite: KRAD 172*

This class covers anatomy and positioning related to the upper and lower extremities, the vertebral column and thorax and includes mammography. 4 hrs./wk. (NRD 9808)

**KRAD 178  
CLINICAL TRAINING III (1CR)**

*Prerequisites: KRAD 174, KRAD 175, KRAD 176*

Training in this course continues in examining the ribs, cervical, thoracic and lumbar spine, gallbladder, biliary system and retrograde pyelograms and infusion pyelograms using tomography. Students will be assigned to evening training sessions during the summer. Average 24 hrs./wk. (NRD 9815)

**KRAD 278  
RADIOLOGIC TECHNOLOGY II (3CR)**

*Prerequisites: ANAT 144, KRAD 170*

First students will study the disease processes of the body, then they will relate them to patient examinations in the radiology department. 3 hrs./wk. (NRD 9810)

**KRAD 279  
RADIOGRAPHIC POSITIONING III (3CR)**

*Prerequisite: KRAD 176*

Students will study methods of positioning the trauma patient as well as anatomy and positioning for the skull, sinuses, facial bones and teeth. Emphasis is on special views of the skull. 3 hrs. lecture, 1 hr. lab/wk. (NRD 9809)

**KRAD 280  
CLINICAL TRAINING IV (2CR)**

*Prerequisite: KRAD 178*

Students will examine the skeletal system in this class. Training opportunities in portable radiography, emergency room techniques and supervised fluoroscopy will be provided. Students will be expected to perform with limited supervision all the exams they have shown competence in as well as six new exams by the end of the term. 20 hrs./wk. (NRD 9816)

**KRAD 281  
PHYSICS OF X-RAY EQUIPMENT (4CR)**

*Prerequisites: PSCI 120, KRAD 174*

Students will apply the principles of physics to the study of X-ray equipment and other diagnostic imaging devices used in the X-ray department. 5 hrs./wk. (NRD 9811)

**KRAD 282  
CLINICAL TRAINING V (2CR)**

*Prerequisites:* KRAD 279, KRAD 280

Students will receive training in the areas in which they show need and will be expected to perform, under limited supervision, most department examinations. They also will begin rotation through specialty areas. 20 hrs./wk. (NRD 9817)

**KRAD 283  
FINAL SEMINAR (3CR)**

*Prerequisites:* KRAD 278, KRAD 281, KRAD 282, KRAD 285

Students will prepare for the National Registry examination by using tests and review materials designed to simulate the ARRT examinations. 3 hrs./wk. (NRD 9813)

**KRAD 284  
CLINICAL TRAINING VI (1CR)**

*Prerequisites:* KRAD 172, KRAD 281, KRAD 282

Students will be assigned training in areas of special need and will be evaluated on their specialty rotation areas. 24 hrs./wk. (NRD 9818)

**KRAD 285  
SPECIAL PROCEDURES (3CR)**

*Prerequisite:* ANAT 144, KRAD 176

This course covers anatomy, positioning, equipment and special tasks related to the circulatory, nervous and lymphatic systems. The role of the technologist will be stressed. 3 hrs./wk. (NRD 8012)

**KRAD 287  
CLINICAL TRAINING VII (3CR)**

*Prerequisites:* KRAD 283, KRAD 284, KRAD 285

Students will complete evaluations for remaining exams and skills and will make final preparation to enter the field as registered technologists. They also will be assigned to all areas of the department on a rotation basis and rotate to an affiliate hospital radiology department. 39 hrs./wk. (NRD 9819)

**KRAD 288  
SPECIALTY TRAINING (ELECTIVE) (9CR)**

*Prerequisite:* Approval of program director

This class offers additional training in one of the following areas: nuclear medicine, ultrasound, radiation therapy, thermography or computer-assisted tomography, or management/supervision. 1 hr. lecture, 16 hrs. lab/wk. (NRD 9820)

**RECREATIONAL LEADERSHIP**

**RECL 121  
INTRODUCTION TO RECREATIONAL SERVICES (3CR)**

The historical and philosophical foundations of leisure and recreational activities will be explored. Emphasis will be on socioeconomic movements, the economic importance of recreation and social institutions which provide recreational services. 3 hrs./wk. (PRL 5298)

**RECL 123  
SOCIAL RECREATION (2CR)**

Students will have the opportunity to develop their individual strengths in this class on planning, programming and conducting social recreational activities for clubs, churches, schools, playgrounds and recreation centers. 3 hrs./wk. (PRL 2459)

**RECL 125  
OUTDOOR RECREATION (3CR)**

The history and development of and trends in outdoor recreation, conservation and organized camping will be reviewed. The class also consists of lab work focusing on the development of camping skills. 3 hrs./wk. (PRL 7164)

**RECL 130  
INTRODUCTION TO  
THERAPEUTIC RECREATION (3CR)**

Students will become acquainted with the recreational needs of the ill, handicapped and other special groups. Emphasis will be on where therapeutic recreation is available. The instructor will demonstrate and the class will take part in activities designed for different disabilities. 3 hrs./wk. (PRL 2571)

**RECL 271  
RECREATIONAL FIELD STUDY (3CR)**

In this class, students will work as recreation leaders in a local agency, hospital or institution. 1 hr. class, a minimum of 15 hrs. supervised laboratory by arrangement/wk. (PRL 1379)

**RESPIRATORY THERAPY**

**RT 125  
BEGINNING PRINCIPLES  
OF RESPIRATORY THERAPY (4CR)**

*Prerequisite:* Admission to the Respiratory Therapy program

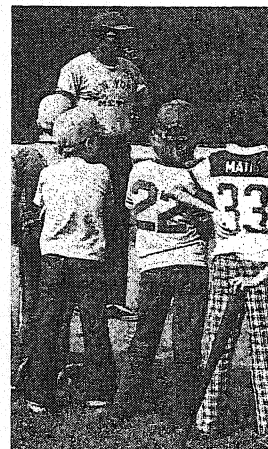
This is an introduction to respiratory therapy. Students will focus on basic anatomy, physiology, pathophysiology and respiratory therapy techniques needed in the care of pulmonary disease patients. Students will have contact with patients after two to three weeks of introductory material. Lab time also is scheduled. 6 hrs. lecture, 16 hrs. lab/wk. Summer. (NRT 3370)

**RT 130  
RESPIRATORY THERAPY EQUIPMENT (4CR)**

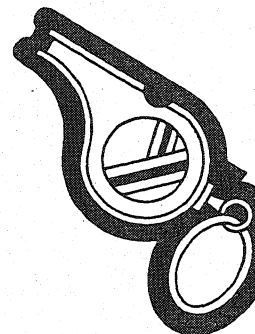
*Prerequisite:* Admission to the Respiratory Therapy program

The equipment used in providing basic patient care will be introduced. Topics include equipment for oxygen therapy, aerosol therapy and IPPB. Students gain hands-on experience in the lab before actually treating patients. 6 hrs. lecture, 8 hrs. lab/wk. Summer. (NRT 3371)

*Recreational Leadership courses require no pre-requisites.*

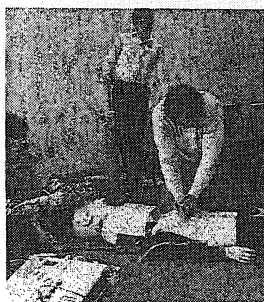


*Before you may enroll in RT 125, RT 130 or RT 135, you must be admitted into the Respiratory Therapy Program.*



You will be given an "Incomplete" grade only when special circumstances prevent you from completing the course work during the semester.

In the college work study program, students work part-time on campus at minimum wage.



### **RT 135 CARDIOPULMONARY MEDICINE I (1CR)**

*Prerequisite: Admission to the Respiratory Therapy program*

This is the first of three courses in which the medical director of the program lectures. This will be an introduction to the diagnostic procedures used by the pulmonary physician in evaluating patients with respiratory disease. The class also provides information on the pathology of disease states the student will encounter. 2 hrs. lecture/wk. Summer. (NRT 3372)

### **RT 220 CLINICAL CARDIOPULMONARY PHYSIOLOGY (4CR)**

*Prerequisite: Successful completion of summer sequence of respiratory therapy courses*

This is a comprehensive study of the physiology and pathophysiology of the pulmonary, cardiovascular and renal systems as they relate to respiratory therapy. 2 hrs. lecture/wk. Fall. (NRT 3373)

### **RT 230 CLINIC TOPICS AND PROCEDURES I (3CR)**

*Prerequisite: Successful completion of summer sequence of respiratory therapy courses.*

In this lecture and lab course, students will focus on basic care, emergency care, mechanical ventilators and critical care. 2 hrs. lecture, 3 hrs. lab/wk. Fall. (NRT 3375)

### **RT 231 CLINIC TOPICS AND PROCEDURES II (4CR)**

*Prerequisite: Successful completion of the fall sequence of respiratory courses*

Critical care and more sophisticated aspects of respiratory therapy will be emphasized in this lab/lecture course. Medical ethics and department management will be covered. 3 hrs. lecture, 3 hrs. lab/wk. Spring. (NRT 3379)

### **RT 233 RESPIRATORY CARE OF CHILDREN (2CR)**

*Prerequisite: RT 230*

Focus is on the respiratory care of neonatal and pediatric patients with emphasis on the management of cardio-pulmonary disease states unique to children. Information is based on developmental anatomy and physiology pathology, diagnostic/laboratory procedures, and equipment manipulation in acute, chronic, critical and emergency care settings. 2 hrs. lecture/wk.

### **RT 235 CARDIOPULMONARY MEDICINE II (2CR)**

*Prerequisite: Successful completion of summer sequence of Respiratory Therapy courses*

This is a continuation of the series taught by the medical director of the program emphasizing disease states of the cardiopulmonary system. Discussion covers the pathology, diagnosis and treatment of various diseases and the role of the respiratory

therapist in the medical management of these patients. 2 hrs.lecture/wk. Fall. (NRT 3376)

### **RT 236 CARDIOPULMONARY MEDICINE III (2CR)**

*Prerequisite: Successful completion of the fall sequence of respiratory therapy courses*

This is a continuation of the medical director's discussion of pulmonary diseases, their pathology and their treatment. 2 hrs. lecture/wk. Spring. (NRT 3380)

### **RT 240 RESPIRATORY PHARMACOLOGY (2CR)**

*Prerequisite: Successful completion of the fall sequence of respiratory therapy courses*

This class presents all the pharmacology respiratory therapists provide plus a general study of most of the drugs used in the care of patients with cardiopulmonary problems. Drugs administered during a code blue also are stressed. 2 hrs. lecture/wk. Fall. (NRT 3377)

### **RT 271 CLINICAL PRACTICE I (4CR)**

*Prerequisite: Successful completion of summer sequence of respiratory therapy courses*

In the first eight-week period, students will give basic care to adults and children. In the second eight-week period, they will concentrate on critical care medicine giving treatments in the intensive care unit. Also during the semester students will learn to intubate under the guidance of anesthesia personnel, will go on rounds with the medical director of the program and will focus on performing arterial punctures. 24 hrs. clinic/wk. Fall. (NRT 3374)

### **RT 272 CLINICAL PRACTICE II (4CR)**

*Prerequisite: Successful completion of the fall sequence of respiratory therapy courses*

Two eight-week quarters will emphasize critical care of adults and newborns. Students will participate in rehabilitation, department management, intubations and medical rounds rotations. 24 hrs./wk. Spring. (NRT 3378)

## **SECRETARIAL CAREERS**

### **SEC 101 KEYBOARDING (1CR)**

Here is a course for data processing students who cannot touch type and for employees in medicine, law, sales, travel, education and other areas who need keyboard skills. The class will stress accuracy at the keyboard in alpha, numeric and symbol keys. 17 hrs. instruction (BSC 4137)

### **SEC 105 SHORTHAND REFRESHER: SHORT COURSE (1CR)**

Theory and vocabulary will be reviewed as students work on increasing their speed. 1 hr./wk. (BSC 3018)



**SEC 110  
BEGINNING TYPING (3CR)**

Students will work on keyboard and machine techniques as they concentrate on personal and business letters, outlines, manuscripts, tabulation and centering. The class consists of group as well as individualized instruction and scheduled use of the secretarial lab. 3 hrs. class, 2 hrs. lab/wk. (BSC 1263)

**SEC 122  
INTERMEDIATE TYPING (3CR)**

*Prerequisite: SEC 110*

Speed and accuracy will be emphasized in typing business letters, memos, tabulated reports and financial reports. Class consists of group as well as individual instruction and scheduled use of the secretarial lab. 3 hrs. class, 2 hrs. lab/wk. (BSC 2376)

**SEC 125  
SHORTHAND I (3CR)**

*Prerequisite or corequisite: SEC 110*

Students will concentrate on shorthand theory and writing familiar, previewed material in shorthand at a rate of 40-60 words per minute. In addition to the introduction of shorthand theory by the instructor, each student will use a series of tapes and other materials to reinforce theory rules. 3 hrs. class, 2 hrs. lab/wk. (BSC 1519)

**SEC 126  
SHORTHAND II (3CR)**

*Prerequisite: SEC 125*

This is a class for students with knowledge of basic shorthand theory. It consists of a review of shorthand theory, transcription techniques, spelling, punctuation and grammar through tapes and materials. Students will work to develop shorthand dictation speeds from 60-100 words per minute. 3 hrs. class, 2 hrs. lab/wk. (BSC 4590)

**SEC 130  
STENOSCRIP SPEEDWRITING  
SHORTHAND (3CR)**

This course is for secretaries who need to quickly learn dictation skills and for students who must take notes in class. Students will begin taking dictation using abbreviated shorthand after the second session. It is possible to work up to 80-90 words per minute by the end of the course. Areas covered include theory, practice, speedbuilding and transcription. 3 hrs. lecture, 2 hrs. lab/wk. (BSC 3325)

**SEC 131  
STENOSCRIP DICTATION  
TRANSCRIPTION (3CR)**

*Prerequisite: SEC 130*

Students who have completed STENOSCRIP SPEEDWRITING SHORTHAND can practice additional speed dictation and transcription in this class. All brief forms, abbreviations, spelling and punctuation will be reviewed and students will practice dictation, produce mailable transcripts and work on

reaching speeds of 100-120 words per minute. 3 hrs./wk. Students will schedule 2 hrs. lab/wk. (BSC 2732)

**SEC 135  
ELECTRONIC CALCULATORS (1CR)**

In this class, students will concentrate on operating an electronic printing calculator, interpreting and recording answers, and solving arithmetic problems. The goal is to develop a high degree of proficiency in touch operation, speed and accuracy. 1 hr. /wk. Students will schedule 1 hr. lab/wk. (BSC 5190)

**SEC 136  
RECORDS MANAGEMENT (3CR)**

Alphabetic, numeric, subject and geographic filing systems will be covered in this class on office routines and efficient methods and systems for storing and retrieving information. Various types of office filing equipment also will be surveyed. 3 hrs./wk. (BSC 1342)

**SEC 140  
LEGAL SECRETARY (2CR)**

This class covers topics recommended by the National Association of Legal Secretaries, including an overview of the field of law as it applies to the legal secretary. Students wishing to prepare for the PLS examination should consult the instructor before enrolling. 2 hrs./wk. (BSC 2267)

**SEC 142  
LEGAL TRANSCRIPTION (3CR)**

*Prerequisite: SEC 122*

This course is designed to acquaint students with legal terminology including correct spelling and use of legal terms and Latin words and phrases and provide intensive practice in building speed and accuracy in the transcription of legal terms. (BSC 2503)

**SEC 221  
PRODUCTION TYPING (3CR)**

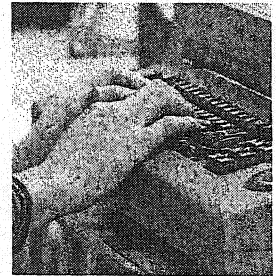
*Prerequisite: SEC 122*

A high degree of proficiency in production typing will be the emphasis in this course as students work on typing for medical, legal and governmental and other specialized offices. Class consists of individual instruction and scheduled use of the lab. 3 hrs. class, 2 hrs. lab/wk. (BSC 7633)

**SEC 223  
MACHINE TRANSCRIPTION (3CR)**

*Prerequisite: SEC 122*

Students will use dictation equipment extensively as they work on transcribing business letters, memos and technical reports, news releases, agendas and minutes. Medical and legal terminology and other special fields will be emphasized. Students also will work on developing language skills through correct word division, punctuation, grammar and number transcription exercises. 3 hrs./wk. Students will schedule 2 hrs. lab/wk. (BSC 5189)



*For word processing classes, see Information/Word Processing.*

*You will receive a 100 percent refund of tuition and fees if your withdrawal is received by the Admissions Office before - no on - the first day of the semester.*

The core courses in JCCC's two-year Small Animal Health program are offered at Maple Woods Community College.



Undecided? A counselor can help you decide which major to select.

**SEC 225  
DICTATION AND TRANSCRIPTION (3CR)**

*Prerequisite:* SEC 122 and SEC 126

Students will focus on increasing their speed and accuracy writing from dictated material and transcribing notes. An instructor will lead the class but students will study on their own, using materials geared to their individual abilities. Transcription speeds range from 80-120 words per minute. 3 hrs. class, 2 hrs. lab/wk. (BSC 3630)

**SEC 230  
SECRETARIAL PROCEDURES I (3CR)**

*Prerequisite or corequisite:* SEC 122

This is an introduction to all phases of the office from a secretarial standpoint including word processing; written communication; transmittal services; records management; travel and conferences; collecting, processing and presenting business data; and financial and legal work. The Certified Professional Secretary exam also will be covered. 3 hrs./wk. (BSC 1272)

**SEC 231  
SECRETARIAL PROCEDURES II (3CR)**

*Prerequisite:* SEC 230

Students will have the opportunity to apply the skills they studied in SECRETARIAL PROCEDURES I in this class. Through simulated office situations and projects, the class will address these areas: meetings and conferences, travel arrangements, letter writing, supervision, reproduction equipment and services, seeking and terminating employment. The student may follow a medical, legal or general sequence. 3 hrs./wk. (BSC 2317)

**SEC 271  
MANAGEMENT SEMINAR (2-3CR)**

Under supervision, students will work in an approved office situation. Concepts, terminology, principles and theories of management will be introduced. A minimum of 15 hrs. on-the-job training by arrangement/wk. (BSC 3857)

**SEC 274  
HUMAN RELATIONS SEMINAR (2-3CR)**

Under supervision, students will work in an approved office situation. Focus will be on an analysis of the process which brings workers into contact with the organization in such a way that the objective of both can be achieved. A minimum of 15 hrs. on-the-job training by arrangement/wk. (BSC 3858)

**SEC 276  
ADMINISTRATIVE OFFICE  
MANAGEMENT SEMINAR (2-3CR)**

Students will work under supervision in an approved office situation. Focus will be on the process of planning, organizing, directing, coordinating and controlling office activities. A minimum of 15 hrs. on-the-job training by arrangement/wk. (BSC 3859)

**SEC 279  
BUSINESS LAW SEMINAR (2-3CR)**

Students will work under supervision in an approved office situation. Emphasis is on the basic principles of business law using the case study method. A minimum of 15 hrs. on-the-job training by arrangement/wk. (BSC 3861)

## SMALL ANIMAL HEALTH

**KSAH 100  
INTRODUCTION TO ANIMAL  
TECHNOLOGY (2CR)**

This is an introduction to career opportunities; professional ethics; public relations; the emotional aspect of treating animals; euthanasia; venapuncture; injections; animal sterilization; and attitudes toward research animals. 2 hrs./wk. (NAT 4894)

**KSAH 101  
PRINCIPLES OF ANIMAL SCIENCE I (3CR)**

The handling and management of animals, nutrition, housing and sanitation are among the major areas this class covers. Emphasis will be on animal physiology and body responses. Also introduced will be anesthesia and management of hospital cases; methods of treatment; restraint; determination of body temperature, pulse and respiration. 4 hrs./wk. (NAT 6897)

**KSAH 108  
CLINICAL MATH (1CR)**

Students will review the metric system and conversion units; apothecaries' equivalents; vocabulary; preparation of solutions; drug administering; calculating and measuring dosages; and other areas. 1 hr./wk. (NAT 7896)

**KSAH 110  
PRINCIPLES OF ANIMAL SCIENCE II (3CR)**

*Prerequisite:* KSAH 101

Techniques for obtaining animal samples for laboratory analysis will be introduced. The class also offers information on surgery preparations and anesthetic management of animals. Emphasis will be on effects of anesthetics and physiology of body systems not covered in ANIMAL SCIENCE I. 4 hrs./wk. (NAT 3899)

**KSAH 111  
SANITATION AND ANIMAL CARE (2CR)**

Topics include cleaning and sanitation; personal hygiene; vermin recognition; cleaning cages and equipment; care and supervision of patients or colonies; diet; feeding animals; work routines; and daily operating procedures. 3 hrs./wk. (NAT 1895)

**KSAH 120  
CLINICAL PATHOLOGICAL  
TECHNIQUES I (4CR)**

The analysis of urine, blood and feces will be introduced along with the preparation of smears and

staining techniques. Other topics include hematology, differentiation of blood cells and serum chemistries. 7 hrs./wk. (NAT 2901)

**KSAH 200  
ANIMAL HOSPITAL TECHNOLOGY I (3CR)**

The focus in this class is on hypodermic injections, vaccines, colonic irrigations, wound dressings, parenteral fluids, oral substances, intrauterine infusions, intramammary gland infusions and other mastitis therapy, and radiographic film processes. Students will administer anesthetics and assist the surgeon during operations. 5 hrs./wk. (NAT 5903)

**KSAH 202  
ANIMAL TECHNOLOGY ANATOMY (5CR)**

Physiology, pharmacology, pathology and parasitology within the framework of animal body systems will be explored in this class. 7 hrs./wk. (NAT 4904)

**KSAH 203  
LABORATORY ANIMAL TECHNOLOGY (2CR)**

*Prerequisite: KSAH 101, KSAH 110, KSAH 120*

In this class the student will focus on the care, handling, restraint, sanitation and diseases of the laboratory animal species. The class will provide the training necessary to handle supervisory positions in laboratory animal colonies. 3 hrs./wk. (NAT 3905)

**KSAH 210  
ANIMAL HOSPITAL TECHNOLOGY II (3CR)**

*Prerequisite: KSAH 200*

In this continuation of ANIMAL HOSPITAL TECHNOLOGY, students will study orthopedic procedures, electrocardiography, pharmacology and anesthesia. Lab exercises will cover surgical assisting, blood transfusion, anesthetic emergencies, bandaging and fluid therapy. 5 hrs./wk. (NAT 6906)

**KSAH 211  
CLINICAL PATHOLOGICAL  
TECHNIQUES II (5CR)**

*Prerequisite: KSAH 120*

This class consists of advanced work in hematology and serum chemistries with emphasis on evaluation of laboratory specimens and the basis of clinical chemistries. 8 hrs./wk. (NAT 6004)

**KSAH 212  
LARGE ANIMAL TECHNOLOGY (4CR)**

*Prerequisite: KSAH 101 and KSAH 110*

In this class, students will concentrate on how to handle and restrain large animals; oral and parenteral medications; blood collection; sanitation; and housing. The diseases affecting large animals and preventive medicine also will be explained. 6 hrs./wk. (NAT 6006)

**KSAH 213  
RADIOLOGY AND  
ELECTRONIC PROCEDURES (2CR)**

This class involves intensive study and practice in radiological techniques. Areas addressed include positioning, exposure, developing, establishing a technique chart, evaluation of technical errors, studies in contrast radiography, theory of radiology, types of machines, films and cassettes, and radiation safety. 3 hrs./wk. (NAT 8909)

**KSAH 214  
ANIMAL HEALTH INTERNSHIP (6CR)**

*Prerequisite: Two semesters of first-year animal health courses*

This intensive clinical study will take part under the supervision of a cooperating veterinarian. 420 work hrs. (NAT 1902)

## SMALL ENGINE

**SMEG 125  
BASIC SMALL ENGINE SERVICE (3CR)**

Among areas examined in this class are four-stroke cycle and two-stroke cycle engines; lubricating, cooling, fuel and governor systems; trouble-shooting engine problems; inspecting engine components; and servicing the fuel, cooling and exhaust systems. 2 hrs. lecture, 3 hrs. lab/wk. (TSE 7240)

**SMEG 127  
SMALL ENGINE ELECTRICAL SYSTEMS (3CR)**

*Prerequisite: SMEG 125*

Topics include types of current; relationship between electricity and magnetism; types of electrical circuits; and servicing the ignition system among other areas. 2 hrs. lecture, 3 hrs. lab/wk. (TSE 7241)

## SOCIOLOGY

**SOC 122  
SOCIOLOGY (3CR)**

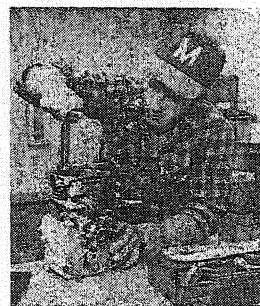
This overview of social life covers group structure and processes, social interaction and examination of major institutions. Theories, methods of study and uses of social research will be examined. 3 hrs./wk. (SS 3404)

**SOC 125  
SOCIAL PROBLEMS (3CR)**

Selected social problems — from crime to drug abuse — will be analyzed. The history and development of each problem will be examined from a variety of perspectives as well as possible solutions. 3 hrs./wk. (SS 3428)



*None of the Sociology courses require pre-requisites.*



*The Student Development and Counseling Division offers workshops on test anxiety, self-defeating behaviors and other helpful topics.*

The Little Theater is located on the second floor of GEB.



The lights for stage productions of the Theater Department are run by a computer system, the first of its kind being used in the area.

**SOC 131  
MARRIAGE AND THE FAMILY (3CR)**

This is an examination of the institutions of marriage and family. It will emphasize changing roles, family formation, socialization, domestic conflict, interaction among family members and marriage partners, and the relationship among marriage and family and society. 3 hrs./wk. (SS 5716)

**SOC 146  
SOCIAL WELFARE (3CR)**

Social welfare and its relationship to other social systems in America will be introduced. The social, economic and political factors that foster inequality will be examined as well as social welfare as a response to social deprivation. 3 hrs./wk. (SS 4122)

**SOC 147  
SOCIAL WORK AND SOCIAL SERVICES (3CR)**

Students will study social work as a profession in this class. Origins, values, skills, fields of service and current issues in the field of social work will be analyzed. 3 hrs./wk. (SS 4123)

**SOC 152  
PERSPECTIVES ON AGING (3CR)**

The social aspects of aging will be identified in this class. Areas of special interest include research themes and demographic trends; aging and its relationship to family, economy, politics, religion and education; the effect of cultural values on behavior; and the future of the elderly. 3 hrs./wk. (SS 2733)

## **SPEECH**

**SPD 120  
INTERPERSONAL COMMUNICATION (3CR)**

In this basic speech course, students will study the principles of effective communication in one-to-one relationships and in small groups. They will apply these principles in a variety of learning exercises and situations. Individualized talks may be given but everyday communication is stressed. 3 hrs./wk. (CSP 4950)

**SPD 121  
PUBLIC SPEAKING (3CR)**

This fundamental speech course emphasizes speech organization, development of ideas, audience analysis and delivery. Students will deliver informative and persuasive speeches in the impromptu, extemporaneous and manuscript styles. 3 hrs./wk. (CSP 4130)

**SPD 122  
GROUP DISCUSSION (3CR)**

Students will participate in small groups to study the principles of effective group dynamics and leadership skills and practice these principles in class. 3 hrs./wk. Spring. (CSP 1150)

**SPD 130  
ELEMENTARY DEBATE (3CR)**

Theories of argumentation and debate will be introduced. Students will attend 2-8 weekend intercollegiate debate tournaments a semester. 3 hrs./wk. (CSP 5545)

**SPD 132  
INTERMEDIATE DEBATE I (3CR)**

*Prerequisite: SPD 130 or equivalent*

This is a continuation of argumentation and debate theories. Students will attend 2-8 weekend intercollegiate debate tournaments a semester. 3 hrs./wk. (CSP 2162)

**SPD 230  
INTERMEDIATE DEBATE II (3CR)**

*Prerequisite: SPD 132 or equivalent*

Intercollegiate debates will be stressed in this review of argumentation and debate theories. Students will attend 2-8 weekend debate tournaments a semester. 3 hrs./wk. (CSP 1001)

**SPD 235  
ADVANCED DEBATE (3CR)**

*Prerequisite: SPD 230 or equivalent*

Students will participate on the senior level in intercollegiate debate, attending 2-8 debate tournaments a semester. 3 hrs./wk. (CSP 6651)

**SPD 298  
INTERCULTURAL COMMUNICATION: GREAT  
BRITAIN AND THE UNITED STATES (3CR)**

In this travel-for-credit course, students will visit selected cities in Great Britain where they will compare British and U.S. languages, values and institutions. Offered periodically. (CSP 5323)

## **THEATER**

**THEA 120  
INTRODUCTION TO THEATER (3CR)**

Students will be introduced to a variety of theatrical experiences. They will read great plays. They also will see television, film and live theater presentations, and discuss theater practices, dramatic structure and history of the theater. 3 hrs./wk. (CDR 1809)

**THEA 123  
IMPROVISATION FOR THEATER (1CR)**

Theater improvisation will be introduced in this class which emphasizes creative stage activities not requiring a written script. 1 hr./wk. (CDR 5001)

**THEA 125  
CHILDREN'S THEATER I (3CR)**

Students with no experience can explore children's theater in this class. They will study the difference between theater for and by children and the adaptation of various forms of children's literature. Performances will consist of the presentation of programs to



area grade school children. 3 hrs./wk. plus rehearsals and performances. (CDR 3407)

**THEA 130  
ACTING I (3CR)**

The fundamentals of acting will be studied in this class. Emphasis will be on discovering and expanding creative potential through exercises in self-awareness, posture, movement, voice and personality projection. Students will take part in a final acting project performance. 3 hrs./wk. plus rehearsals and stage performances. (CDR 3311)

**THEA 133  
THEATER PRACTICUM I (2CR)**

Students can gain practical experience in technical theater techniques in this class. 4 hrs. lab/wk. (CDR 5417)

**THEA 135  
MAKE-UP (1CR)**

Students will study and practice applying stage make-up. 1½ hrs. lecture, 1½ hrs. lab/wk. for 5 wks. (CDR 2656)

**THEA 137  
LIGHTING (1CR)**

Students will study and practice handling stage lighting. 1½ hrs. lecture, 1½ hrs. lab/wk. for 5 wks. (CDR 1238)

**THEA 140  
BASIC STAGECRAFT (1CR)**

This course provides students with the theory behind and practical experience in building and painting stage scenery. 1½ hrs. lecture, 1½ hrs. lab/wk. for 5 wks. (CDR 3175)

**THEA 225  
READER'S THEATER (3CR)**

Students will combine acting, interpretation and rhetoric as they analyze and perform prose, poetry and dramatic literature and present public performances. 3 hrs./wk. plus rehearsals. (CDR 4669)

**THEA 230  
ACTING II (3CR)**

*Prerequisite: THEA 130*

This continuation of ACTING I will focus on character analysis and development, emphasizing the actor's responsibility in creating the character. Students will take part in actual stage performances and videotapes for broadcast. 3 hrs./wk. plus rehearsals, television studio performances and stage performances. (CDR 5316)

**THEA 233  
THEATER PRACTICUM II (2CR)**

This class provides additional practice in technical theater techniques. 4 hrs. lab/wk. (CDR 5418)

**THEA 240  
COSTUMING (1CR)**

Students will study casting and practice creating costumes. 1½ hrs. lecture, 1½ hrs. lab/wk. for 5 wks. (CDR 4582)

**THEA 243  
SET DESIGN (1CR)**

Students will study set design and practice designing stage sets. 1½ hrs. lecture, 1½ hrs. lab/wk. for 5 wks. (CDR 3745)

**THEA 255  
CHILDREN'S THEATER II (3CR)**

*Prerequisite: THEA 135*

Students experienced in performing for children will adapt plays and focus on techniques such as mime, puppetry, improvisation and choral readings. Students will prepare material for their own selection and adapt it to the needs of the class and the audience. Performances will be presented to area grade school children. 3 hrs/wk. plus rehearsals and performances. (CDR 3408)

**THEA 258  
THE SHAKESPEARE PLAYS (3CR)**

This course is an introduction to the plays of Shakespeare. Students will read and view on cable television selected plays. (CDR 5588)

*JCCC's Children's Theater group presents performances for area school children.*



*You can add courses on through the first week of the semester.*



# ***STUDENT AND INSTRUCTIONAL SERVICES***

Counseling Center  
Adults Unlimited Program  
Testing/Assessment Center  
Career Planning and Placement Center  
GED Program  
Project CLEAR  
Hearing Impaired Program  
Gallaudet College Extension Center  
Child Play Center  
Dental Hygiene Clinic  
Student Activities Program  
Campus Ledger  
Athletics  
Library  
Parking  
Student Code of Conduct  
Access to Student Information



## STUDENT AND INSTRUCTIONAL SERVICES

### COUNSELING CENTER

JCCC's counseling staff is on hand to help you with academic, career or personal problems. You may see a counselor on a walk-in basis or by appointment. Here is what the Counseling Center has to offer:

- **Information about JCCC academic and career programs:** A counselor can answer your questions about JCCC's academic and career programs and will help you develop a program plan.
- **Career planning and exploration assistance:** Are you undecided about a career? Or do you need help in pursuing the career you have chosen? The Counseling Center's interest tests and educational information can give you insight into yourself and into career possibilities and strategies.
- **Current transfer information:** If you are planning to transfer to a four-year institution, come to the Center **before** you enroll in courses at JCCC. A counselor can explain which courses will transfer and which courses are recommended by the institution you plan to attend.
- **Help in solving social or personal problems:** Learn to solve your social or personal problems through a self-examination process. A counselor will guide you in evaluating your attitudes, goals and values. Community referrals also are available.
- **Orientation to the College:** If you are new to JCCC, getting around the College may be difficult at first. A Counseling Center orientation session may help you get better acquainted. Individual and group sessions are available.

### ADULTS UNLIMITED PROGRAM

If you're an adult returning to school, you can get assistance in educational, career and personal decision-making and goal-setting through the Adults Unlimited program. Counseling, information and referral services also are provided. The program publishes a monthly newsletter for adult students and sponsors support groups and non-credit workshops. The services are available on a walk-in basis or by appointment in the Counseling Center.

### TESTING / ASSESSMENT CENTER

The Center provides a variety of services including English, Math and reading assessment for new student placement, telecourse testing and administration of standardized tests and vocational interest inventories. JCCC students seeking credit for life experiences apply for Experience Based Education (EBE) credit through the Center. A service of special interest to instructors is instructional make-up testing for students who have missed regularly-scheduled exams.

### CAREER PLANNING AND PLACEMENT CENTER

Career education, individual and group career planning and information on more than 20,000 occupations are among the services available through the center. Hundreds of current job openings are listed

*You may see a counselor by appointment or on a walk-in basis.*



*SIGI is a computer-based program designed to help you make career decisions. Contact the Career Planning and Placement Center for details.*

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 diploma by taking the General Educational Development Test (GED), contact the Testing/Assessment Center for details. If you are ready now to take the GED Test, call to schedule a testing appointment.

Help in preparing for the GED Test is available through a variety of classes and through individual instruction.

How do you decide if you need help in preparing? The official GED Practice Test is available through the Testing/Assessment Center to help you decide if you're ready to take the GED Test. It will help you identify areas of strength and weakness and determine whether you need more study before you take the test.

### PROJECT CLEAR

Mentally retarded adults are offered a variety of non-credit, continuing education opportunities through College Learning Experiences for Adults with Retardation, better known as Project CLEAR. The program focuses on independent living skills and life-enhancing experiences through classes offered on Saturdays and weekday evenings during the fall, spring and summer.

Project CLEAR also offers programs for parents of mentally retarded individuals and for other interested community members. Contact the Special Services Division for complete information.

### HEARING IMPAIRED PROGRAM

The Hearing Impaired Program at JCCC offers credit and non-credit opportunities which prepare hearing impaired students to enter the mainstream of regular career and academic programs at JCCC.

Services available through this program include support for admission and orientation and supportive services such as notetaking, interpreting and counseling. A variety of courses is available each semester including speech therapy, manual communications and the fundamentals of math and English.

A college preparatory program is offered each summer to help students adjust to college life.

In addition, the program makes an effort to inform the community and others throughout Kansas how to better deal with the hearing-impaired population. For more information, contact the Special Services Division.

### GALLAUDET COLLEGE EXTENSION CENTER

JCCC established the Gallaudet College Extension Center in cooperation with Gallaudet College in Washington, D.C. — the world's only four-year liberal arts college for the deaf.

The Center serves a six-state area through workshops, seminars, conferences and consultation. It is the work of the Center to provide educational oppor-



tunities to deaf adults; develop an awareness about deafness in the hearing community; offer technical assistance to area agencies and services; and train parents, professionals, deaf adults and other interested persons. For more information, contact the Special Services Division.

### **DENTAL HYGIENE CLINIC**

You and your family may have your teeth checked, cleaned, X-rayed and treated with fluoride for a small fee at the Dental Hygiene Clinic. Dental hygiene students, supervised by licensed dentists and dental hygienists, will provide the services and show you how to care for your teeth in the future. Call the Clinic to make an appointment.

### **STUDENT ACTIVITIES PROGRAM**

JCCC's Student Activities Office brings you cultural, social and recreational activities throughout the year, in cooperation with the Campus Activities Board (CAB). Activities you can expect each year include the Friday Cinema Series, Captioned Films for the Deaf Series, live entertainment in the Corner Lounge, guest lecturers, film festivals and various recreational activities.

The Student Activities Office also works with the Student Senate which acts as a sounding board for student issues. The Student Senate, a totally volunteer organization, has been responsible for getting the first honorary organization on campus and has been involved in various activities and campus issues.

Student activities will give you the chance to develop your leadership skills and may stimulate your interest in a particular class or program. They also will give you the opportunity to interact with staff and students in a friendly, relaxed atmosphere.

For information on how to get involved in Campus Activities Board, Student Senate or to form an organization, contact the director of Student Activities. For information on upcoming events, call the WHAT'S HAPPENING HOTLINE, 541-3888.

### **CAMPUS LEDGER**

The Campus Ledger is a student-run newspaper which emphasizes news and programs. Ultimate editorial responsibility rests with the editor who in turn is responsible to the JCCC Publications Board.

### **ATHLETICS**

Men compete in baseball, tennis, basketball, golf, soccer and track at JCCC. Women may take part in tennis, volleyball, basketball, softball and track. The College will participate in other intercollegiate athletics as approved by the Board of Trustees. JCCC is a member of the National Junior College Athletic Association (NJCAA) and the Kansas Jayhawk Community College Conference. You must meet NJCAA and conference eligibility rules to compete in intercollegiate activities.

JCCC also offers a full range of intramural activities which enable you to develop your skills and make friends during your leisure time.

### **LIBRARY**

The JCCC library maintains a collection of books, periodicals, films, slides, tapes, microfilm and other resources available to students and Johnson County residents. A highly trained staff of librarians and library aides are on hand to assist you in finding and using the resources.

Currently, the library houses more than 45,000 books, 500 current periodicals, 250,000 documents on 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.

Books are due 21 days from the day you check them out. You will be charged 10 cents a day for each item you keep out past the due date. The maximum fee you may be charged is the cost of the book or \$5, whichever is greater. If you lose a book, you will be charged the cost of the book plus a \$2 service charge.

Sometimes your instructor may place materials on reserve and specify a loan period. You will be charged 25 cents an hour on each item you keep out past the time it is due, or \$1, whichever is less.

**Your transcripts or grades will not be released until you pay all library fees.**

### **PARKING**

Parking is free for all JCCC students. You do not have to register your vehicle. Parking lots are marked with signs directing you to the designated parking areas. You may not park in the handicapped students' Lots 3, 6 and 10 unless you have a permit.

### **HANDICAPPED PARKING**

If you are permanently or temporarily disabled, you may obtain a parking permit from the Special Services Office. This permit will allow you to park in designated spaces on campus. A physician's certification may be required to receive this permit.

### **MOTORCYCLES AND MOTORSCOOTERS**

If you are riding a motorcycle or motorscooter, you are expected to comply with all parking and traffic regulations.

### **BICYCLE RACKS**

Racks are available throughout the campus. You do not need to register your bicycle.

### **EMERGENCY PARKING OR LOADING**

Special permits are available at the switchboard.

### **HANDICAPPED LOT VIOLATION**

Your vehicle will be immobilized or towed after you receive two citations for parking in a handicapped lot without a permit, Monday through Saturday, 7 a.m. to 9 p.m. You will be charged \$10 for removal of the immobilizer.



*You may pay a parking fine in the Business Office.*

*You may park in any lot on campus except those set aside for the handicapped.*



*If the college closes because of bad weather, the announcement will be made on KCMO/81 and other radio stations. You also may call the College's main number - 888-8500.*

*A prerequisite is a requirement you must meet for enrolling in a specific course.*



### IMMOBILIZATION OR TOWING

Your vehicle will be immobilized or towed away if:

1. it is parked in a handicapped parking lot or a loading area without a permit;
2. you refuse to move your vehicle after a security officer requests you do so;
3. it is blocking a dock or sidewalk or is parked on the grass;
4. you park your car or truck in the motorcycle area.

### ACCIDENTS

If you are involved in an accident on campus, notify the Security Office immediately and file an accident report.

### STUDENT CODE OF CONDUCT

JCCC reserves the right to suspend you for any conduct which is detrimental to the best interests of the College. The following violations of the College's standards for student conduct may result in 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 decision made and reasons for that decision. (3) The decision of the President is final.

If you do not take the next step in the grievance procedure within the stated time period, the grievance shall be considered settled.

### YOUR RIGHTS AS A GRIEVANT

No reprisals of any kind will be taken against you by any member or representative of the administration for filing a grievance.

### ACCESS TO STUDENT INFORMATION

Your rights concerning access to your educational records are spelled out in Public Law 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.

If you are a dependent student, under 18 years of age, your parents will have access to your educational record. The College will assume you are a dependent if your parents provide a written statement that you are listed as a dependent on their federal income tax forms.

JCCC does not publish a student directory. JCCC may, upon request, provide the following information to authorized individuals:

- student's name
- address
- telephone number
- date and place of birth
- major field of study
- participation in officially recognized activities
- sports — weight and height of athletic team members
- dates of attendance
- degrees
- awards received
- most recent previous educational institution attended

If you object to the disclosure of any of the above information, notify the Admissions/Records Office in writing which items you do not want released without your consent.

You may obtain a copy of the College's policies on access to student information and implementation of these procedures from the Admissions/Records Office.

You may file a complaint with the Department of Education if you believe your rights under this law have been violated and if efforts to resolve the situation through JCCC appeal channels have proved unsatisfactory. Send your complaint to:

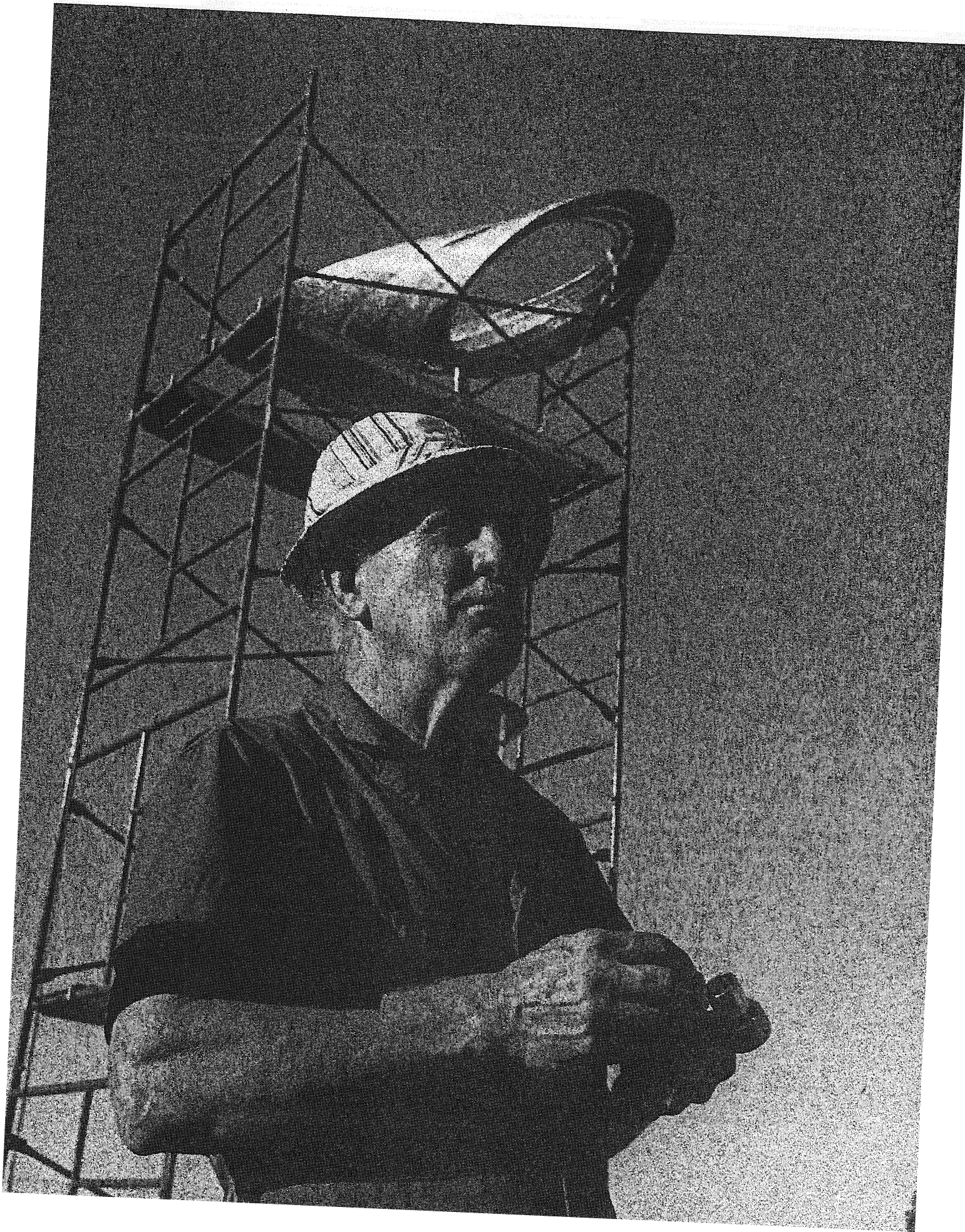
F.E.R.P.A., Department of Education  
Room 514 E  
200 Independence Avenue SW  
Washington, DC 20201



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

*Information about scholarships, grants, loans and jobs is available from the Financial Aid Office, first floor, GEB.*







# **COMMUNITY EDUCATION**

Continuing Education  
Community Development  
Community School Program  
Cultural Arts Programming  
A Program for Those Over 60  
Business and Industry Institute  
On-Site Education/Employee Development  
Clinics for Youth  
Special Events  
Child Care Directory  
Tours  
Speakers Bureau  
Courses by Television  
Conferences and Workshops  
Extension Courses  
Use of College Facilities  
Community Theatre, Chorus, Jazz Band,  
Arts Council of Johnson County

## COMMUNITY EDUCATION

What is community education at JCCC? It's non-credit courses and activities ... formal classes or non-traditional programs ... cultural and recreational offerings designed specifically to meet the needs of the community and using school, college, library and other facilities. Community education activities at JCCC are created using input from you and the community.

*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.*



### 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
- Aviation
- Business Management
- Career Planning
- Childhood Education
- Communications
- Computer
- Cultural Arts
- Dance
- English as a Second Language
- Family Life
- Film
- Foods
- Foreign Language
- GED Tests and CLEP
- Health and Safety
- Horsemanship
- Home Management
- Industrial Arts
- Money Management/Finance
- Music
- Office Education
- Performing Arts
- Personal Development
- Practical Know-How
- Photography
- Physical Development
- Reading and Math
- Real Estate
- Science
- Sewing
- Sign Language
- Sports and Recreation
- Travel for Credit

### COMMUNITY DEVELOPMENT

If you are concerned about development, stabilization or change in your community, why not confront these issues with others who care? JCCC is often a meeting ground and catalyst for citizens interested in:

- developing leadership skills
- examining proposed amendments to the state constitution

*If you would like to teach a non-credit course, contact the Continuing Education Division.*

- 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 community liaison who assists in selecting courses and who acts as link between the community and JCCC.

### CULTURAL ARTS PROGRAMMING

There is a rich array of cultural opportunities available in the greater Kansas City area and 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.

### A PROGRAM FOR THOSE 60 OR MORE

Are you 60 or more and a Johnson County resident? You are in luck — you can join JCCC's Brown and Gold Club! There is no charge to join. And, as a member, you may take College credit and non-credit courses and get into College-sponsored musical, dramatic or athletic programs at no charge on a space-available basis.

In addition to the Brown and Gold Club, JCCC presents programs for those 60 or more at senior centers, luncheon sites, churches and libraries. Another popular 60 or more activity is Learning Adventures, a full day of programs and involvement with JCCC students and instructors held each semester on campus.

### CENTER FOR CONTINUING HEALTH EDUCATION

Johnson County Community College — through the Center for Continuing Health Education — offers to the health professional community quality seminars and workshops designed to meet the challenge of

health care in the '80s. The Center offers a broad range of health education opportunities to growth-oriented practitioners in hospitals, nursing homes, industries, government and other public and private institutions. For information call (913)888-8500, ext. 3163.

### **CONTINUING EDUCATION CREDIT**

Johnson County Community College is an approved provider of continuing education by the Kansas State Board of Nursing. The following agencies may also approve JCCC's workshops for credit toward license renewal.

American Association for Respiratory Therapy  
American Dietetic Association  
American Medical Record Association  
American Society for Medical Technology  
American Society of Radiologic Technologists  
American Speech and Hearing Association  
Kansas Chapter, American Physical Therapy Association  
State of Kansas, Behavioral Sciences Regulatory Board  
State of Kansas, Bureau of Nursing Homes

### **BUSINESS AND INDUSTRY INSTITUTE**

The Business and Industry Institute: New Ventures in Training and Professional Development is an arm of Johnson County Community College designed to help business and industry solve training and professional development problems and stimulate economic development. The Institute offers business, industry and government groups all the training, research, consulting and technical assistance the college has to offer ... at a reasonable cost. Among the services offered are:

**On Site Training:** credit and non-credit courses taught at the business site. Courses can be designed to fit the needs of individual businesses, using their equipment and facilities so employees can learn in the actual working conditions.

**On Campus Training:** credit and non-credit courses, seminars, workshops and programs in technology, business, health and human services offered on the JCCC campus. Courses and programs can be designed to specifications of individual businesses.

**Professional Seminars:** professional and management development seminars both on campus and on site.

**Professional Resources:** resource sharing and problem solving, including assistance with training, equipment, services and consultants.

### **CLINICS AND COURSES FOR YOUTH**

Each year JCCC offers sports clinics and courses for boys and girls from 7-16. The clinics focus on tennis, baseball, basketball, gymnastics, volleyball, softball and soccer.

### **SPEAKERS BUREAU**

Does your organization need a guest speaker? You pick the topic — chances are JCCC's Speakers Bureau can arrange for someone to speak to your

organization about it. The Bureau also can arrange performances by music, drama and speech students. Call the Community Services Division at 541-3837.

### **DIRECTORY SERVICES**

JCCC aids in compiling and printing lists of community and government organizations as well as a directory of child care centers in Johnson County. Contact the Community Services Division at 541-3837 for details.

### **TOURS**

Each semester, JCCC offers several "day trips" to nearby communities of historic or artistic interest such as Abilene, Atchison, Lexington, Weston and Jamesport. The tours usually include lunch at a colorful local restaurant. Half-day tours to artistic events, museums and other places of cultural interest also are available.

### **SPECIAL EVENTS**

The many special events JCCC offers each year cover a variety of topics including music, theater, art, astronomy, energy, health, foreign policy, science fiction, film festivals and family fun. Seminars and conferences in parent education, pre-retirement aging and stress management also are offered. In addition, JCCC holds forums on community action throughout the area in cooperation with other organizations.

### **COURSES BY TELEVISION**

Each semester JCCC offers telecourses which make it possible to earn college credit in your own home. Non-credit telecourses also are offered. Each lesson is shown several different times a week — you pick the time most convenient for you. And if you miss a lesson one week, you may view it on videotape in the JCCC library.

You also may save time, money and gas through courses by television. There is no need to come to campus except for a few scheduled class meetings and for exams. That means no hassles with traffic, bad weather or babysitters. Simply switch on your cable television and your living room becomes a classroom.

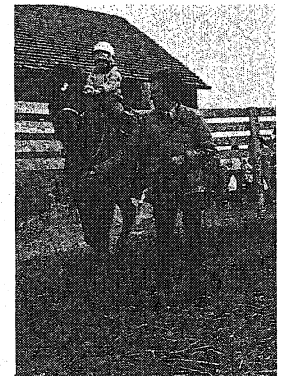
You can apply college credits earned through telecourses to your associate degree program and in most cases these credits will transfer to other colleges. You may be either a full-time or part-time student at JCCC and there is no limit to the number of telecourses you may take.

It's natural to be apprehensive about learning on your own out of the classroom. But if you are self-disciplined and can learn without supervision, you should have no problems. And if you have questions during the semester, a JCCC instructor will be just a phone call away.

### **CONFERENCES AND WORKSHOPS**

The College's Community Services Division offers a wide range of services to public and private organizations including planning and arranging for seminars, conferences, institutes, short courses and workshops. The College also conducts and co-sponsors workshops and conferences with other institutions and organizations. For more information, contact the Community Services Division at 541-3837.

*JCCC offered its first non-credit microcomputer course — MICRO-COMPUTERS AND YOU — in 1982.*



*The telecourses offered each semester are listed in the Credit Bulletin. Bulletins are available in the Admissions Office.*

*The JCCC Library is located in the EMC Building.*

*For a listing of musical events, check the Community Education Bulletin each semester.*



### **EXTENSION COURSES**

The College provides off-campus community education outreach courses for college credit. Most credit courses offered by the College can be offered at any location if there are enough participants and the environment is conducive to learning. For more information contact the Continuing Education Division.

### **USE OF COLLEGE FACILITIES**

The College encourages community groups to use its facilities for meetings and activities when there is no conflict with College programs. For more information about the use of College facilities contact the Community Services Division.

### **COMMUNITY THEATER, CHORUS, JAZZ BAND**

The College cooperates with The Barn Players, Inc. to bring community theater to Johnson County. An all-volunteer crew produces a summer series of five full-length plays as well as other productions and a Readers theater throughout the year. Training for beginning actors is offered in the fall and spring. The Senior Acting Troupe produces a series of one-act plays dealing with the concerns of aging.

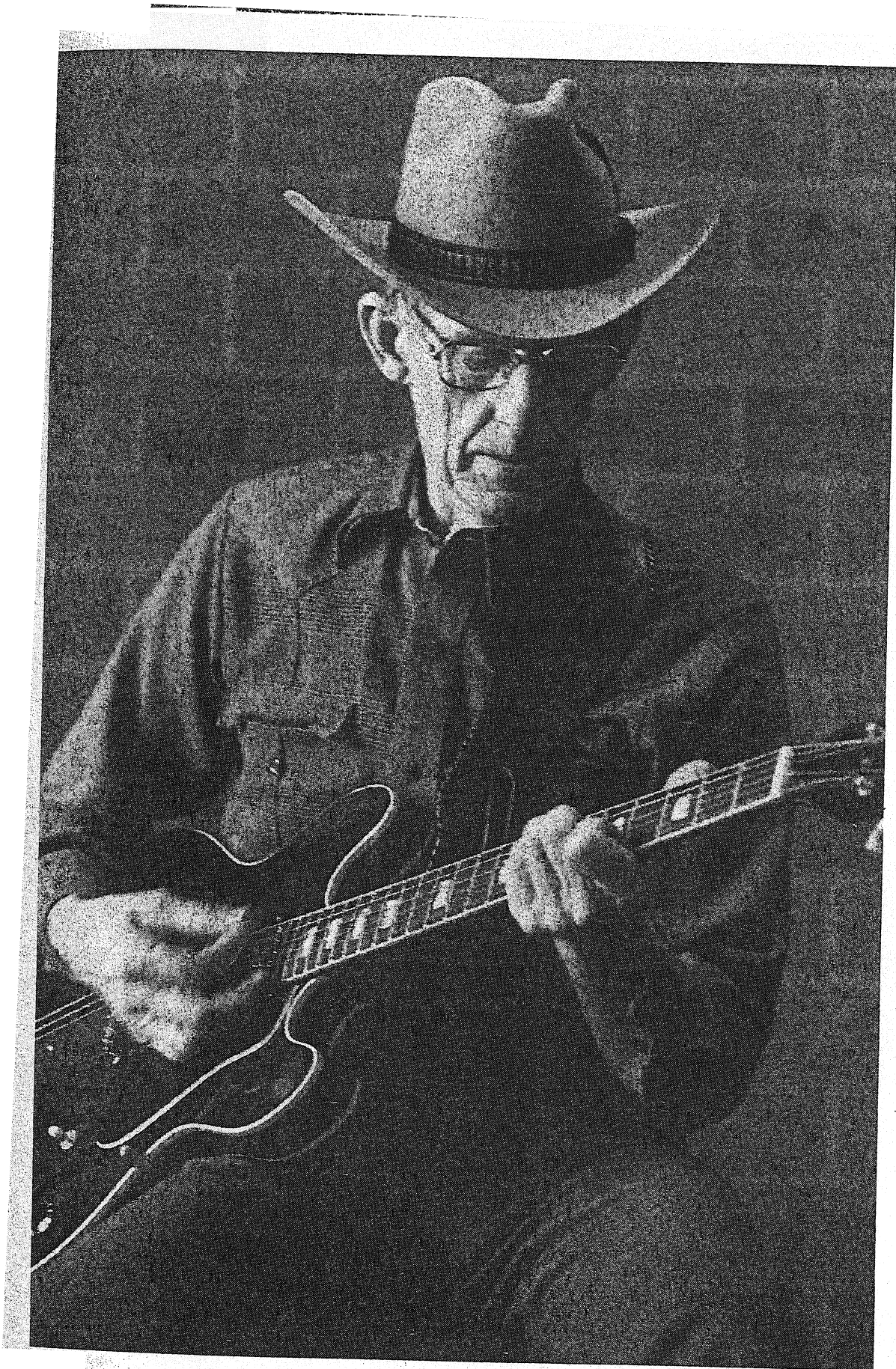
The Johnson County Community Jazz Band presents the big band sound with music from the past and present at concerts held twice a year in JCCC's Little Theater. Community concerts also may be booked through the Community Services Division.

The JCCC Community Chorus rehearses weekly and presents concerts on campus and throughout the community during the academic year. Membership is by audition.

### **ARTS COUNCIL OF JOHNSON COUNTY**

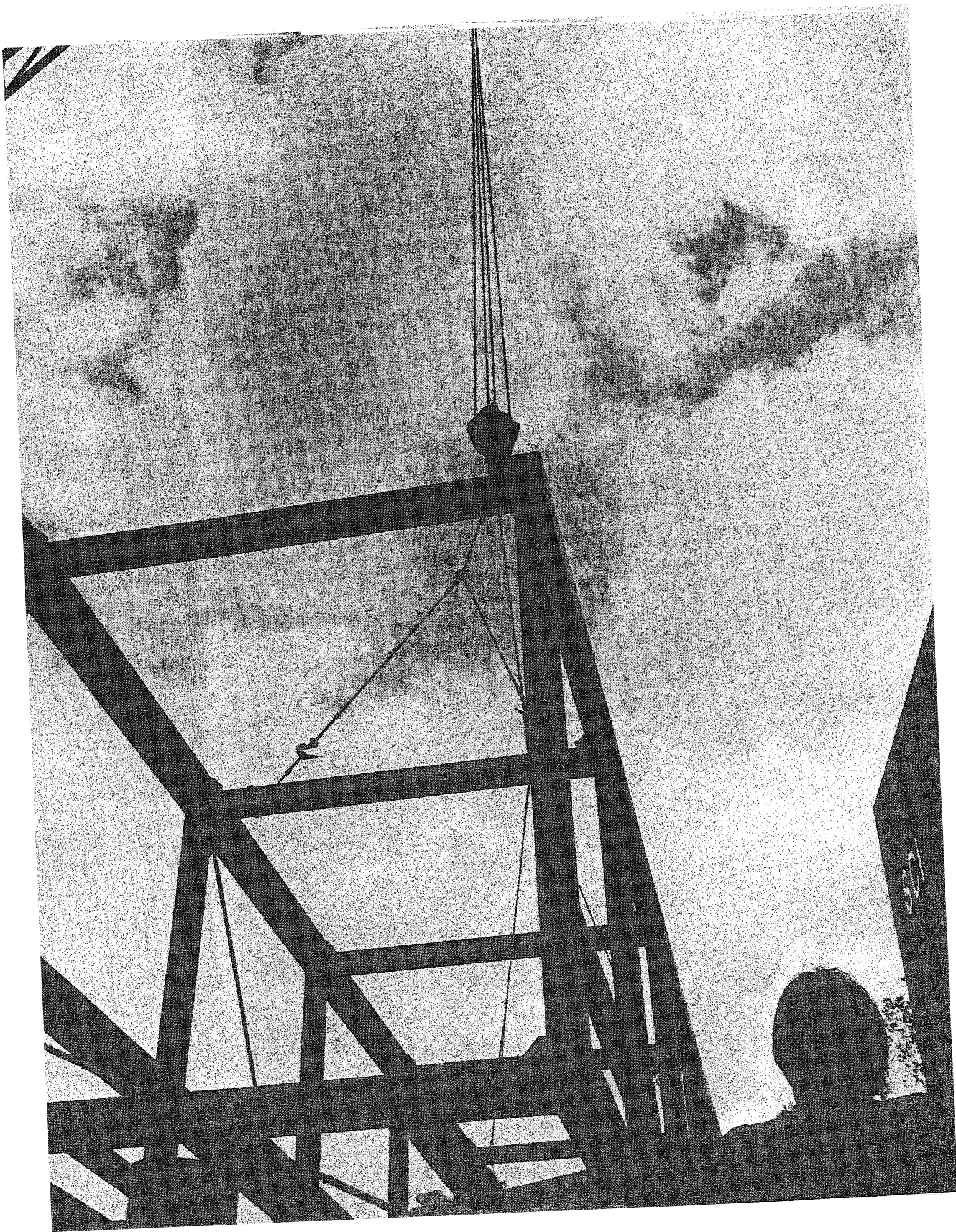
As part of the mission to serve as a cultural center, the College has assumed leadership in establishing and sponsoring the Arts Council of Johnson County. An office with a part-time administrator is maintained on the campus. Funding assistance is received from the Kansas Arts Commission, National Endowment for the Arts, Johnson County Park and Recreation District and the Johnson County Library. The ACJC board is a coalition of more than 25 organizations representing art, education and business. ACJC provides a quarterly arts calendar and newsletter, workshops, services and information to community arts organizations and facilitates cooperative arts programs.





*Membership in JCCC's  
Brown and Gold Club  
makes campus events  
and activities available to  
senior citizens at no cost.*





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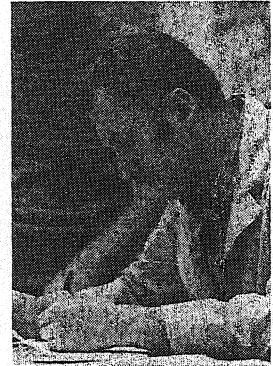
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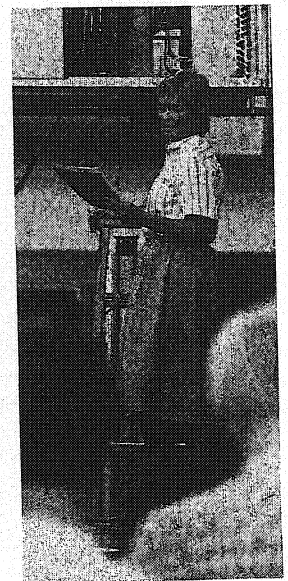
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Agribusiness	AGRI	Manufacturing Technology	MFTG
Anthropology	ANTH	Marketing Management	MKT
Art	ART	Mathematics	MATH
Automotive Technology	AUTO	Medical Laboratory Technician	KMLT
Aviation	KAV	Medical Records Technology	MRT
Biology	BIOL	Metal Fabrication	MFAB
Biomedical Equipment	BMT	Music	MUS
Business Administration	BUS	Nursing	NURS
Business Data Processing	DP	Occupational Therapy	KOT
Chemistry	CHEM	Paralegal	PL
Commercial Art	CA	Philosophy	PHIL
Computers: Personal Computer	CPCA	Photography	PHOT
Correctional Services	KADJ	Physical Development	PD
Dental Assisting	KDA	Physical Science	PSCI
Dental Hygiene	DHYG	Physical Therapy Assistant	KPT
Drafting Technology	DRAF	Physics	PHYS
Economics	ECON	Political Science	POLS
Education	EDUC	Psychology	PSYC
Electronics	ELEC	Radiologic Technology	KRAD
Emergency Medical Technology	EMT	Recreational Leadership	RECL
EMICT	EMIC	Respiratory Therapy	RT
Energy Technology	ENER	Secretarial Careers	SEC
Engineering	ENGR	Small Animal Health	KSAH
English	ENGL	Small Engine	SMEG
Equine	EQUUS	Sociology	SOC
Fashion Merchandising	FASH	Speech	SPD
Fire Protection/Safety Adm.	FIRE	Theater	THEA
Foreign Language	FL		
Health	HLTH		
Hearing Impaired	HRIM		
History	HIST		
Home Economics	HMEC		
Horticulture	HORT		
Hospitality Management	HMGH		
Humanitiess	HUM		
Interior Merchandising	ITMD		
Interpreter Training	INTR		



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## **Business and Economics Division**

Accounting  
Business Administration  
Business Data Processing  
Computers: Personal Computer App.  
Economics  
Fashion Merchandising  
Home Economics  
Hospitality Management  
Interior Merchandising  
Marketing Management  
Paralegal  
Secretarial Careers

## **Engineering and Technology Division**

Automotive Technology  
Aviation  
Biomedical Equipment Technology  
Drafting Technology  
Electronics  
Energy Technology  
Engineering  
Fire Protection/Public Safety Adm.  
Manufacturing Technology  
Mathematics  
Metals Fabrication  
Small Engine Repair

## **Humanities and Social Sciences Division**

Administration of Justice  
Anthropology  
Art  
Commercial Art  
Correctional Services  
Education  
History

Humanities  
Music  
Philosophy  
Photography  
Political Science  
Psychology  
Sociology

## **Natural and Health-related Sciences Division**

Agribusiness  
Biology  
Chemistry  
Dental Assisting  
Dental Hygiene  
Emergency Medical Intensive Care Training  
Emergency Medical Technology  
Health  
Horticulture  
Medical Laboratory Technician  
Medical Records Technology  
Nursing  
Occupational Therapy  
Physical Science  
Physical Therapy Assistant  
Physics  
Radiologic Technology  
Respiratory Therapy  
Small Animal Health

## **Physical Development and Athletics Division**

Physical Development  
Recreational Leadership

## **Special Services Division**

Hearing Impaired  
Interpreter Training



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