

# COLLIN COUNTY COMMUNITY COLLEGE 1988-89 CATALOG



*Central Campus*



*Spring Creek Campus*

# **COLLIN COUNTY COMMUNITY COLLEGE**

## **CATALOG**

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**1988-89**

**No. 2**

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Collin County Community College is an equal opportunity institution and does not discriminate on the basis of sex, race, creed, handicap, or national origin in accordance with federal law.

The programs, policies, statements, fees, and/or courses contained herein are subject to continuous review and evaluation. CCCC reserves the right to make changes at any time without notice. This publication is intended for information only.

Published by Collin County Community College, 2200 W. University, McKinney, TX 75069, phone (214) 548-6790 (Central Campus) or (214) 881-5790 (Spring Creek Campus). Postmaster, send address changes to Catalog, Public Information Office, CCCC, 2200 W. University, McKinney, TX 75070.

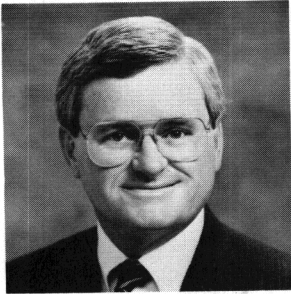
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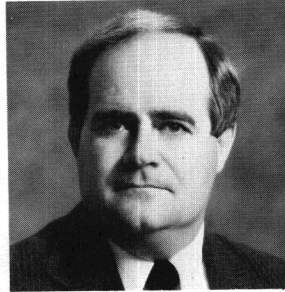
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## Board of Trustees

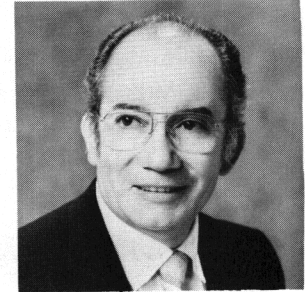
Collin County Community College is governed by a nine-member Board of Trustees. Members are elected at-large by Collin County residents for a six-year term of office. Trustees are responsible for policy-setting for the College and serve without compensation. Regular board meetings are held each month and are open to the public.



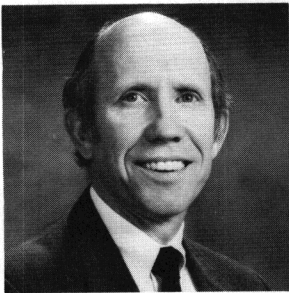
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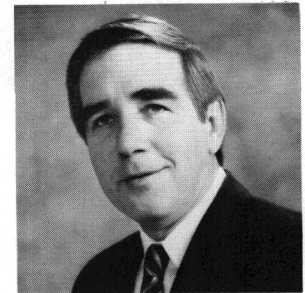
Tino Trujillo  
Secretary



J. R. (Bob) Collins



Glenn W. Justice



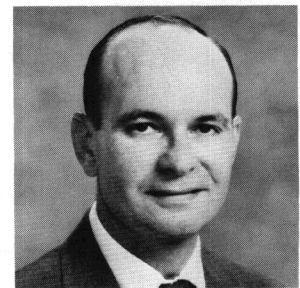
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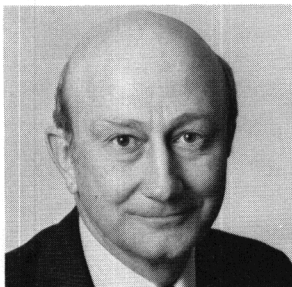
Sue Williard Olivier



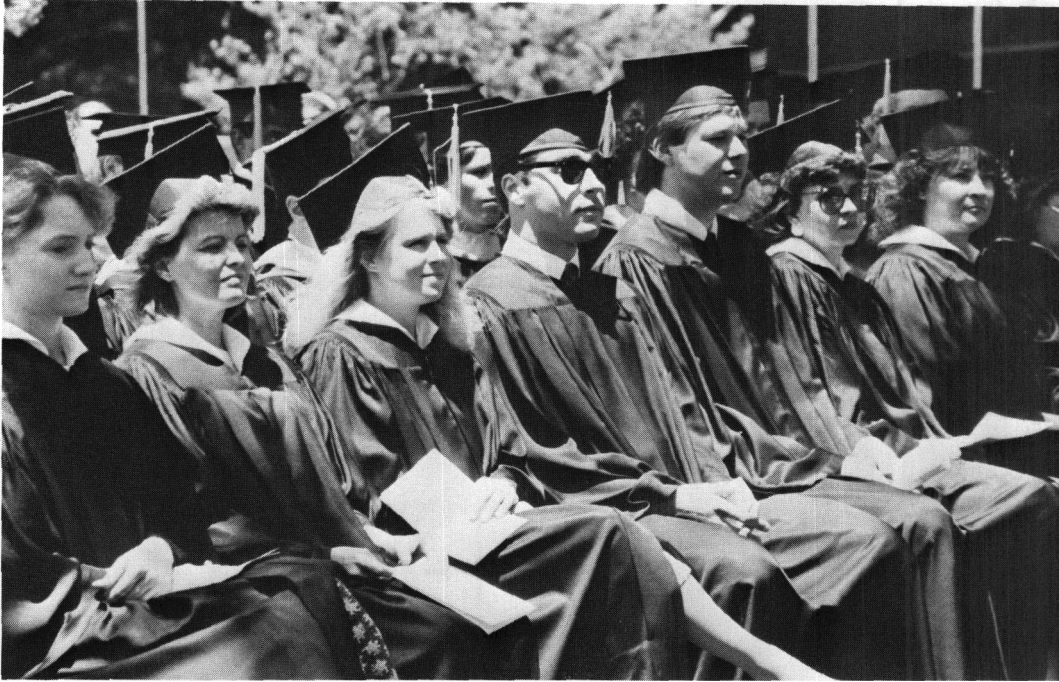
Margaret Reynolds



Richard Sewell



John H. Anthony  
President



# COLLIN COUNTY COMMUNITY COLLEGE

## MISSION STATEMENT

Collin County Community College affirms as its mission the commitment to provide, within the resources available, educational programs and services which meet individual and community needs. The College is committed to quality and excellence in all educational areas including transfer/parallel, vocational/technical, developmental, and continuing education.

## PHILOSOPHY AND PURPOSE

The educational philosophy of CCCC is that programs and services of the College should be available to all citizens who can benefit from them. Within this context, the purpose of the College is to create an environment which will help people: to live creative, humane, healthy, and sensitive lives; to recognize, accept, and encourage differences in personal, racial, ethnic, and cultural backgrounds; to relate to others openly and responsibly; to generate the motivation to continue learning throughout life; to develop an appreciation for all occupations, recognizing that dignity and honor come from a task well done rather than from the status of a vocation; to acquire the skills necessary for earning a living in a way that will promote the general welfare; and to prepare for a beneficial use of leisure time.

## HISTORY

The Collin County Community College District was authorized on April 6, 1985. The first classes were offered in fall 1985 in high schools throughout the county. The Central Campus opened its doors to students in January 1986. The Central Campus is a 130,000 square foot facility located on 100 acres of land near the intersection of Highways 75 and 380 in McKinney, Texas.

In the fall of 1988, construction of a second campus was completed. The Spring Creek Campus, located at the juncture of Spring Creek Parkway and Jupiter Road in east Plano, is a 380,000 square foot facility housing a physical education complex, conference center, theatre, Learning Resources Center, and food service area, in addition to classroom, laboratory, and office space. Day and evening classes are offered at both the Spring Creek and the Central campuses, and the College encourages the use of its facilities by community residents who are not currently enrolled in classes.

The District also continues to offer a number of courses at selected locations throughout the county.



The main entrance to the Spring Creek Campus opens into a large courtyard. The campus is built using a mall concept which provides enclosed access to the entire facility.



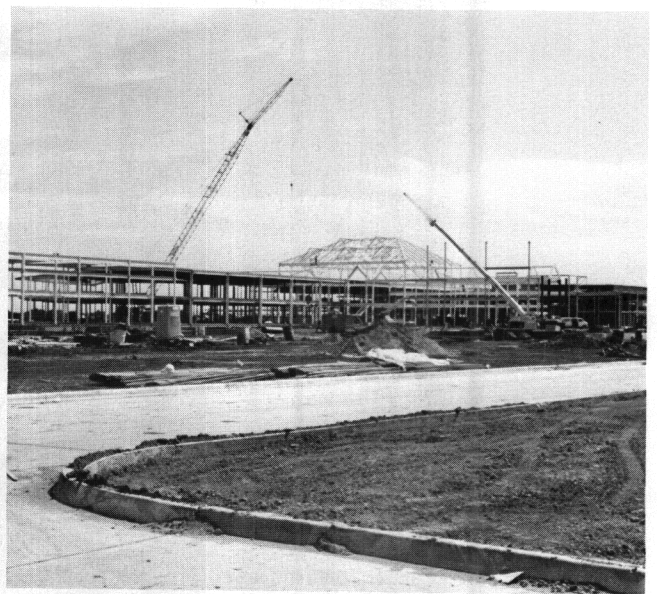
Civic leaders and CCCC Board members toured the campus in February, 1988. Pictured is the main courtyard, with fountain construction in the foreground.

# The Spring Creek Campus

## A New Page in the History of CCCC



Ground was broken for the campus on December 6, 1986 amidst laughter and fanfare. Pictured are Board Chairperson Carey Cox, CCCC President John Anthony, and state representative Sam Johnson.



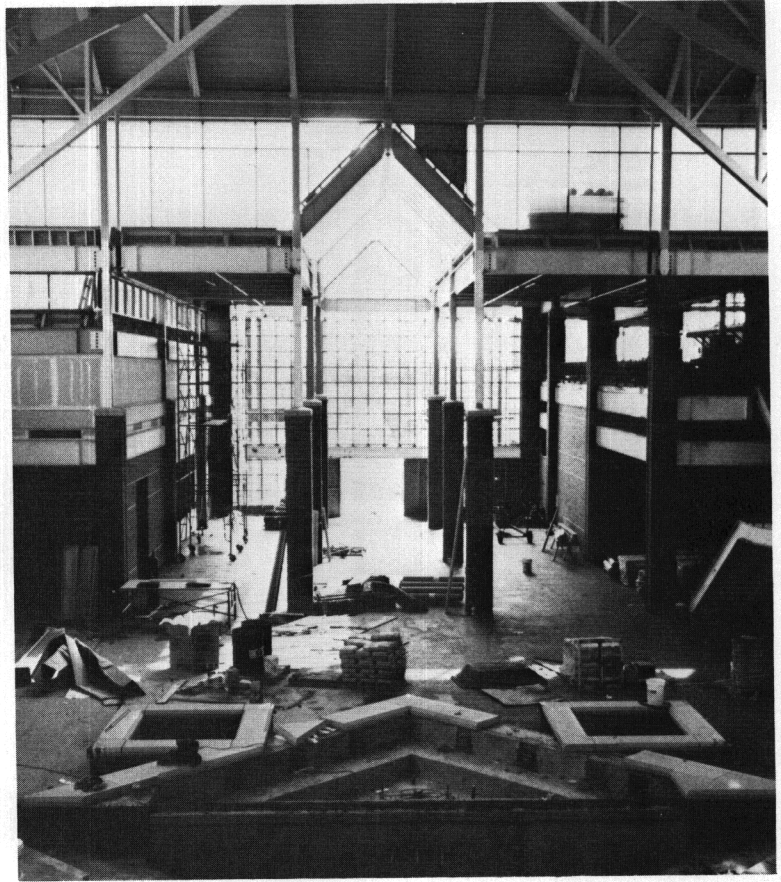
By the summer of 1987, the majority of the building's steel structure was in place. From left to right are module A, the physical education complex; module E, the mall; and module B, childcare, art, and music facilities.



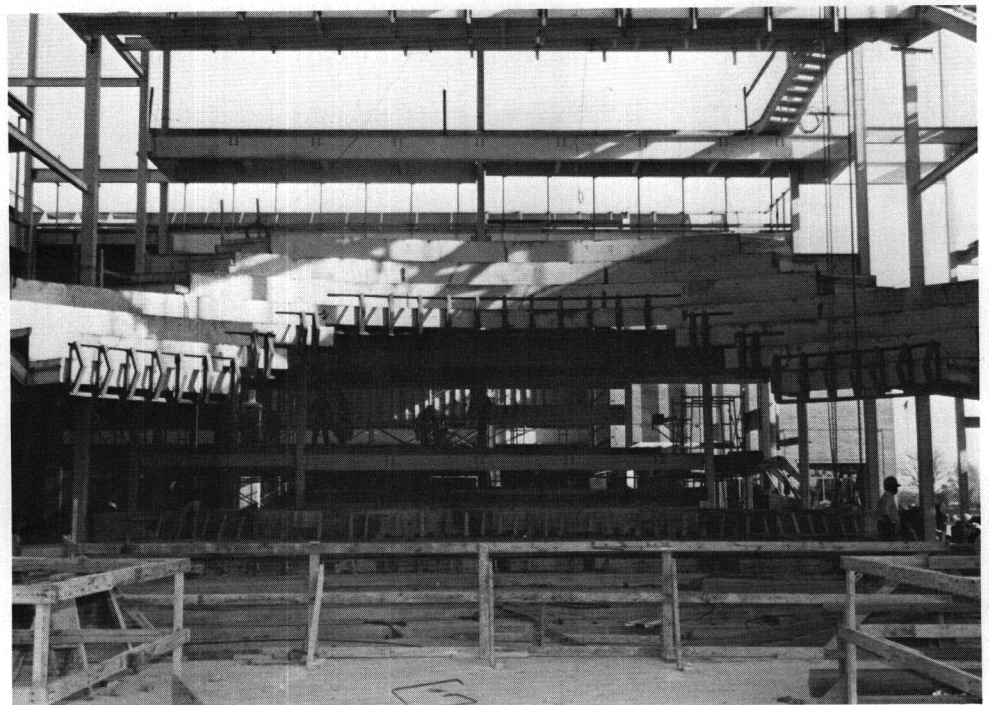
## 8 Spring Creek Campus



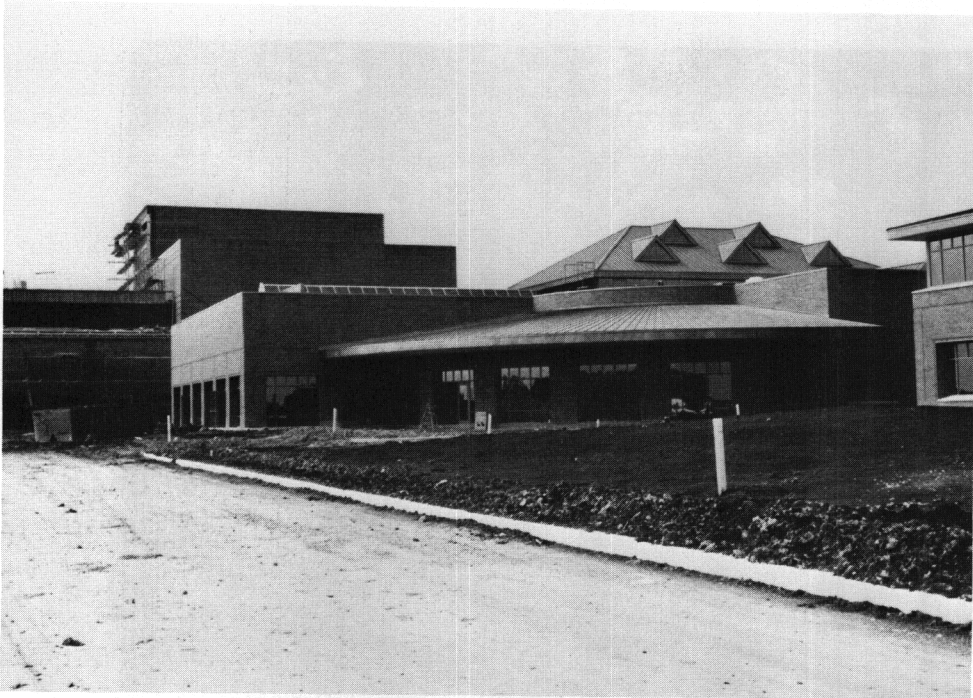
The east end of the building was almost completely bricked in by January 1988, with work progressing on the theatre (left).



Work on the main fountain (foreground) progressed in April 1988. Architects for the facility are Corgan Associates with Hellmuth, Obata, Kassabaum, Inc. of Dallas.



A "theatre-in-the-rough." Scheduled for completion in November 1988, the theatre module will seat 380 and include a "black box" theatre, dressing rooms, costume, and scene shops.



Module F is comprised of the conference center, with seating for 500, two dining and food service areas, and a student recreation area.

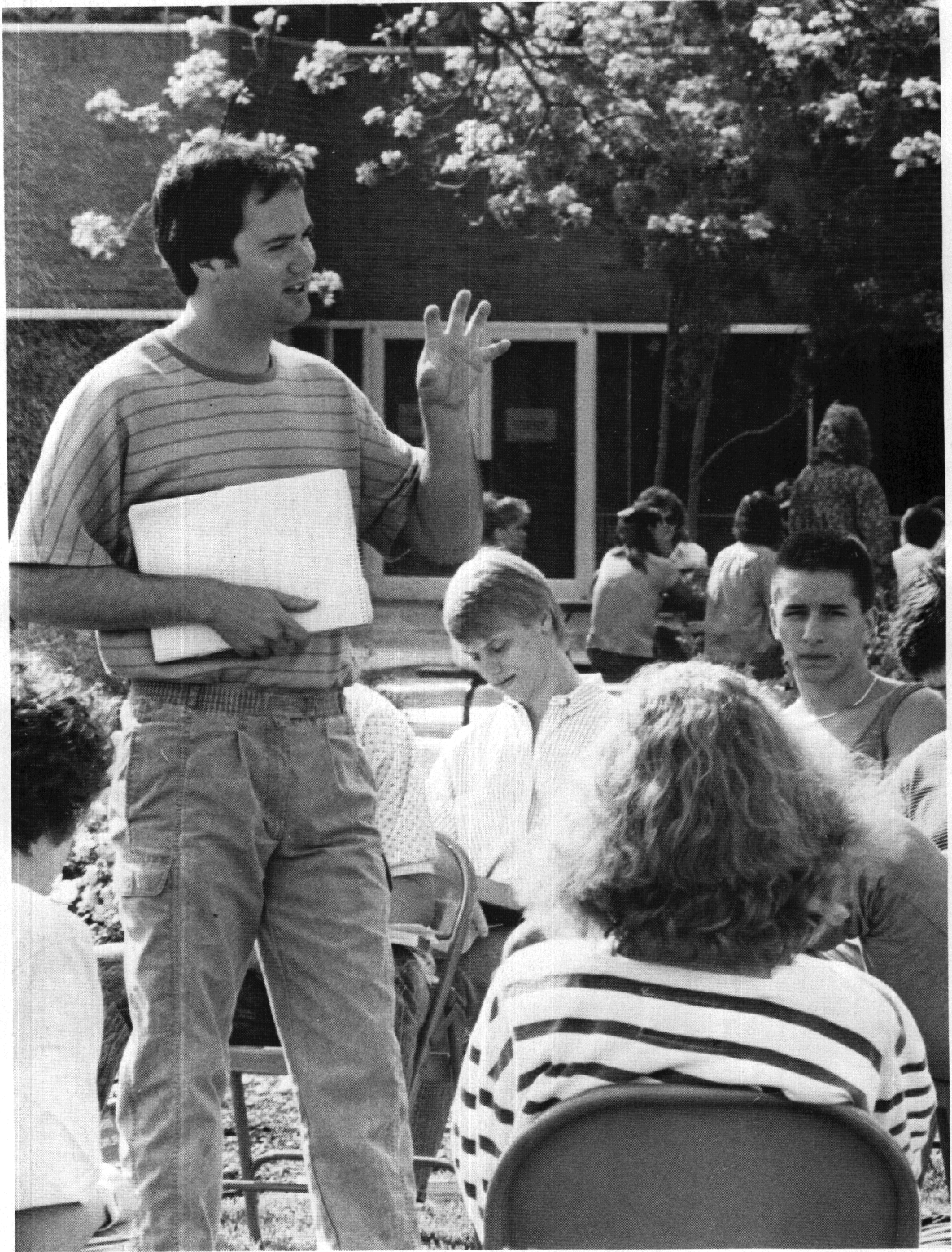


Modules in the new facility are connected internally by a skylighted mall. The second floor of the campus is approximately 45 percent completed, with three modules to be completed in the future.



State-of-the-art equipment and facilities mark the science lab facilities at Spring Creek. The approximately 500 science students will use such equipment as gas-liquid chromatography, infrared chromatography, high-pressure liquid chromatography, and molecular-genetics equipment.

Photographs by Mike Newman and Ann Ruggles



# Academic Policies and Procedures

## Accreditation

Collin County Community College has been awarded candidacy status by the Southern Association Commission on Colleges. The candidacy status is effective retroactively to January 1, 1986.

The awarding of candidacy status makes the College eligible for government and private foundation funding, provides a means of affiliation with member institutions, and simplifies the process for students transferring to other colleges and universities.

## Adding or Dropping Courses

Any change in a student's schedule of classes is accomplished by completing the necessary forms obtained from the Enrollment Management Office. Courses may be added prior to the fourth class hour. Students may drop a class with a grade of a "W" through the end of the 11th class week during a regular term and through the end of the 4th week in a short summer term.

A student who discontinues class attendance and does not officially drop the course will receive a failing grade for the course.

## Admissions Procedures

Collin County Community College operates under an "open door" admissions policy. Any individual above the age of compulsory high school attendance and whose high school class has graduated is eligible for admission. The College reserves the right to guide the placement of students through assessment, which may include interviews and a review of past academic achievement.

The following procedures should be followed:

1. An application for admission must be submitted. This application may be submitted prior to or at the time of registration.
2. New students should submit their most recent high school or college transcript or a copy of their GED scores to the Admissions Office. Students applying for and/or receiving financial aid or veterans benefits will **be** required to submit a complete record of all academic work including high school transcripts. Degree seeking students will be required to submit all official transcripts.
3. While not required, the College recommends that all students who have completed the SAT or ACT submit their scores to the Admissions Office.

Admission to the College does not guarantee admission to a specific program of study. Contact the Admissions Office for information on program requirements.

In its admissions policies and practices, the College does not discriminate on the basis of sex, race, creed, handicap, or national origin in accordance with federal law.

## \*Concurrent Enrollment

High school students may, with permission of the appropriate high school officials, hold concurrent enrollments in high school and college courses. Requirements for enrollment include a letter from the high school counselor or principal, along with a high school transcript of work completed to date. Students enrolling concurrently will be required to participate in assessment prior to registration. Permission of the instructor may be required. All students within the age of compulsory secondary attendance who are admitted will be enrolled on a provisional basis. Contact the Admissions Office for more information.

## \*International Student Admissions

In addition to the procedures and requirements listed above, all international students must provide the Admissions Office with the following:

1. A TOEFL score of 525 or above.
2. A completed statement of financial support (available from the Admissions Office).
3. A valid visa or proof of citizenship
4. Official transcripts from all previous colleges or universities.

International students who do not qualify under these requirements will be advised by the Admissions Office as to how they might acquire the necessary qualifications.

## \*Students on Probation or Suspension

Students on academic or disciplinary probation or suspension from another institution of higher education may be barred from admissions or admitted on a provisional basis. Official transcripts are required. The College reserves the right to limit the number of hours in which a student on probation or suspension may enroll. Contact the Admissions Office for more information.

**Audit**

Registration for a course for audit will be permitted as long as a credit student is not displaced from the class as a result of the audit. An audit student is subject to the usual registration process. Tuition and fees for an audit are included in the tuition and fees schedule. Since state reimbursement is not received for audits, a special audit fee will be assessed, in addition to tuition.

Students who are auditing classes will not receive grades or credit for the course, but the transcript will indicate that the course was audited. Students who are auditing classes will not be required to take tests; however, participation in regular class activities is expected. Enrolled students may not change to audit status following the certification date for that course.

**Repeating Courses**

Unless otherwise specified in the course description, courses may be repeated for credit only one time without permission from the appropriate academic administrator. Only the grade and credits earned in the most recent course repeat will be used in computing the grade point average and applied toward degree or program requirements. Grades of all courses taken will be recorded on the transcript. Veterans should consult the Director of Financial Aid/Veterans Affairs before repeating any course.

**Grading System**

A	Excellent	4 grade points per semester hour
B	Above Average	3 grade points per semester hour
C	Average	2 grade points per semester hour
D	Below Average	1 grade point per semester hour
F	Failure	0 grade points per semester hour
P	Pass	0 grade points per semester hour; is not computed in grade point average (GPA) but is computed in cumulative hours.

W	Withdrawal	0 grade points per semester hour; neither computed toward cumulative grade point average (GPA) nor cumulative hours.
I	Incomplete	0 grade points per semester hour; not computed toward cumulative grade point average (GPA) until it is replaced with a performance grade. See Incomplete Contracts Section.
Ip	In-Progress Student has completed 70% of the program but is not yet at competency level.	Earned <i>only</i> in self-paced courses. 0 grade points per semester hour; is not computed toward cumulative grade point average (GPA) until it is replaced with a performance grade. Computes toward grade point average for non-Developmental courses only.
Au	Audit	0 grade points per semester hour; is computed neither toward cumulative grade point nor cumulative hours.
Cr	Credit	0 grade points per semester hour; is not computed in grade point average (GPA) but is computed in cumulative hours.
Z	No grade recorded	0 grade points per semester hour until it is replaced by a performance grade; is neither computed in cumulative grade point nor cumulative hours.

At the completion of each term, the College will determine the student's term and cumulative grade point averages which will be recorded on a grade report to be received by the student.

**High Academic Achievement**

All students who complete 12 or more semester hours during a regular term with a 3.5 GPA or above qualify for the Dean's List. All students who complete 12 or more semester hours during a regular term with a 4.0 GPA qualify for the President's List. To be eligible for the Dean's List and the President's List in a summer term, a student must complete at least six semester hours that term.

Graduation honors will be awarded for students with the following cumulative grade point average in their degree plan:

4.0	Summa cum laude
3.75-3.99	Magna cum laude
3.5-3.74	Cum laude

**Class Attendance**

Regular classroom attendance is expected of all students. Class attendance requirements are determined by instructors. A student should ascertain each instructor's attendance policy during the first day of the class.



Students who receive Veterans' Administration educational benefits must conform to attendance and academic standards as established by the Veterans Administration and District policy. Information concerning requirements for attendance, satisfactory progress, certification of benefits, and all other questions affecting veteran students may be obtained from the Director of Financial Aid/Veterans Affairs. It is the veteran student's responsibility to determine and conform to District policies affecting veterans.

In accordance with Section 51.911 of the Texas Education Code, CCCC shall allow a student who is absent from class for the observance of a religious holy day to take an examination or complete an assignment scheduled for that day within a reasonable time. Students shall be required to file a written request with each instructor within the first 15 days of the semester to qualify for an excused absence. A copy of the State rules and procedures regarding holy days and the form for notification of absence from each class under this provision are available from the Director of Enrollment Management.

### **Incomplete Contracts**

At the close of each term, any incomplete contract must be agreed to and signed by the involved student, instructor, and appropriate division dean in order for a grade of "I" to be assigned. The contract must define the exact requirements the student is to fulfill in order to receive a performance grade. Incomplete work must be completed within the following regular term. Failure to remove an "I" during the succeeding regular term will result in an "I" being placed on the permanent record.

### **Non-Traditional College Credit**

Various credit options enable persons who have acquired knowledge and skills in non-traditional ways to demonstrate academic achievement. Credit may be given for college-level experience as demonstrated by acceptable test results regardless of the means by which the knowledge was acquired, except for college credit that has been previously granted. Students may also receive credit for some previous military training. Please note that a fee for test administration and transcript recording will be assessed. Without special permission from the Vice President of Instruction, not more than 18 hours may be counted toward a degree.

#### **\*College Level Examination Program (CLEP)**

Most public supported colleges and universities have agreed to accept as transfer credits all CLEP credit granted by regional accredited institutions using the criteria below. CLEP General Exams are not evaluated for credit at CCCC. Students planning to use CLEP credit to meet degree requirements at other institutions should check the requirements of the receiving institution. Collin County Community College uses these criteria for CLEP subject exam evaluation:



- A) CLEP credit shall be recorded on academic transcripts so as to be clearly recognized as credit earned by examination (cr) rather than through residency course work.
- B) CLEP credits shall not be granted if they duplicate credits for courses already completed.
- C) The Director of Enrollment Management certifies credit earned on a CLEP Subject Examination on scores at or above the average scores achieved by students in the national norms sample who earned a grade of C in regular college courses in that subject.

#### **\*Tests Given by College Instructors (Credit by Exam)**

Credit for some courses may be granted upon successful completion of a comprehensive examination over the content of the course. A fee is charged for each course examination and must be paid prior to taking the examination. This fee is not refundable. Students must be currently enrolled at the College to receive credit by examination. Students may not request credit by examination in courses for which they are currently enrolled. Credit by examination may be attempted only once for any given course. The student must score at or above 70 percent to receive credit for the course.

#### **\*Advanced Placement Tests of College Board (AP)**

Beginning freshmen who have received college-level training in secondary school and who present scores of 3, 4, or 5 on the appropriate Advanced Placement Examination will be granted, on request, placement and credit for comparable courses at the College following enrollment and the completion of six semester hours at the College. For more information contact the Coordinator of Testing and Assessment Programs.

### **\*Armed Forces Credit**

In addition to using credit previously earned at other institutions to achieve advanced placement at the College, students may also receive such standing by presenting evidence of having satisfactorily completed a program of military training for which equivalent college credit may be given in accordance with the American Council on Education Standards and Recommendations.

For additional information regarding CLEP Examinations, tests given by College instructors, advanced placement tests, and Armed Forces credit, contact the Coordinator of Testing and Assessment Programs.

### **Graduation**

Students who plan to graduate from Collin County Community College should obtain a degree plan from an advisor located in the Student Development Division. Students may graduate under any of the College's catalogs from the preceding five years as long as the student was enrolled under that catalog; however, students may benefit from graduating under the requirements of a recent catalog.

A student who completes specific course requirements for a degree or certificate with a minimum cumulative grade point average of 2.0 is a candidate for graduation. To graduate, students must complete a minimum of 18 credit hours at Collin County Community College. Advanced placement courses will not meet this residency requirement.

Candidates for graduation must submit an application for graduation and pay the assessed graduation fee no later than the deadline established for that semester. Students planning to complete graduation requirements during a summer session must file for graduation and pay any necessary fees in the preceding spring semester.

### **Registration Procedures**

The College requires that prior to being officially enrolled in courses, a student must complete the necessary registration procedures and pay the required tuition and fees. Until this process is complete, a student is not considered to be officially enrolled. To aid students with the processing of registration, the College has developed several registration alternatives which are listed below:

#### **\*Early Registration**

Through early registration, students may elect to enroll in advance for the subsequent term. This process allows the student to select courses, establish a course schedule, and obtain pre-registration advisement. Tuition and fees are due at the time of registration.

#### **\*Regular Registration**

Regular registration is scheduled prior to the first day of classes. New and returning students are encouraged to register no later than the last day prior to the start of classes.

### **\*Late Registration**

Students who wish to register late for courses must do so prior to the fourth class hour.

### **Residence Requirements**

The State of Texas requires that prior to enrollment, each student must sign an affidavit certifying legal residency.

Texas law defines an in-state resident as an individual, residing in Texas, who has been gainfully employed (or dependent upon a parent who has been gainfully employed) in Texas for the 12 months preceding registration.

An in-county student is an individual who is a resident of Texas and who resides in Collin County at the time of registration.

An out-of-county student is a resident of Texas who resides outside of Collin County at the time of registration.

An out-of-state student does not meet the requirements for Texas residency.

The responsibility for registering under the proper residential classification is that of the student and any question concerning the student's right to classification as a resident of Collin County must be clarified prior to the time of enrollment at Collin County Community College. If a student's residency status changes, it is the responsibility of the student to notify the proper College officials and failure to do so may result in disciplinary action. Students should submit address changes to the Office of Enrollment Management.

Listed below are acceptable documents to support residency:

- Permanent Texas driver's license (at least one year old)
- Texas high school transcript (if enrolled within the last 12 months)
- Texas college or university transcript (if enrolled within the last 12 months)
- Letter of employment (verifying one year's employment)
- Texas voter's registration card (at least one year old)
- Lease agreement covering the past 12 months
- Deed to real property in Collin County (if owned less than 12 months)
- Collin County property tax statements
- Other third party documentation

Students who are dependent on a parent's residence status must also submit the top portion of the Federal Income Tax Form.

Out-of-state or county tuition may be waived for individuals owning real property in Collin County. Contact the Admissions Office for details concerning required documentation.

### **Tuition and Fees**

Tuition is based on residency and the number of credit hours for which a student enrolls. Following is a schedule of tuition and student activity fees by residency classification.

**Special Fees and Charges**

Special fees and charges may be added as necessary and as approved by the Board of Trustees.

Laboratory Fees: \$0 to \$25 a semester, per lab

Audit Fee: \$25 per course plus tuition and fees

Student Activity Fee: \$1 per credit hour in excess of four credit hours, with a maximum of \$10.

Property Deposit: \$1 per student per semester.

Additional fees may be assessed as new programs are developed. These fees will be kept to a practical minimum.

**COLLIN COUNTY COMMUNITY  
COLLEGE DISTRICT  
TUITION SCHEDULE**

CREDIT HOUR *****	IN-COUNTY (\$12 PER CR. HR.) *****	OUT-OF-COUNTY (\$16 PER CR. HR.) *****	OUT-OF-STATE (\$45 PER CR. HR.) *****
1	*\$ 25	\$ 25	\$200
2	\$ 25	\$ 32	\$200
3	\$ 36	\$ 48	\$200
4	\$ 48	\$ 64	\$200
5	\$ 60	\$ 80	\$225
6	\$ 72	\$ 96	\$270
7	\$ 84	\$112	\$315
8	\$ 96	\$128	\$360
9	\$108	\$144	\$405
10	\$120	\$160	\$450
11	\$132	\$176	\$495
12	\$144	\$192	\$540
13	\$156	\$208	\$585
14	\$168	\$224	\$630
15	\$180	\$240	\$675
16	\$192	\$256	\$720
17	\$204	\$272	\$765
18	\$216	\$288	\$810
19	\$228	\$304	\$855
20	\$240	\$320	\$900
21	\$252	\$336	\$945

NOTE: LAB FEES AND STUDENT ACTIVITIES FEES ARE ADDITIONAL COSTS

\*a minimum fee of \$25 will be charged

**Satisfactory Progress**

In order to guide and encourage students to maintain satisfactory academic progress toward the completion of their goals, the College has established the following standards:

0 - 9 semester hours            1.0 minimum GPA

10 - 17 semester hours        1.5 minimum GPA

18 or more semester hours    2.0 minimum GPA

Students whose academic progress is below these standards at the conclusion of any term are not considered to be maintaining satisfactory academic progress. Students completing ten hours and who do not meet these standards will be placed on academic probation and notified in writing of the probationary status. A student on academic probation will be asked to meet with a member of the Student Development staff and/or the student's academic advisor to plan a corrective action program. Such a program may include restrictions on the number of credit hours attempted, supplemental assistance, and/or other developmental requirements.

Students unable to meet the above minimum academic standards at the end of the term of academic course work following the imposition of probationary status will have their progress reviewed for remediation or academic suspension. A student who has been academically suspended may be readmitted on probation only after one term absence from the College and may be required to participate in developmental and remedial programs.

Veteran students who make unsatisfactory academic progress will be reported to the Veterans Administration at the end of the second consecutive semester on probation when the cumulative GPA remains below 2.0. If a non-punitive grade is assigned to a veteran and will not be converted to a punitive grade within a limited period of time, this will be reported to a VA Regional Office within 30 days of issuance of the non-punitive grade and benefits will be reduced accordingly.

Eligibility to receive financial aid and/or other benefits such as Veterans Administration benefits will be jeopardized by students who fail to meet these academic standards of progress. For additional information, contact the Enrollment Management Office.





### **Student Classifications**

- Freshman:** A student who has successfully completed fewer than 30 credit hours.
- Sophomore:** A student who has successfully completed 30 or more credit hours.
- Full-time:** A student enrolled for 12 credit hours or more in a regular semester or six credit hours or more in a Summer session.
- Part-time:** A student enrolled for 11 credit hours or less in a regular semester or five credit hours or less in a summer session.

### **Student Load**

A full-time student load is a minimum of 12 semester hours per regular term. Students taking 11 semester hours or less per term are classified as part-time students. Full-time status during the summer terms or accelerated terms may vary. For clarification, see the Director of Enrollment Management.

Students may, with special permission of the appropriate academic administrator, enroll for more than 18 credit hours during a regular term and seven hours in a summer session. Normally, permission will not be granted unless the student has a 3.0 cumulative grade point average and plans to carry no more than 21 hours during a long term or 9 hours or less during a short summer term.

### **Veterans' Certification**

Veterans wishing to enroll and receive benefits should contact the Director of Financial Aid/Veterans Affairs. In order to receive benefits, veterans must maintain satisfactory progress as stipulated by the Veterans Administration and College policy. All prior credit earned through civilian or military education must be submitted to the Director of Admissions for transfer evaluation.

### **Withdrawal from College**

Students may withdraw from all College classes at any time prior to the posted drop date as stated in the academic calendar. Withdrawal from the College must be student initiated and the withdrawal form must be signed by the student and faculty advisor or student development advisor. Students may also withdraw from the College by submitting in writing a request for such action. The request must include the official signature of the student and the student's address, social security number, phone number(s), and course names and numbers. The date as postmarked on the envelope will be the official withdrawal date. The appropriate division dean must approve any exceptions.

## **STUDENT CODE OF CONDUCT**

### **Student Code**

Collin County Community College District students are both citizens and members of the academic community. As citizens and students they enjoy the same freedom of speech, peaceful assembly, and right of petition that other citizens enjoy. As members of the academic community, they are subject to the obligations which are theirs by virtue of this membership.

The District expects its students to conduct themselves in such a way as to reflect credit upon the institution they represent. There are two basic standards of behavior required of all students: 1) they shall adhere to District policies, and municipal, state, county, and federal laws; and 2) they shall not interfere with or disrupt the orderly educational processes of the District. Students are entitled to only those immunities or privileges by law as enjoyed by other citizens. For more information, see the *Student Handbook* or the Office of the Vice President for Student Development.

### **Release of Information**

In compliance with the Family Rights & Privacy Act of 1974, Federal Law 93-380, information classified as "Directory Information" may be released to the general public without the consent of the student. Directory information is defined as:

1. Student name
2. Student address
3. Telephone listing
4. Dates of attendance
5. Most recent previous educational institution attended
6. Other information including major field of study and degrees and awards received.

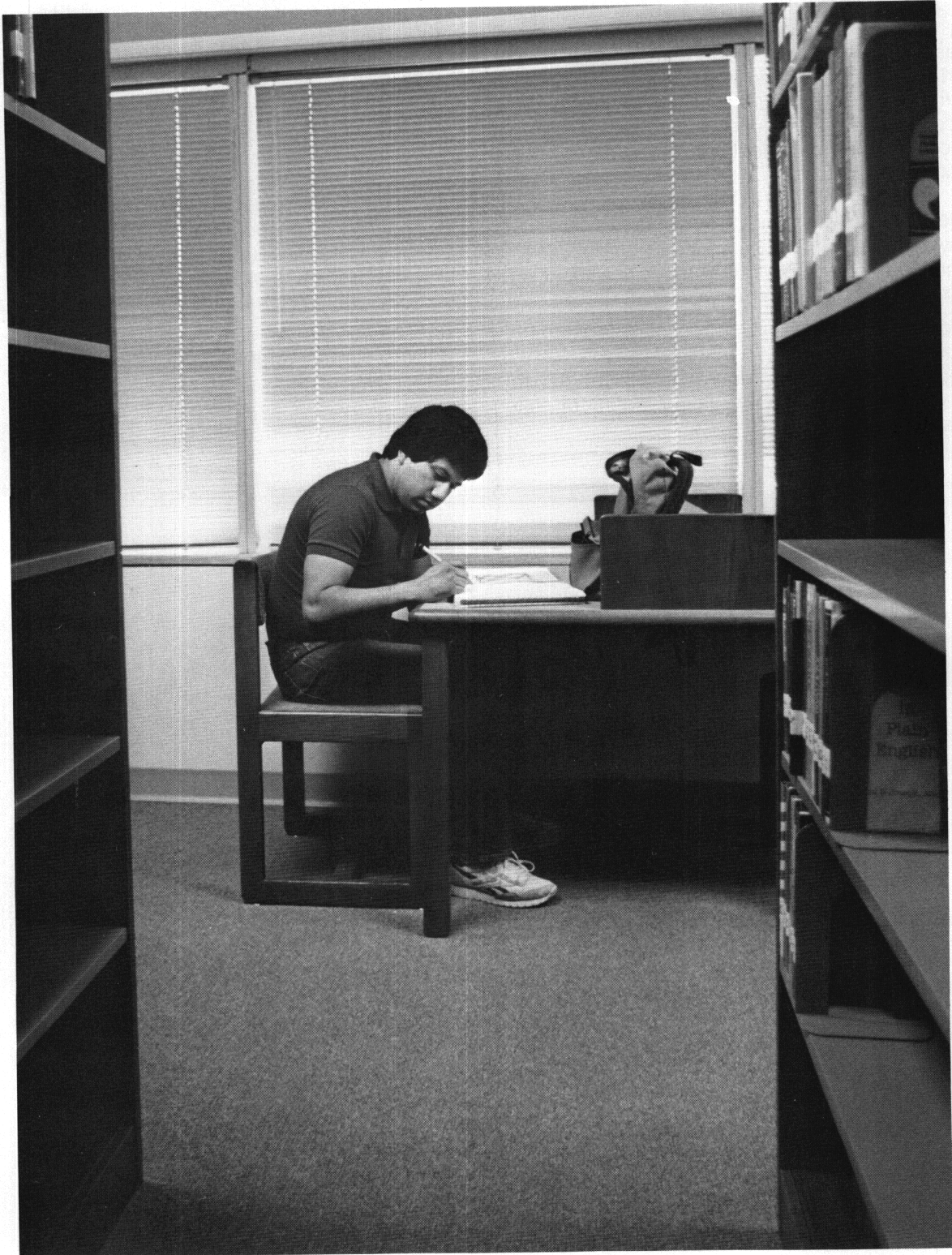
A student may request that all or any part of the directory information be withheld from the public by making a written request to the Director of Enrollment Management/Registrar's Office during the first twelve days of a Fall or Spring Semester or during the first four days of a summer session. If no request is filed, information will be released upon inquiry. Directory information is the only part of a student's record that may be released without the consent of the student. No transcript or inquiries concerning an academic record will be released without consent of the student specifying the information to be released.

#### **Restricted Access to Records**

The following persons, agencies, and organizations may have restricted access to student records without prior written consent of the student:

- a) school officials and instructors with a legitimate educational interest;
- b) representatives of state, federal, and local government when auditing and evaluating federal or state education programs;
- c) financial aid officers to process a financial aid application or forms;
- d) governmental officials to which information is to be reported under state law;
- e) accrediting organizations for accrediting purposes;
- f) appropriate persons in case of emergency, if such information is necessary to protect the health or safety of the student or others;
- g) organizations approved by the President or his designee conducting studies for, or on behalf of, educational agencies or institutions for the purpose of developing, validating, or administering protective tests, administering student aid programs, and improving instruction, if such studies are conducted in such a manner as will not permit the personal identification of students and their parents by persons other than representatives of such organization.

Information will be destroyed when no longer needed for the purposes for which it was collected.



# General Information

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## Accreditation

Collin County Community College has been awarded candidacy status by the Southern Association Commission on Colleges. The candidacy status is effective retroactively to January 1, 1986.

The awarding of candidacy status makes the College eligible for government and private foundation funding, provides a means of affiliation with member institutions, and simplifies the process for students transferring to other colleges and universities.

## Academic Calendar

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### FALL 1988

Registration	August 16 - 27
First Day of Class	August 29
Late Registration/Add/Drop	August 29 - 30
Labor Day Holiday	September 5
Last Day to Withdraw	November 12
Thanksgiving Holiday	November 24 - 27
Final Exams/Textbook Buyback	December 13 - 17
Last Day of Semester	December 17

### SPRING 1989

Registration	January 9 - 14
First Day of Class	January 16
Late Registration/Add/Drop	January 16 - 17
Spring Break	March 20 - 26
Last Day to Withdraw	April 8
Final Exams/Textbook Buyback	May 9 - 13
Last Day of Semester	May 13

### SUMMER 1989

Memorial Day Holiday	May 29
Registration Summer/Fall	June 1 - 3
First Day of Class - Summer I and III	June 5
Late Registration - Summer I and III	June 5 - 6
Classes Meet - all Summer I and T/R Summer III - Makeup day for July 4 Holiday	June 9
Last Day to Withdraw - Summer I	July 1
Independence Day Holiday	July 4
Final Exams/Textbook Buyback Summer I	July 6
Registration - Summer II	July 6 - 7
First Day of Class - Summer II	July 10
Late Registration - Summer II	July 10 - 11
Last Day to Withdraw - Summer III	July 22
Last Day to Withdraw - Summer II	August 5
Final Exams/Textbook Buyback Summer II & III	August 10
Last Day of Semester - Summer II & III	August 10

### Bookstore

The CCCC Bookstore is an auxiliary enterprise of Collin County Community College. Textbooks are selected by the faculty and ordered through the bookstore. Book prices are established by the publisher and change at their discretion. The majority of textbooks are billed to the College at the selling price less 25 percent. Used books, sold at 75 percent of the new price, are purchased by the bookstore wherever available.

**Textbook Refunds:** Students who change courses or select the wrong books may return the books for a refund under the following conditions:

1. Books are returnable during the first ten class days of the Fall and Spring Semesters, and the first five days of the Summer Semesters.
2. Students must have the cash register receipt for a refund. Students should *always* keep their receipts.
3. Students should not write in new books until they are certain they have the correct books. New books which have been written in will not receive a full refund.
4. Books in shrink wrap (plastic or vinyl packaging) must be returned in the original package. Books cannot be accepted if the shrink wrap has been removed.
5. Defective books will be replaced at no charge and should be returned at once.

**Textbook shortages:** The bookstore makes every effort to have the required textbooks by registration week. For various reasons, there may be shortages—out-of-print or out-of-stock by the publisher, unexpected increases in enrollment, late placement of orders by the faculty, missing shipments, and human error. Every attempt is made to minimize these problems.



**Book buyback:** Books are bought back at the end of each semester during the days of final exams. The faculty decides whether a textbook will be used again. If a faculty member has informed the bookstore that he/she will require a particular book for the upcoming semester, the bookstore will pay the student 50 percent of the original price of the book, regardless of whether the book was purchased new or used. Workbooks and study guides cannot be bought back. Unless a faculty member tells the bookstore that he/she will use that title again, the bookstore must assume that it will not be used. Books falling into this category can be bought from students only at used wholesale prices. Old editions have no value and cannot be resold even to wholesalers. Some courses at CCCC are not taught every semester, and students may wish to sell their books when that course is offered again, if the faculty member requires the same books.

**Check cashing:** Checks may be cashed in the amount of ten dollars with or without a purchase. Mastercard and VISA, as well as checks and cash, are accepted as payment.

### Disabled Students

Both the Central Campus and the Spring Creek Campus are accessible to disabled individuals. Special facilities such as elevators, restrooms, and parking are provided to make college life more convenient. Advisors in the Student Development Center will make arrangements to provide whatever additional assistance is needed.

### Emergencies (Reporting)

If an emergency should arise on campus, report it to the switchboard receptionist located on the first floor of each campus. Contact faculty within the classroom if a problem should arise during class time. Emergency medical services will be provided for students when necessary. First aid kits are available at the switchboard, Physical Plant, and Student Development at each campus.

If an emergency arises at an off-campus location, immediately notify a faculty member, who will then notify the building site supervisor.

### Emergency Closing of the College

The President or his designee has the authority to discontinue instructional sessions because of extreme weather or other emergency conditions. If classes have been cancelled, local radio and television stations will make the announcement. A decision to cancel classes will usually be made by 3 pm for evening classes and by 6 am for day classes.

## CCCC Office and Phone Directory

	Central		Spring Creek	
	phone number	room number	phone number	room number
General Information	548-6790		881-5790	
Administrative Svcs.	548-6620	A112	881-5620	
Admissions	548-6710	B209	881-5710	G103
Arts and Social Sciences Division	548-6810	B305	881-5810	B189
Bookstore	548-6680	A104	881-5680	G124
Business and Industry Division	548-6830	A206	881-5830	F135
Business Office	548-6630	A111	881-5630	G136
Continuing Educ. and Economic Dev.	548-6850	A354	881-5850	F102
Developmental Educ.	548-6720	B117	881-5720	K104
Enrollment Mgmt / Financial Aid	548-6740	B216	881-5740	G103
Institutional Advancement	548-6611	A129	881-5611	
Library/Learning Resources Ctr.	548-6860	B105	881-5860	D151
Personnel	548-6660	A121	881-5660	
Physical Plant	548-6690	A116	881-5690	K020
President's Office	548-6600	A130	881-5600	
Public Information	548-6610	A125	881-5610	
Registration	548-6740	B216	881-5740	G103
Science and Health Division	548-6880	A305	881-5880	K102
Student Development	548-6700	B209	881-5700	G118
Vice President of Student Dev.	548-6701	B209	881-5701	G118
Vice President of Instruction	548-6800	A302	881-5800	B218
For offices not listed	548-6790		881-5790	

Note: Areas without a room number listing for the Spring Creek Campus are officed only at the Central Campus.



# STUDENT LIFE.... INVOLVEMENT IN LEARNING

## EXPERIENTIAL LEARNING

Collin County Community College is committed to a competency-based curriculum which emphasizes experiential learning. Many of the courses and programs include a laboratory element which focuses on the application of methods of inquiry. This allows students to integrate cognitive and affective learning. A variety of learning laboratories are in use at CCCC to facilitate experiential learning by students. These facilities include Science Labs, a Word Processing Lab and Model Office, a Language Lab, and the Alternative Learning Center. Other labs include:

### Math Lab

To enable students to secure instructional assistance in mathematics, a fully staffed math lab is provided for students enrolled in developmental and college mathematics courses. In addition to professional and peer tutoring, students have an opportunity to utilize slide tapes, videos, and computerized programs to reinforce classroom lectures. The math lab is open Monday through Thursday from 8 am to 9:30 pm, Friday from 8 am to 4 pm, and Saturday from 9 am to noon. The drop-in lab hours vary each semester and a published schedule is made available at the beginning of each term.

### Writing Lab

CCCC is committed to writing-across-the-curriculum and encourages students to utilize the services available in the writing center. The purpose of the writing center is to allow students desiring help with writing assignments to obtain it, to offer supplemental preparation for English 151's Writing Competency Exam (WCE), and to foster the writing-across-the-curriculum program by providing writing instruction for students with writing assignments in other disciplines. The schedule of hours is published each semester and no appointment is necessary.

### Interdisciplinary Lab

The Interdisciplinary Lab is a place where students come together from different disciplines to creatively learn and to share learning. A goal of this lab is to demonstrate the connectedness of academic subject areas.

### Career Lab - "Future Shop"

The purpose of the "Future Shop" is to help students make career decisions which meet their individual needs and desires. In the lab, students have the opportunity to explore various careers, learn interviewing and resume-writing skills, and get job placement assistance.

Resources available in the lab include numerous interest and aptitude inventories, occupational and career guidance publications, and a computerized job referral system. Career Awareness Week, offered each year through the Future Shop, gives students the opportunity to gain information from area employers.

### Social Science Lab

The Social Science Lab provides students with the opportunity to conduct research in any of the social sciences. This includes practical applications of theoretical principles from course work as well as original projects to promote the use of methods of inquiry in the respective social sciences.

The laboratory is equipped with computers, audio-visual equipment, biofeedback equipment, and other state-of-the-art equipment. The facility includes an observation booth that connects the two laboratory research rooms.

### Open Computer Lab

The Instructional Computer Labs provide general assistance in the use of microcomputers for the completion of lab assignments. The labs operate on a drop-in basis and provide an atmosphere for non-traditional learning experience in all areas of instruction. Many programs offered at CCCC utilize microcomputers as an integral component of their courses.

Software is available for word processing, electronic spreadsheet, database applications, text editing, graphic arts, programming, and computer-aided instruction in many subjects. Other materials available include business magazines, computer magazines, tapes and slides for self-paced courses, and software manuals.

In addition to the learning laboratories on campus, many programs offer internship and cooperative work experience opportunities to students. This on-the-job experience allows students to obtain valuable career training while completing academic courses and programs.

Two other labs at CCCC are integral components of student success. They are the Advising Lab and the Articulation and Transfer Lab. For further information on these, see pages 29 and 30.



## LIBRARY/LEARNING RESOURCES CENTER

The Library/Learning Resources Center is located on the first floor of the Central Campus in McKinney and is a two-story facility facing the atrium at the entrance to the Spring Creek Campus. Available materials include the following:

Books	60,000
Videotapes	3,000
Phonograph Recordings	1,200
Periodicals	650

Most of the materials are available for home use. A computerized system is available to help students and faculty locate these materials.

Hours: The Library/Learning Resources Center is scheduled to be open during the following hours for the 1988-89 term:

<i>Central Campus</i>	
Monday - Thursday	7:45 am - 9:30 pm
Friday	7:45 am - 5 pm
Saturday	8 am - noon
Sunday	closed

<i>Spring Creek Campus</i>	
Monday - Thursday	7:45 am - 10 pm
Friday	7:45 am - 5 pm
Saturday	8 am - 4 pm
Sunday	1 pm - 5 pm

Special hours and break periods will be announced in advance. All hours are subject to change.

**Both libraries**—the one at the Central Campus in McKinney, and the one at the Spring Creek Campus in Plano—are available for use by students. The total collection of 60,000 volumes will be reflected in the Computer Catalog at both campuses and will show the location of books by campus. Each campus will not necessarily have the same books or other materials. Students will have the option of visiting and using both campuses or arranging to have books and tapes delivered from one campus to another within a 24-hour period.

\*Special Features of the LRC at Spring Creek—

**Bijou I and II:** Learning Theatre available to students to view feature films and educational videotapes in a non-classroom setting. These theaters will be available on a scheduled basis with a weekly program guide available.

**Individual Viewing Booths:** These are located throughout the library and are available to students to view videotapes on an individualized basis.

**AHE Catalog on Compact Disc:** A computer terminal is available which shows the holdings of five Association of Higher Education libraries: Baylor University, Dallas County Community College District, Dallas Public Library, University of North Texas, and University of Texas at Arlington. These compact discs not only give you the catalog of the five libraries, but they also make the over one million volumes available to you in interlibrary loan by way of an overnight courier service.

**Texasville Room:** A lounge area available to students with informed learning experiences available.

**Microcomputer Laboratory:** A sophisticated networked Micro-computer Laboratory available to students for course related learning activities.

**Interdisciplinary Laboratory:** A self-help student production lab with equipment and technical assistance to help students in the production of videotape, slides posters and other project material related to their coursework.

**Loan Period:** Books may be checked out for three weeks. Books may be returned at either the Central or Spring Creek campus and must be returned by the due date stamped on the slip in the inside front cover of the book.

**Photocopying:** A coin operated photocopy machine is available for student use in the LRC of both campuses. The cost is ten cents per page copied.

**Community Borrowers:** All residents (students and non-students) of Collin County are welcome to use the LRC and check out materials. For community borrowers who are non-students the only requirements are that the individual be 18 years of age and show proof of residency within Collin County. There is no charge for borrowing privileges to non-students.

**Alternative Learning Center:** Students who require flexibility in scheduling in order to attend college classes may find the Alternative Learning Center a substitute for the traditional class schedule. The center provides individual and small group tutoring, laboratory learning experiences, and laboratory learning experiences related to lab components in many courses. Television courses are available through the ALC and are broadcast on KERA (channel 13) and taught in a lab environment or are available for review. Writing and Reading elements of the Developmental Education program are available in the ALC.

**LRC Handbook:** A handbook is available to students to assist them in learning how to use the library.

## STUDENT SUCCESS PROGRAMS

The College offers many specialized programs and activities that are designed specifically to help students achieve their academic and career goals. The following are some of the program areas devoted specifically to helping students succeed:

- **Orientation-Student Success Series**

At Collin County Community College, orientation is much more than a one day program about services and activities available through the College. The CCC orientation process begins prior to enrollment, may last an entire term, and is an ongoing series to help students learn. Students who want to meet with advisors, faculty, and other staff to learn more about CCC may do so at a regular orientation session. Other students may wish to participate in other self-directed programs offered each term.

The Student Success Series is one of the self-directed orientation programs. Tapes are available in areas such as: what to know prior to registration; how to register; tips on being successful during the first term; effective study skills; how to choose a career; how to transfer successfully; and many other areas of interest to students: These tapes are available in the "Future Shop" in the Student Development Center.

- **Academic and Career Assessment**

Professional services are available on each campus to assess students' skills in areas such as reading, writing, and mathematics, as well as career interests. Sometimes a student's success is dependent upon the appropriate selection of a major field of study. To assist students with the selection, professional staff are available through the Testing Center and the "Future Shop" Laboratory.

- **Personalized Advising**

All students are afforded the opportunity to be assigned a full-time faculty or staff person as their personalized advisor. Students are encouraged to take advantage of opportunities to meet with advisors as frequent contact may enhance learning and academic success.

- **Publications**

Various brochures and publications, such as the *Student Handbook*, are available to update students on services and programs designed to enhance learning at CCC. A student newsletter, the "Student Update," is published monthly through the Office of Student Activities. These and other publications are available on each campus in the Student Development Center.

- **Human Development Programs**

Credit and non-credit courses and seminars are available for students wishing to enrich their development in areas such as study skills, stress management, leadership development, test taking, personal development, and career planning. Through the Alternative Learning Center located

in the LRC, students may utilize other programs such as self-paced workshops on time management and study skills.

- **Developmental Education**

Developmental Education courses are designed to provide students with the basic skills needed to achieve success in college level courses. Currently, courses are offered in math, reading, and writing. The instructional formats vary and include individualized, self-paced, and lecture approaches. If a student's basic skills assessment scores indicate that the student would be better prepared by taking a Developmental Education class prior to enrollment in a college level class, the student will not be allowed to enroll in the college-level class without special permission.

These developmental classes and other programs are specifically designed to help students gain the self-confidence and academic skills to better prepare them for successful completion credit courses. By fall 1989, the implementation of Texas House Bill 2182 will mandate that students who are not ready for college-level courses must take the developmental classes.

## ENROLLMENT MANAGEMENT

### Pre-Enrollment Assessment

In an effort to ensure that all students pursuing higher education have certain basic skills, the State of Texas enacted legislation requiring the following:

The Texas State Education Code requires that all students "... who enter public institutions of higher education in the fall of 1989 and thereafter must be tested for reading, writing and mathematics skills." This includes all "... full-time and part-time freshmen enrolled in a certificate or degree program...", any non-degree students prior to the "accumulation of nine or more [college] credit hours or the equivalent," and "... any transfer students with fewer than 60 semester credit hours or the equivalent who has not previously taken the tests."

Performance on the test will not be used as a condition of admission.

A student may not "enroll in any upper division course [the] completion of which would give the student 60 or more semester credit hours or the equivalent until the student's test results meet or exceed the minimum standards in all test scores." Other assessment procedures may be used in exceptional cases to allow a student to enroll in upper division courses "... in cases where test results do not meet minimum standards" [Texas Education Code. Sec. 51.306].

The test fee will be paid by the student.

Note: At the time of printing of this catalog numerous details about this test have not been finalized by the State. For specific current information about this test and CCCC's testing practices contact the Admissions Office. Please note that, in addition to the State test, the College reserves the right to use additional tests and measures for diagnostic and course placement purposes. Developmental classes and tutorial assistance are available for students who need or want this support. Students who plan to enroll in courses (fall 89) need to comply with TASP.

### **Admissions and Advisement**

Results of the TASP do not affect a student's eligibility for admissions; however, it may affect the courses for which a student may register. For more information on advisement and local assessments contact the Advising Lab staff.

### **Official Degree Plans/Evaluations**

Degree plans help students map their program of study in the College. Specific degree plans for AA, AS, AAS Degrees, and certificate programs may be obtained from the Student Development Center at either campus. The College will officially evaluate credit received from other institutions to determine a student's progress toward a specific degree plan. The official evaluation may be requested at any time, but will be completed and recorded on the student's CCCC transcript only after the completion of six semester hours at CCCC.

### **Transcripts**

Students wishing a transcript of their work at Collin County Community College may do so by contacting the Enrollment Management Office. Requests for official transcripts must be made in writing to the Director of Enrollment Management. An unofficial transcript/grade report will be mailed to students at the end of each term.

### **Registration**

A student may register for classes at CCCC by following these easy steps.

## **NEW STUDENTS**

### **GENERAL INFORMATION**

1. Obtain application and registration forms and receive up-to-date information about the schedule of classes and required prerequisites and assessments.

### **ASSESSMENT**

2. Assessment will be required for students planning to take English 151 (Composition/Rhetoric) or any math course.

### **ADVISING**

3. Academic advisors are available to help you plan your schedule. If you would like to be assigned to an academic advisor, contact the staff in the Advising Lab.

### **ADMISSIONS**

4. Your eligibility for admissions and your residency is determined at this checkpoint. A valid Texas driver's license or Texas voter registration card that is at least one year old will usually be sufficient to establish residency. See the back of the application form or page 14 for more information.

### **APPLICATION DATA ENTRY AND REGISTRATION**

5. The information on your application and your course schedule are loaded into the computer so that you can register for classes. Registration times and locations are listed in the schedule of classes for the appropriate term.

### **PAYMENT OF TUITION AND FEES**

6. You may pay with cash, check, VISA, or Master Card. Payment is to be made at the time of registration.

### **ORIENTATION/STUDENT SUCCESS SERIES**

7. Orientation sessions are designed to provide helpful information to ensure your success as a student. Have your questions answered and be off to a positive start by attending an orientation session or participating in the Student Success Series.

## **RETURNING STUDENTS**

### **GENERAL INFORMATION**

1. Pick up registration forms and receive up-to-date information about the schedule of classes.

### **ASSESSMENT**

2. Assessment will be required for students planning to take English 151 (Composition/Rhetoric) or any Math course.

### **ACADEMIC ADVISING**

3. Meet with your academic advisor during Advising Week, so you can plan your schedule of classes. If you would like to be assigned to an academic advisor, contact the staff in the Advising Lab.

### **REGISTER FOR CLASSES**

4. Returning students may register by proceeding direct to "Station 6" to have their schedule entered into the computer. Registration times and locations are listed in the schedule of classes for the appropriate term.

### **PAYMENT OF TUITION AND FEES**

5. You may pay with cash, check, VISA, or Master Card. Payment is to be made at the time of registration.

*NO change*

## Financial Aid

As a service to Collin County Community College students, the Student Financial Aid Office administers a financial aid program which includes scholarships, grants, loans, and part-time employment. Our financial aid officers are trained to assist students in realizing their goals.

A primary purpose of the College's financial aid program is to provide assistance for students who otherwise might find it difficult or impossible to attend college. All students are encouraged to apply for financial aid. Students should not withdraw from college for financial reasons without having first consulted with the Director of Financial Aid/Veterans' Affairs.

The following financial aid programs are available to CCC students:

### Federal Assistance

#### Pell Grant

Eligibility for the Pell Grant is based on the financial strength of the student and/or the student's family as well as the student's enrollment status.

#### Supplemental Educational Opportunities Grant (SEOG)

The SEOG provides assistance for eligible students who show financial need and are making satisfactory progress towards their educational goal. Priority consideration is given to the students demonstrating the greatest amount of financial need.

#### College Work Study (CWS)

Students demonstrating financial need may be considered for the Work Study Program. Students are employed to work at various jobs on campus or at other District sites. They are allowed to work to earn the amount that is designated in their award package. This can range from \$200 to \$3,000.

#### Guaranteed Student Loan Program (GSL)

This program permits a student to borrow money from a commercial lending agency without need for collateral. The Federal Government guarantees repayment of the loan and also pays interest on the amount borrowed until six months after the student graduates or ceases to be at least a half-time student.

### State Assistance

#### Texas Public Education Grant (TPEG)

The TPEG Program is a State financial aid program to assist students attending State supported colleges. Students must show financial need and be making satisfactory progress toward their educational goals. The actual amount of the grant will vary depending on the availability of funds to the college, the student's family financial condition, and other financial aid the student may be receiving.



#### Texas Public Education - State Student Incentive Grant (TPE-SSIG)

The TPE-SSIG is a State program whereby grants are based upon the financial need of the applicant. Eligibility is determined by the College based upon the results of the financial aid need and the availability of funds.

#### Hinson Hazlewood Student Loan Program (HHSLP)

This is a State loan program, similar to the GSL. Repayment of the loan begins six months after the student ceases to be enrolled at least half time. Deferment of repayment is available under specific conditions.

### Scholarships

Scholarships at Collin County Community College are generally awarded on the basis of academic achievement, need, or a combination of both. Scholarships are designed to encourage and assist students in pursuing academic excellence and leadership roles. All students are encouraged to apply. Scholarship information is available in the Financial Aid Office.

### Tuition Waivers

The State of Texas offers a number of tuition exemption programs. These programs provide exemptions from certain tuition and fee charges in public colleges. Applications and information about these tuition waivers may be obtained in the Financial Aid Office. A few of the tuition waivers are:

- **Hazlewood Act**
  - **Honor Graduate**
  - **Orphans of National Guard Members**
  - **Blind, Deaf Students**
  - **Children of Disabled Firemen and Peace Officers**
  - **Children of Prisoners of War or Persons Missing in Action**
  - **Firemen Enrolled in Fire Science Courses**
- Veterans' Educational Benefits**
- Other Forms of Assistance**

Many of the financial aid programs listed are under constant state and federal review. These programs and awards are subject to change.

Students may apply for financial aid simply by completing a financial aid form which is available in the Financial Aid Office and in most high school counseling offices.

**Financial Aid Disclaimer:** The Collin County Community College District does not guarantee by the printing of these financial aid opportunities that they will be available to students at all times. The District has applied for state and federal aid and has received a number of scholarships. However, for specific information regarding the current status of financial aid, veterans benefits, and other forms of funding such as scholarships, contact the Financial Aid Office. All documents requested by the Financial Aid Office must be on file before aid will be dispensed.



## CAREER LAB— “FUTURE SHOP”

The “Future Shop” Laboratory offers students opportunities to bridge the gap between academics and career development. This lab is available on each campus to assist students with career exploration, interviewing skills, resume planning, and other aspects of career planning.

### Career Assessment

The following assessment tools are available through the “Future Shop” Lab:

- Myers-Briggs Personality Inventory
- Strong-Campbell Interest Inventory
- Cops-Interest Inventory
- Copes-Values Inventory
- Computer Assisted Programs
- Career Assessment Inventory
- Sixteen Personality Factor Questionnaire
- “Discover”—A Career Guidance System
- College Search—answers questions about college selections
- PACS—Personal Assessment Career System
- VPI—Vocational Preference Inventory
- FACT—Financial Aid Counseling Tool

### Career Exploration

The following resources are located in each career lab:

- Video/Audio Cassette Library
- Career Library:
  - Occupational Information
  - Career Planning/Job Search
  - Job Hunting Skills
  - Employer Information
  - Personal Development
- Career/Occupational Handouts
- Annual Career Awareness Week
- Workshops/Seminars

### Job Placement

The following services are available in each lab:

- Free Resume/Cover Letter Service
- Interview Coaching
- Job Listings:
  - On Campus/Student Assistants, College Work Study
  - Off Campus/Internships, Job Location and Development, and Cooperative Education
- Computerized Job Referral System
- Graduate Placement Assistance

## ADVISEMENT

Academic advising is an integral component of each student's success at CCCC. Advising is an on-going process at the Central Campus and the Spring Creek Campus, and any student or Collin County resident interested in talking with an advisor should contact the Advising Lab at either campus. If you would like to be assigned to a specific advisor, please contact the Coordinator of Academic Advising. Peer advisors are also available to assist students in the Advising Lab and decentralized in academic divisions.

The academic advising laboratory in the Student Development Center offers the following to students:

- assistance for undecided or new students in selecting a field of study
- a reliable source of information about the College
- facts about classes and programs
- help with registering as a CCCC student and adjusting to college
- assistance in tailoring course selection, course load, and schedules to individual needs
- information about academic requirements
- a source to learn about procedures involving dropping a class, appealing grades, registration, etc
- a place to start when seeking a degree plan, which may be filed upon completion of six semester hours
- transfer information for those seeking to attend a senior institution

## ASSESSMENT AND TESTING SERVICES

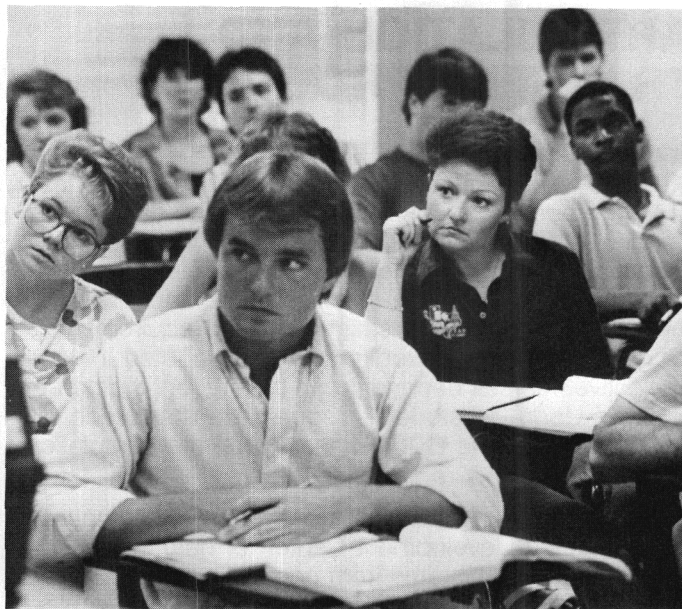
A Testing Center is located on both campuses for basic skills testing, proctoring, and national testing. CCCC is an official testing site for the SAT ACT; and Texas Academic Skills Program (TASP).\*

\*Application for Testing Site pending

### Basic Skills Assessment

Basic Skills Assessment is the process each student must complete to identify his/her strengths and/or weaknesses in the following three areas:

- Reading
- Writing
- Mathematics



Basic Skills Assessment is required for students who wish to enroll in any of the following courses:

Reading: Any college level course which requires college level reading; History, Government, Psychology.

English: English 151

Mathematics: Any Developmental Math course, Math 150, 151, 181 and 182. Other assessments may be required based on faculty and advisor recommendations.

The results of the Basic Skills assessment assists the advisor and the student in proper course placement. The results of the assessments are used for course placement only and do not affect the admission status of the student.

The Testing Center also offers an extensive testing program for students and residents of the community in the following areas:

CLEP - College Level Examination Program

ACT - American College Testing Program

SAT - Scholastic Aptitude Test

CREDIT BY EXAM - Subject tests designed by CCCC faculty

### CORRESPONDENCE TESTING

Note: CCCC Code for CLEP (Spring Creek & Central Campus) 1951

CCCC Code for ACT (Central Campus) 4046

CCCC Code for ACT (Spring Creek Campus) 4209

CCCC Code for SAT (Central Campus) 44-646

CCCC Code for SAT (Spring Creek Campus) 44-702

Students requiring more information on the above programs, should contact the Coordinator of Testing and Assessment.

## ARTICULATION AND TRANSFER PROGRAMS

### Transfer Credits

Students who transfer to CCCC from other institutions of higher education will be awarded credit earned depending on the nature of the credit and the academic program selected. In general, credit for courses equivalent to those listed in the catalog will be accepted if the courses are used to satisfy specific requirements for graduation. Other credits may be accepted in lieu of elective courses depending on the student's program of study. Upon the student's request, transfer credit will be recorded on the CCCC transcript at the completion of six semester hours in residence.

A transfer lab is available to students on both campuses in the Student Development Center for help in moving courses and/or programs from one institution to another without misinterpretation. The ultimate goal of articulation is to produce an educated and productive student knowledgeable in the chosen field of study. Assistance is available in articulation of high school and senior college classes. Transfer assistance for senior college transfers is also available.

- Students are encouraged to meet with an advisor in their field of study.
- Four-year institutions determine courses which will be required for degrees.
- Some courses are designed for job entry and career preparation and may not meet degree requirements.
- Courses in Developmental Education and Human Development are designed for individual skill and personal improvement and generally will not transfer to a four-year institution.

### "Next Step" - Transfer Program

"Next Step" is a program to assist students' transition from CCCC to a four-year institution by providing the following:

- Group tours of four-year institutions
- Peer support through a networking system of transfer students on campus
- Lists of course equivalencies for CCCC and four-year institutions
- Resource materials including questions to ask
- Information on transfer of credit
- Directory listing addresses and phone numbers for four-year institutions
- Course Transfer Guide
- Current information on a Transfer Bulletin Board
- Library of Catalogs for both out-of-state and Texas colleges and universities

## HEALTH SERVICES

The College does not employ a school nurse or physician. However, CCCC is dedicated to the total well being of students. Health fairs, alcohol and drug awareness programs, aerobic and other fitness courses are all geared toward student wellness. Should a student have a psychological or physiological problem, he or she should consult the Dean of Students for assistance.

## STUDENT ACTIVITIES

CCCC administrators and faculty believe that involvement in the educational experience greatly increases the likelihood of a student having a successful and rewarding college career. Students, therefore, are encouraged to participate in co- and extra-curricular activities that will foster social, cultural, and educational growth.

In conjunction with CCCC's laboratory component, many student activities integrate in-class material with events outside the traditional classroom environment. Guest speakers, exhibits, and displays on a variety of topics, and field trips to interesting places throughout Texas, are all part of student activities.

Additionally, the student activities department offers the more traditional campus events such as entertainers, films, trips to sporting events, and picnics. A variety of student clubs and college task forces offer opportunities for involvement, and students are encouraged to form new organizations to facilitate their own interests. The Coordinator of Student Life is available to assist students in becoming involved in College programs and activities.

### Involvement in Institutional Governance

Students are encouraged to become involved with institutional governance by expressing their ideas and opinions regarding College policies and activities. The President, Vice-Presidents, and other administrators of the College are interested in the reactions, opinions, and ideas of the students. Students are encouraged to join college task forces to express their ideas and opinions, and to submit articles for the "Student Update."

In addition, students are encouraged to form relevant clubs, organizations, and special interest groups to facilitate their own interests and become involved with the College through co- and extra-curricular activities.

The Coordinator of Student Life will assist interested students in becoming involved in institutional governance and College programs.

### **Fitness Center**

A major emphasis of the Health, Physical Education, and Recreation Department at Collin County Community College is to encourage lifetime fitness. Students may use the fitness center at either the Central or Spring Creek Campus during the times posted. The Central Campus fitness center consists of locker room facilities, universal weight machines, rowing machines, treadmill, bicycles, and aerobic dance area. The Spring Creek fitness center consists of the main gymnasium with rubber running track, weight training room with Universal Super Circuit, single station weight machines, free weights, treadmills, stairmaster, rowing machines, bicycle ergometers, dance studio, four racquetball courts, locker room facilities with sauna, six lighted tennis courts, outdoor running trail, and playing fields.

Collin County residents who are not enrolled at the College will have the opportunity to take advantage of these facilities at night and on the weekends with a membership card.

### **Intramurals**

The intramural sports program includes volleyball, basketball, flag football, softball, archery, racquetball, and tennis. These are an integral part of the total physical education program at CCCC.

### **Athletics**

Starting in the fall of 1988 the College will offer intercollegiate athletics in men's basketball and women's volleyball. In the near future CCCC will begin developing men's and women's tennis, men's golf, and men's baseball. College teams are affiliated with the National Junior College Athletic Association (NJCAA) and participate in regional events which lead to possible national competition. To participate in intercollegiate athletic programs at CCCC students must be enrolled full time (12 semester hours) and maintain a 2.0 GPA each semester.

### **Music Program**

The music department at Collin County Community College offers a full curriculum of music study including Music Theory, Music Literature, Choral and Instrumental Ensembles, and private lessons.

Students and community members interested in musical performance are encouraged to join one of three choral groups: Jazz choir, Concert choir, and Community choir. Admission to the jazz choir is by audition only. Performances by all three choirs are held throughout the school year, both on and off campus.

The new music facility at Spring Creek will house band and choral rehearsal rooms, a 16-track professional recording studio, five practice rooms, a CAI music lab, and a MIDI electronic piano lab.

### **Speech/Theatre Programs**

The speech communication and theatre areas of CCCC offer a wide range of opportunities for students interested in the performing arts and various forms of communication. Credit courses in these areas go beyond the classroom to allow students to develop their communication and performance skills.

SPCM 291 (Oral Interpretation) provides the opportunity to deliver dramatic and humorous monologues and to practice poetry and prose recitations. Students end the semester with a campus-wide readers' theatre production. Students in SPCM 192 (Forensics Workshop) participate in faculty-student debates, campus auctions, and speech competitions throughout the country. Students enrolled in JOUR 152 (Newspaper Writing) will be involved with publishing a school newspaper.

In addition to communication classes, students have a multitude of opportunities for dramatic performance through the newly developed theatre program. From small "black box theatre" shows to large-scale musical productions, the theatre department gives experience to all levels of performers.





# Continuing Education

## . Your connection to lifelong learning

Collin County Community College is dedicated to presenting dynamic and flexible educational programs to the community throughout our geographical area.

We strive to make programs readily accessible and bring “lifelong learning” opportunities to you as conveniently and economically as possible.

Lifelong learning goes beyond initial career preparation, traditional concepts of full-time study and program degree completion and encourages education renewal. CCCC endeavors to provide lifelong learning for people of all ages to develop their personal and professional potential, upgrade job-related skills, and prepare for informed participation in the civic, cultural, and political life of the community.

The College, through “Enterprise,” can provide services which encompass a broad range of purposes:

...addressing adults’ career needs by assisting them to cope with the explosion of new information and techniques, work toward job advancement, or move into a new career.

...providing job-specific customized training for use by business and industry with curricula relevant to needs of the local economy.

...contributing to the growth and development of local business and industry through economic development activities on local, state, and national levels.

...responding to the non-academic or extra-curricular interests and needs of adults by providing a sufficient number of personal development courses by request.

...offering community service activities designed to help disadvantaged individuals and communities.

...facilitating the interplay between the College and the community.

...expanding awareness and understanding of public issues affecting the local, state, and national economy.

...providing cultural activities that enhance the community’s awareness of the arts.

Each of these specific purposes within “Enterprise” relates to the purpose of promoting the philosophy of “lifelong learning” at CCCC.

A vital part of “Enterprise” is a flexible continuing education program which offers courses, programs, and conferences geared to professional development. Course material is adapted to the needs of the particular groups of participants. Courses may be started at any time there

is sufficient enrollment and are continued as long as necessary to meet participant needs.

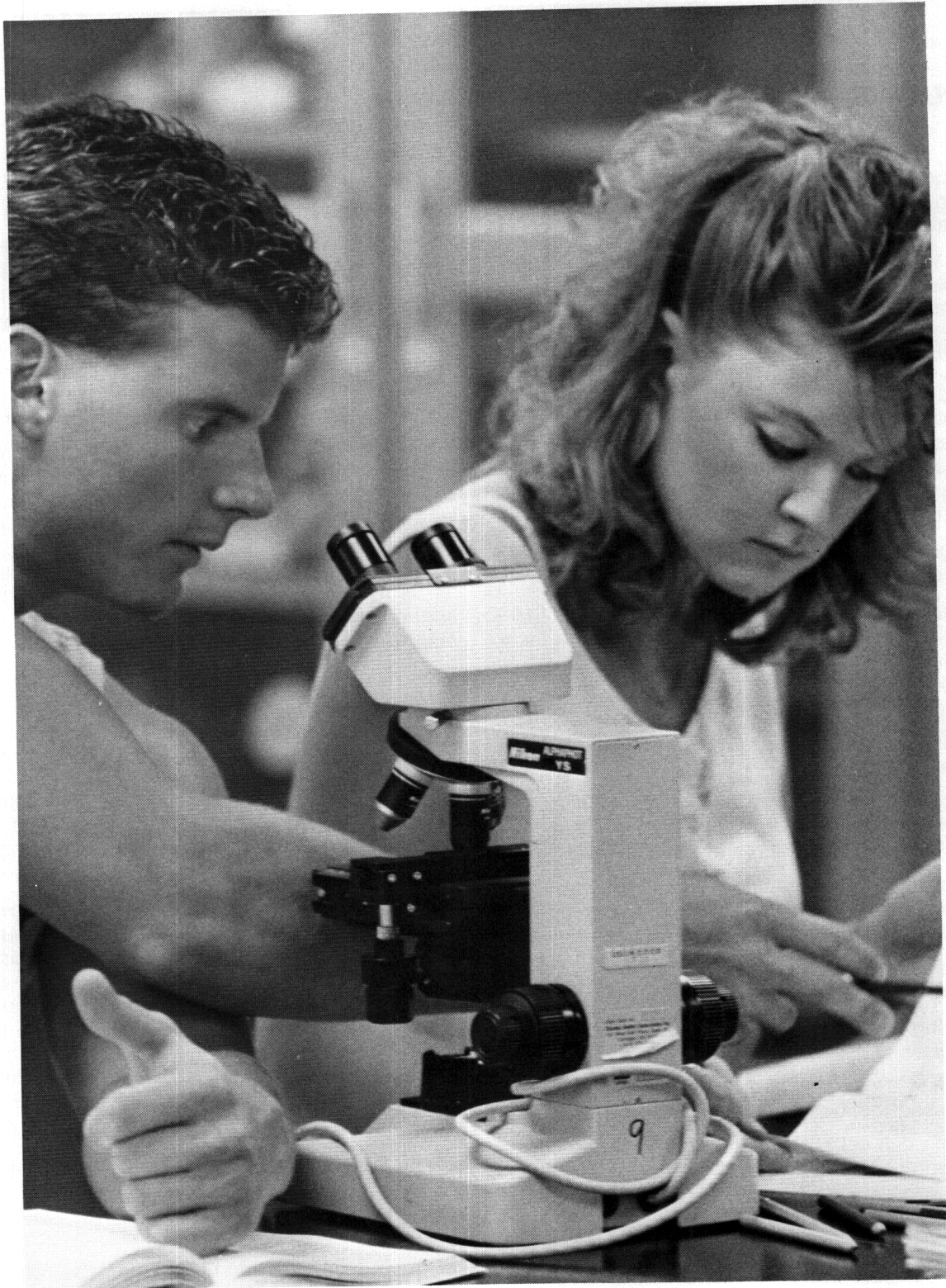
**The Office of Continuing Education** publishes a brochure each semester with approximately 150 courses which are divided into two main groupings: The Business Connection and The Community Connection. The Business Connection includes all courses pertaining to business and professional development and the Community Connection includes those courses pertaining to personal development and extra-curricular activities.

**The Office of Contract Training** responds immediately to the current needs of business and industry by delivering job-specific customized in-house training. This may mean entry-level or a “quick start” training of employees of new and expanding business and industry, re-training of employees for new technological developments, or extension of technical assistance to business and industry in the essential managerial functions of planning, organizing, implementing, and controlling.

The Offices of Continuing Education and Contract Training may offer courses which award credit or CEUs (Continuing Education Units) depending upon the offering. CEUs are nationally recognized to record satisfactory completion of certain approved occupationally related programs. Certificates are awarded upon completion of the course. Courses are offered throughout the county at a variety of sites depending on the types of courses and availability of facilities.

**The Office of Economic Development** initiates and participates in economic activities which contribute to the growth and development of county-wide business and industry. Examples are: establishing linkages with state and local agencies to support the establishment of new and expanding business and industry; active participation and leadership roles in local economic/industrial development alliances; establishment of a small business assistance center; dissemination of information on and operation of state and federal programs which train or re-train targeted population groups such as The Older Worker Program, a self-directed jobs program for people 55 years of age and older who wish assistance in finding employment.

For more information on how “Enterprise” can be your connection to “lifelong learning,” please call (214) 548-6851 (Central Campus) or (214) 881-5851 (Spring Creek Campus).



# Degree Programs

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Collin County Community College offers courses and programs to suit the needs of individual students. Offerings include Associate of Arts and Associate of Science degree programs which provide a basis for satisfying general requirements for transfer to senior institutions. The College also offers an Associate of Applied Science degree program, which is designed to meet the demand for specialized skills in the job market and which may include courses that are transferable to baccalaureate degree programs. Certificate programs in preparation for re-entry or the upgrading of skills are also available in several areas. In addition, anyone may take courses without obtaining a degree.

Degree plans are available in the following areas:

## **Associate of Arts and Associate of Science Areas of Study**

Accounting  
Agriculture  
Art  
Biology  
Business Administration  
Chemistry  
Computer Science  
Criminal Justice  
Economics  
Education  
Electrical Engineering  
English  
Engineering  
Fire Science  
French  
Geography  
Government  
History  
Journalism  
Legal Assistant  
Mathematics  
Music  
Philosophy  
Photography  
Physical Education  
Physics  
Pre-Law  
Pre-Medical  
Pre-Dental  
Psychology  
Sociology  
Spanish  
Speech Communication  
Theatre

## **Associate of Applied Science Areas of Study**

Accounting  
Advertising Art  
Child Development  
Child Care  
Day Care Administrator  
Computer Information Systems  
Business Programming  
Microcomputer Applications  
Emergency Medical Technology  
Engineering Technology  
Software Development  
Drafting and Computer Aided Design  
Drafting and Computer Aided Design—  
Electronics Design Option  
Electronics  
Electronics Technology  
Fire Science  
Management  
Fashion Marketing  
Financial  
Management Development  
Small Business  
Nursing (ADN)  
Office Administration  
General  
Legal  
Medical  
Secretarial  
Word Processing  
Ornamental Horticulture  
and Landscape Technology  
Real Estate

## **Certificate Programs Areas of Study**

Advertising Art  
Management Development  
Office Administration  
Medical  
Office Support  
Word Processing

Students with academic deficiencies are encouraged to take developmental courses to correct the deficiencies before they enroll in college-level courses. Developmental courses do not satisfy any graduation requirements or transfer to four-year institutions.

Students should contact their academic advisors for further information.

# ASSOCIATE OF ARTS

## ASSOCIATE OF ARTS (AA) GENERAL STUDIES DEGREE REQUIREMENTS

COURSE	NUMBERS	CREDIT HOURS
English	151, 152	6
*English	200 Level	3
*Math	150 Level	3
*Computers	CPSC 150	3
Speech Communication	151	3
Government	251, 252	6
History	151, 152	6
*Lab Science	150 Level	6-8
Humanities	151	3
Behavioral Science/Humanities	150 Level	3
HPER	Activity Elective	2
GENERAL STUDIES CORE		44-46
ELECTIVES		14-16
TOTAL		60

\*Higher level English, math, science, and computer courses may be substituted.  
HPER activity requirements will be waived in lieu of active military duty or for medical reasons. Students must substitute elective credit for the waiver of HPER credit.

## ASSOCIATE OF ARTS

### SUGGESTED SEMESTER PLAN FOR 2 YEAR COMPLETION

#### SEMESTER I

ENGL 151 Composition/Rhetoric I  
MATH 150 Contemporary Mathematics  
HIST 151 U.S. History I  
Lab Science Sequence I-150 Level  
Elective

#### SEMESTER II

ENGL 152 Composition/Rhetoric II  
CPSC 150 Intro to Computers  
HIST 152 U.S. History II  
Elective  
Lab Science Sequence II-150 Level

#### SEMESTER III

SPCM 151 Fund of Speech/Comm  
GOVT 251 Government of the U.S.  
HPER Activity Elective  
HUM 151 Intro to Humanities  
Elective  
Elective

#### SEMESTER IV

GOVT 252 State and Local Government  
Behav. Science or Art/Humanities  
HPER Activity Elective  
ENGL 200 Level  
Elective

\*See the following pages for suggested electives in each Associate of Arts area of study.

# ASSOCIATE OF SCIENCE

## ASSOCIATE OF SCIENCE (AS) GENERAL STUDIES DEGREE REQUIREMENTS

<b>COURSE</b>	<b>NUMBERS</b>	<b>CREDIT HOURS</b>
English	151, 152	6
*Math	181, 182	6
*Computers	CPSC 150	3
Speech Communication	151	3
Government History	251, 252	6
History	151, 152	6
Lab Science	190 Level	6-8
Humanities	151	3
Behavioral Science/Humanities	150 Level	3
HPER	Activity Elective	2
GENERAL STUDIES CORE		44-46
ELECTIVES		14-16
TOTAL		60

HPER activity requirements will be waived in lieu of active military duty or for medical reasons. Students must substitute elective credit for the waiver of HPER credit.

## ASSOCIATE OF SCIENCE

### SUGGESTED SEMESTER PLAN FOR 2 YEAR COMPLETION

#### SEMESTER I

ENGL 151 Composition/Rhetoric I  
MATH 181 College Algebra  
HIST 151 U.S. History I  
Lab Science Sequence I-190 Level  
Elective

#### SEMESTER II

ENGL 152 Composition/Rhetoric II  
MATH 182 Trigonometry  
Elective  
HIST 152 U.S. History II  
Lab Science Sequence II-190 Level

#### SEMESTER III

SPCM 151 Fund of Speech/Comm  
GOVT 251 Government of the U.S.  
HPER Activity Elective  
CPSC 150 Intro to Computers  
Elective

#### SEMESTER IV

GOVT 252 State and Local Government  
Behav. Science or Art/Humanities  
HPER Activity Elective  
HUM 151 Intro to Humanities  
Elective

\*See the following pages for suggested electives in each Associate of Science area of study.

# ASSOCIATE OF ARTS

## SUGGESTED ELECTIVES FOR EMPHASIS IN:

### ACCOUNTING (14-16 credit hours)

ACCT 191	Principles of Accounting I .....	3
ACCT 192	Principles of Accounting II .....	3
ACCT 193	Managerial Accounting .....	3
ECON 291	Principles of Economics I .....	3
ECON 292	Principles of Economics II .....	3
MATH 152	Calculus for Business and Economics .....	3

(Math 151 recommended in General Studies Core)

### ART (14-16 credit hours)

ART 191	Design I .....	3
ART 192	Design II .....	3
ART 193	Drawing I .....	3
ART 194	Drawing II .....	3
ART 291	Painting I .....	3
ART 292	Painting II .....	3
ART 293	Watercolor I .....	3
ART 294	Watercolor II .....	3
ART 295	Art History I .....	3
ART 296	Art History II .....	3
ART 297	Life Drawing .....	3

### BUSINESS ADMINISTRATION (14-16 credit hours)

ECON 291	Principles of Economics I .....	3
ECON 292	Principles of Economics II .....	3
ACCT 191	Principles of Accounting I .....	3
ACCT 192	Principles of Accounting II .....	3
CIS 160	BASIC Programming .....	3
ENGL 252	Forms of Literature II .....	3
PSYC 151	Introduction to Psychology .....	3
MATH 152	Calculus for Business and Economics .....	3
MATH 153	Statistics .....	3

(Math 151 recommended in General Studies Core)

### CRIMINAL JUSTICE (14-16 credit hours)

CRJS 151	Crime in America .....	3
CRJS 152	Introduction to Criminal Justice .....	3
CRJS 153	Fundamentals of Criminal Law .....	3
CRJS 154	The Court and Criminal Procedure .....	3
BSAD 122	Principles of Management .....	3
PSYC 151	Introduction to Psychology .....	3
PSYC 253	Psychology of Personality .....	3
SOC 151	Introduction to Sociology .....	3
SOC 152	Social Problems .....	3
SOC 153	Human Sexuality .....	3
SOC 252	Social Psychology .....	3

### ECONOMICS (14-16 credit hours)

ECON 291	Principles of Economics I .....	3
ECON 292	Principles of Economics II .....	3
ACCT 191	Principles of Accounting I .....	3
ACCT 192	Principles of Accounting II .....	3
CIS 160	BASIC Programming .....	3
ENGL 252	Forms of Literature II .....	3
PSYC 151	Introduction to Psychology .....	3
MATH 152	Calculus for Business and Economics .....	3
MATH 153	Statistics .....	3

(Math 151 recommended in General Studies Core)

### EDUCATION (14-16 credit hours)

ENGL 200	Literature .....	3
	Foreign Language Sequence I .....	4
	Foreign Language Sequence II .....	4
GEOG 151	Physical Geography .....	3
PHIL 151	Introduction to Philosophy .....	3
PYSC	Any Psychology Course .....	3
SOC	Any Sociology Course .....	3
ECON 291	Principles of Economics I .....	3
ECON 292	Principles of Economics II .....	3
MUS 291	Music Literature .....	3

**ENGLISH**  
(14-16 credit hours)

ENGL Literature .....	3
Foreign Language Sequence I .....	4
Foreign Language Sequence II .....	4
ENGL 291 Technical Writing.....	3
HIST 251 Western Civilization I .....	3
HIST 252 Western Civilization II .....	3

**FIRE SCIENCE**  
(31 credit hours)

FISC 117 Fire Protection Systems.....	3
FISC 112 Fire Prevention .....	3
FISC 131 Building Codes & Construction.....	3
FISC 133 Fire Cause & Origin Determination.....	3
FISC 141 Fire Administration I.....	3
FISC 125 Chemistry of Hazardous Materials .....	3
FISC 148 Fire Fighting Tactics & Strategy .....	4
FISC 106 Fundamentals of Fire Protection .....	3
FISC 116 Fire Safety Education .....	3
FISC 121 Industrial Fire Protection.....	3
FISC 225 Chemistry of Hazardous Materials II .....	3
FISC 241 Fire Administration II .....	3

**FRENCH**  
(14-16 credit hours)

FREN 191 Beginning French I .....	4
FREN 192 Beginning French II .....	4
FREN 291 Intermediate French I .....	3
FREN 292 Intermediate French II .....	3
FREN 293 Conversational French I* .....	1
FREN 294 Conversational French II** .....	1

- \* Co-requisite of FREN 291  
\*\* Co-requisite of FREN 292

**GEOGRAPHY**  
(14-16 credit hours)

GEOG151 Physical Geography .....	3
GEOG152 Cultural Geography .....	3
ANTH 151 Cultural Anthropology .....	3
PSYC 151 Introduction to Psychology.....	3
HIST 251 Western Civilization I .....	3
HIST 252 Western Civilization II .....	3
Foreign Language Sequence I .....	4
Foreign Language Sequence II .....	4

**GOVERNMENT**  
(14-16 credit hours)

Foreign Language Sequence I.....	4
Foreign Language Sequence II .....	4
ENGL Literature .....	3
CRJS 152 Introduction to Criminal Justice.....	3
CPSC 190 Programming Concepts I .....	3
CPSC 191 Programming Concepts II .....	3
ECON291 Principles of Economics I.....	3
ECON292 Principles of Economics II .....	3
PHIL 152 Logic.....	3
PHIL 153 Ethics .....	3
SPCM 152 Public Speaking .....	3
SPCM 191 Argumentation and Debate .....	3
PSYC 151 Introduction to Psychology.....	3
SOC 151 Introduction to Sociology .....	3

**HISTORY**  
(14-16 credit hours)

HIST 251 Western Civ I.....	3
HIST 252 Western Civ II .....	3
HIST 253 Texas History.....	3
Foreign Language Sequence I .....	4
Foreign Language Sequence II .....	4
ENGL Literature .....	3
ECON291 Principles of Economics I.....	3
ECON292 Principles of Economics II .....	3
PHIL 151 Introduction to Philosophy .....	3
PHIL 152 Logic.....	3
PSYC 151 Introduction to Psychology.....	3
SOC 151 Introduction to Sociology .....	3

**JOURNALISM**  
(14-16 credit hours)

JOUR 151 Introduction to Mass Communication .....	3
JOUR 152 News Gathering and Writing I.....	3
JOUR 153 News Gathering and Writing II .....	3
JOUR 251 Survey of Broadcasting.....	3
JOUR 290 News Photography.....	3
ENGL 291 Technical Writing.....	3
SPCM 295 Radio and TV Announcing .....	3



40 Degree Programs

**LEGAL ASSISTANT  
(14-16 credit hours)**

OFAD 120	Beginning Typewriting .....	3
OFAD 121	Intermediate Typewriting .....	3
OFAD 223	Word Processing Concepts .....	3
OFAD 224	Word Processing Projects/Legal .....	3
OFAD 225	Machine Trans/Legal .....	3
LEGL 130	Law and Judicial Systems .....	3
LEGL 131	Civil Procedure .....	3
LEGL 135	Law Office Management .....	3
LEGL 236	Legal Research .....	3
ECON 291	Principles of Economics .....	3
CRJS 154	Courts & Criminal Procedure .....	3

**MUSIC  
(14-16 credit hours)**

MUS 151	Music Theory I .....	3
MUS 152	Aural Skills I .....	1
MUS 150	Chorus .....	1
MUS 160	Band .....	1
MUS 170	Ensemble .....	1
MUS 153	Music Theory II .....	3
MUS 154	Aural Skills II .....	1
MUS 251	Music Theory III .....	3
MUS 252	Aural Skills III .....	1
MUS 253	Music Theory IV .....	3
MUS 254	Aural Skills IV .....	1
MUS 291	Music Literature I .....	3
MUS 292	Music Literature II .....	3
MUS 191	Applied Music-Major .....	2
MUS 194	Applied Music-Major .....	2
MUS 293	Applied Music-Major .....	2
MUS 297	Applied Music-Major .....	2
FREN 191	Beginning French I .....	4

**PHILOSOPHY  
(14-16 credit hours)**

PHIL 151	Introduction to Philosophy .....	3
PHIL 152	Logic .....	3
PHIL 153	Ethics .....	3
PHIL 154	Comparative Religion .....	3
PSYC 151	Introduction to Psychology .....	3
HDEV 105	Personal Development .....	2
Foreign Language Sequence I .....		4
Foreign Language Sequence II .....		4

**PHOTOGRAPHY  
(14-16 credit hours)**

ART 190	Art Appreciation .....	3
ART 191	Design I .....	3
ART 193	Drawing I .....	3
ART 287	Photography I .....	3
ART 288	Photography II .....	3
JOUR 290	News Photography .....	3

**PRE-LAW  
(14-16 credit hours)**

PSYC 151	General Psychology .....	3
SOC 151	Introduction to Sociology .....	3
SPCM 152	Public Speaking .....	3
CRJS 152	Introduction to Crim. Justice .....	3
LEGL 130	Law and Judicial Systems .....	3
LEGL 236	Legal Research and Writing .....	3
GEOG 151	Physical Geography .....	3
PHIL 151	Introduction to Philosophy .....	3
BSAD 121	Introduction to Business .....	3
PHIL 152	Logic .....	3
PHIL 153	Ethics .....	3

**PSYCHOLOGY  
(14-16 credit hours)**

PSYC 151	Introduction to Psychology .....	3
PSYC 153	Human Sexuality .....	3
PSYC 251	Developmental Psychology .....	3
PSYC 252	Social Psychology .....	3
PSYC 253	Psychology of Personality .....	3
PSYC 297	Selected Topics in Psychology .....	3
SOC 151	Introduction to Sociology .....	3
SOC 152	Social Problems .....	3
SOC 251	Marriage and Family .....	3
SOC 297	Selected Topics in Sociology .....	3

**SOCIOLOGY  
(14-16 credit hours)**

SOC 151	Introduction to Sociology .....	3
SOC 152	Social Problems .....	3
SOC 153	Human Sexuality .....	3
SOC 251	Marriage and Family .....	3
SOC 252	Social Psychology .....	3
SOC 297	Selected Topics in Sociology .....	3
PSYC 151	Introduction to Psychology .....	3
PSYC 251	Developmental Psychology .....	3
PSYC 253	Psychology of Personality .....	3
PSYC 297	Selected Topics in Psychology .....	3

**SPANISH**  
(14-16 credit hours)

SPAN 191	Beginning Spanish I .....	4
SPAN 192	Beginning Spanish II .....	4
SPAN 291	Intermediate Spanish I .....	3
SPAN 292	Intermediate Spanish II .....	3
SPAN 293	Conversational Spanish I .....	1
SPAN 294	Conversational Spanish II .....	1

**SPEECH COMMUNICATION**  
(14-16 credit hours)

SPCM 152	Public Speaking .....	3
SPCM 191	Argumentation and Debate .....	3
SPCM 192	Forensic Workshop .....	2
SPCM 193	Sign Language I .....	3
SPCM 194	Sign Language II .....	3
SPCM 291	Oral Interpretation .....	3
SPCM 292	Language and Communication .....	3
SPCM 297	Selected Topics in Speech .....	3
	Communication .....	3
ANTH 151	Cultural Anthropology .....	3
ENGL 253	British Literature I .....	3
ENGL 254	British Literature II .....	3
ENGL 255	American Literature I .....	3
ENGL 256	American Literature II .....	3
PHIL 151	Introduction to Philosophy .....	3
PSYC 151	Introduction to Psychology .....	3
PSYC 252	Social Psychology .....	3
SOC 151	Introduction to Sociology .....	3

**THEATRE**  
(14-16 credit hours)

THEA 151	Introduction to the Theatre .....	3
THEA 191	Rehearsal and Performance .....	1
THEA 192	Voice and Diction .....	3
THEA 193	Acting I .....	3
THEA 194	Acting II .....	3
SPCM 291	Oral Interpretation .....	3
SPCM 295	Radio and TV Announcing .....	3

# ASSOCIATE OF SCIENCE

## SUGGESTED ELECTIVES FOR EMPHASIS IN:

### AGRICULTURE (14-16 credit hours)

CHEM 151	Introduction to Chemistry .....	4
AGRI 171	The Agriculture Industry .....	1
AGRI 173	General Horticulture .....	3
AGRI 175	Principles of Agricultural Economics .....	3
AGRI 179	Agronomy .....	4
AGRI 181	Agricultural Entomology .....	3
AGRI 183	Principles of Food Technology .....	3
AGRI 177	Introduction to Animal Science .....	3
ECON 291	Principles of Economics I .....	3
ECON 292	Principles of Economics II .....	3

### BIOLOGY (14-16 credit hours)

BIOL 291	Anatomy and Physiology I .....	4
BIOL 292	Anatomy and Physiology II .....	4
BIOL 293	Microbiology .....	4
CHEM 191	General Chemistry I .....	4
CHEM 192	General Chemistry II .....	4
CHEM 291	Organic Chemistry I .....	4
CHEM 292	Organic Chemistry II .....	4
MATH 153	Statistics .....	3

### CHEMISTRY (14-16 credit hours)

CHEM 291	Organic Chemistry I .....	4
CHEM 292	Organic Chemistry II .....	4
PHYS 291	College Physics I .....	4
PHYS 292	College Physics II .....	4
CPSC 190	Programming Concepts I .....	3
MATH 291	Calculus III .....	4
MATH 293	Differential Equations .....	3

### COMPUTER SCIENCE (14-16 credit hours)

ENGL 291	Technical Writing .....	3
MATH 290	Discrete Structures .....	3
MATH 292	Linear Algebra .....	3
CPSC 190	Programming Concepts I .....	3
CPSC 191	Programming Concepts II .....	3
CPSC 290	Assembly Language .....	3
ENGL	Literature .....	3
PHIL 152	Logic .....	3
CPSC 292	Scientific Programming .....	3
CPSC 294	Programming .....	3

### ENGINEERING (14-16 credit hours)

MATH 291	Calculus III .....	4
MATH 292	Linear Algebra .....	3
MATH 293	Differential Equations .....	3
CPSC 190	Programming Concepts I .....	3
ENGR 151	Engineering Graphics .....	3
ENGR 191	Engineering Mechanics I .....	3
ENGR 192	Engineering Mechanics II .....	3
ENGR 291	Materials and Processes .....	3
ENGR 292	Electrical Circuit Analysis .....	3
CHEM 191	General Chemistry I .....	4
CHEM 192	General Chemistry II .....	4
ENGL 291	Technical Writing .....	3

### MATH (14-16 credit hours)

ENGL 291	Technical Writing .....	3
MATH 291	Calculus III .....	4
MATH 292	Linear Algebra .....	3
MATH 293	Differential Equations .....	3
CPSC 190	Programming Concepts I .....	3
ENGL	Literature .....	3
PHIL 152	Logic .....	3

**PHYSICAL EDUCATION  
(14-16 credit hours)**

BIOL 291	Anatomy and Physiology I .....	4
BIOL 292	Anatomy and Physiology II.....	4
HPER 103	Personal Health.....	3
HPER 101	Introduction to Physical Education .....	3
PSYC 151	Introduction to Psychology .....	3
HPER	Any Physical Education Activity Course.....	1-3

**PHYSICS  
(14-16 credit hours)**

MATH 291	Calculus III.....	4
MATH 292	Linear Algebra .....	3
MATH 293	Differential Equations.....	3
CPSC 190	Programming Concepts I .....	3
CHEM191	General Chemistry I.....	4
CHEM192	General Chemistry II .....	4
PSCI 153	Elementary Astronomy.....	4

**PRE-MEDICAL/PRE-DENTAL  
(14-16 credit hours)**

CHEM191	General Chemistry I.....	4
CHEM192	General Chemistry II .....	4
CHEM291	Organic Chemistry I.....	4
CHEM292	Organic Chemistry II .....	4
BIOL 291	Anatomy and Physiology I .....	4
BIOL 292	Anatomy and Physiology II.....	4
BIOL 293	Microbiology .....	4
PHYS 291	College Physics I .....	4
PHYS 292	College Physics II .....	4

**NOTE:**

Higher level math and/or science is generally required for students seeking a Bachelor's of Science in the following areas:

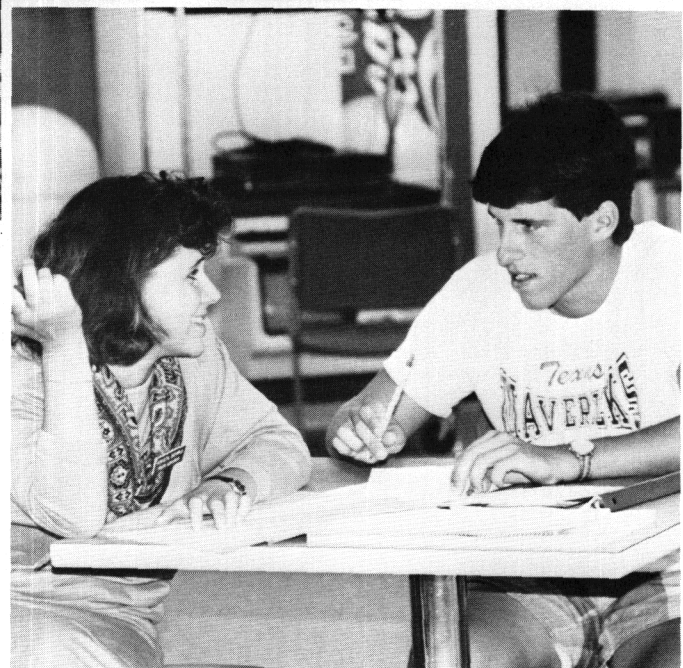
Biology  
Chemistry  
Computer Science  
Engineering

Mathematics  
Physical Education  
Physics  
Pre-medical/Pre-dental

# ASSOCIATE OF APPLIED SCIENCE

The **Associate of Applied Science** degree is designed primarily for students to acquire specific skills needed for entrance into the job market. CCCC works closely with area four-year colleges and universities to facilitate transferability of the Applied Science degree to baccalaureate degree programs. Students should confer with the specific four-year institution in advance to determine degree requirements.

Areas of study for an Associate of Applied Science degree include Accounting, Advertising Art, Child Development, Computer Information Systems, Engineering Technology, Emergency Medical Technology, and Fire Science. Management programs include Fashion Marketing, Financial, Management Development, and Small Business. Office Administration programs include General, Legal, Medical, Secretarial, Word Processing. Others include Nursing (ADN), Ornamental Horticulture and Landscape Technology, and Real Estate.



# ACCOUNTING

## A two-year Associate of Applied Science degree program.

61 credits required to graduate.

### ABOUT OUR PROGRAM

To meet the increasing demand for high paid accounting paraprofessionals, the Associate of Applied Science in Accounting has been developed to train students in all areas of accounting practice. Big 8 accounting firms, as well as smaller public accounting firms, have expressed a need for two-year graduates of accounting programs who are able to perform all the required skills used in public accounting, without having to hire four-year accounting degree graduates.

This creates an exciting opportunity for the student desiring a two-year Associate of Applied Science degree. With two years of college study, the student will be prepared for entrance to a highly professional accounting career.

Success in the complex and diversified world of accounting requires continuous training to implement new accounting principles and concepts. Graduates of this program will be ready to meet this challenge.

Students planning to transfer to a four-year institution should check with an academic advisor.

## Central Campus Spring Creek Campus

### SUGGESTED PROGRAM OF STUDY

#### First Semester

ENGL 151	Composition/Rhetoric I	.....3
CPSC 150	Introduction to Computers	.....3
ACCT 191	Prin of Accounting I	.....3
MATH 151	Pre-Calculus for Business and Economics	.....3
HPER	Physical Education Elective	.....1
Elective		.....3
		credit hours = 16

#### Second Semester

SPCM 151	Fund of Speech Communication	.....3
PSYC 121	Applied Psychology	.....3
ACCT 192	Prin of Accounting II	.....3
ACCT 291	Individual Income Taxation	.....3
CIS 120	Integrated Spreadsheet Applications	.....3
		credit hours = 15

#### Third Semester

HUM 151	Intro to Humanities	.....3
ACCT 193	Managerial Accounting	.....3
ACCT 194	Intermediate Accounting I	.....3
CIS 230	Database Applications	.....3
Elective		.....3
		credit hours = 15

#### Fourth Semester

ECON 291	Prin of Economics	.....3
ACCT 195	Intermediate Accounting II	.....3
ACCT 196	Auditing	.....3
ACCT 292	Corporate Income Taxation	.....3
Elective		.....3
		credit hours = 15

### CAREER OPPORTUNITIES

A wide range of career options await the graduates of this program. After completing the required course work and on the job training you can select from a diversified variety of career options which include:

- internal auditing
- external auditing
- tax return preparation
- compilation work
- financial statement preparation
- special accounting projects

# ADVERTISING ART

## A two-year Associate of Applied Science degree program

64 credits required to graduate.

### ABOUT OUR PROGRAM

The two-year Advertising Art program with the Associate of Applied Science degree will provide the individual with the necessary entry-level technical skills and professional expertise to meet the career requirements in advertising.

CCCC is committed to providing students with a program which will remain current in meeting the needs of changing technology, trends, and job opportunities. The instructors are actively involved in the field of advertising.

### Spring Creek Campus

#### SUGGESTED PROGRAM OF STUDY

##### First Semester

ADV 190	Survey of Advertising Art	.....3
ART 191	Design I	.....3
ART 193	Draw I	.....3
ENGL 151	Composition/Rhetoric I	.....3
HUM 151	Intro to the Humanities	.....3
		credit hours = 15

##### Second Semester

CPSC 150	Intro to Computers	.....3
ART 289	Visual Communications I	.....3
ART 290	Visual Communications II	.....3
SPCM 151	Fund of Speech Communication	.....3
**Elective		.....3
HPER	Physical Education Elective	.....1
		credit hours = 16

##### Third Semester

PSYC 121	Applied Psychology	.....3
CIS 262	Computer Graphics Systems	.....3
ADV 294	Professional Practices	.....3
ART 287	Photography I	.....3
MATH 150	Contemporary Mathematics	.....3
**Elective		.....3
		credit hours = 18

##### Fourth Semester

ECON 291	Prin of Economics I	.....3
ADV 295	Cooperative Education-Free Lance	.....3
ADV 296	Cooperative Education-Work Study	.....3
**Elective		.....3
**Elective		.....3
		credit hours = 15

Minimum Hours Required .....64  
 \*\*Suggested Electives.....Choose four electives from areas of concentration

### CAREER OPPORTUNITIES

The student may choose to concentrate in one of the following fields of advertising: Production Art, Illustration, Computer Graphics, and Photography. Jobs in these areas are varied and depend upon the business or agency speciality. Listed below are some of the career opportunities:

Paste-Up Artist  
 Designer  
 Graphic Artist  
 Technical Illustrator  
 Desktop Publisher  
 Computer Graphics Designer  
 Photographer  
 Fashion Illustrator

# ADVERTISING ART

## CERTIFICATE PROGRAMS

### COMPUTER GRAPHICS

#### First Semester (12 hours credit)

ENGL 151	Composition/Rhetoric I	.....3
ADV 190	Survey of Advertising Art	....3
ART 191	Design I	.....3
ART 193	Drawing I	.....3
		credit hours = 12

#### Second Semester (9 credit hours)

ART 289	Visual Communications I	.....3
ART 290	Visual Communications II	....3
CIS 262	Computer Graphics Systems	.....3
		credit hours = 9

#### Third Semester (9 credit hours)

CAD 220	Technical Illustration	.....3
CIS 280	Desktop Publishing	.....3
ADV 294	Professional Practices	.....3
		credit hours = 9

#### Fourth Semester (6 credit hours)

ADV 289	Advertising Computer Graphics	.....3
ADV 295	Co-Operative Education-Free Lance	.....3
<i>OR</i>		
ADV 296	Co-Operative Education-Work Study	.....3
		credit hours = 9
		total credit hours = 39

### ILLUSTRATION

#### First Semester (12 hours credit)

ENGL 151	Composition/Rhetoric I	.....3
ADV 190	Survey of Advertising Art	.....3
ART 191	Design I	.....3
ART 193	Drawing I	.....3
		credit hours = 12

#### Second Semester (9 hours credit)

ART 289	Visual Communications I	.....3
ART 290	Visual Communications II	....3
ADV 294	Professional Practices	.....3
		credit hours = 9

#### Third Semester (9 hours credit)

ART 194	Drawing II	.....3
ADV 292	Illustration	.....3
<i>*Elective</i>		.....3
		credit hours = 9

#### Fourth Semester (6 hours credit)

ADV 293	Adv. Illustration	.....3
ADV 295	Co-Operative Education-Free Lance	.....3
		credit hours = 6
		total credit hours = 36

#### \*SUGGESTED ELECTIVES

ART 297	Life Drawing	.....3
ART 291	Painting I	.....3
ART 293	Watercolor I	.....3
ART 287	Photography I	.....3
FMKT 126	Fashion Design	.....3
CIS 262	Computer Graphics Systems	.....3
CAD 220	Technical Illustration	.....3
ADV 289	Advertising Computer Graphics	.....3

### PHOTOGRAPHY

#### First Semester (12 hours credit)

ENGL 151	Composition/Rhetoric I	.....3
ART 191	Design I	.....3
ART 287	Photography I	.....3
ADV 190	Survey of Advertising Art	....3
		credit hours = 12

#### Second Semester (9 hours credit)

ART 192	Design II	.....3
ART 289	Visual Communications I	.....3
ADV 294	Professional Practices	.....3
		credit hours = 9

#### Third Semester (9 hours credit)

ART 288	Photography II	.....3
ART 295	Co-Operative Education-Free Lance	.....3
<i>*Elective</i>		.....3
		credit hours = 9

#### Fourth Semester (6 hours credit)

JOUR 290	News Photography	.....3
ADV 296	Co-Operative Education-Work Study	.....3
		credit hours = 6
		total credit hours = 36

#### \*SUGGESTED ELECTIVES

ADV 290	Graphic Design & Production	.....3
ADV 292	Illustration	.....3
ART 286	Printmaking I	.....3
CIS 262	Computer Graphics Systems	.....3

### PRODUCTION ART

#### First Semester (12 hours credit)

ENGL 151	Composition/Rhetoric I	.....3
ADV 190	Survey of Advertising Art	....3
ART 191	Design I	.....3
ART 193	Drawing I	.....3
		credit hours = 12

#### Second Semester (9 hours credit)

ART 289	Visual Communications I	.....3
ART 290	Visual Communications II	....3
CIS 262	Computer Graphics Systems	.....3
		credit hours = 9

#### Third Semester (9 hours credit)

ART 290	Graphic Design & Production	.....3
ADV 295	Co-Operative Education-Free Lance	.....3
ADV 294	Professional Practices	.....3
		credit hours = 9

#### Fourth Semester (6 hours credit)

ART 291	Adv. Graphic Design & Production	.....3
ADV 296	Co-Operative Education-Work Study	.....3
		credit hours = 6
		total credit hours = 36



# CHILD DEVELOPMENT

## CHILD CARE

**A two-year Associate of Applied Science degree program.**

63 credits

### ABOUT

The degree program in Child Development with a major in Child Care offers students an in-depth study of children from birth to twelve years of age. A developmental approach is emphasized which promotes optimal physical, social, emotional, and cognitive growth of children.

Supplementing the classroom learning experiences are laboratory activities which promote observational skills and multi-cultural, non-sexist approaches to learning. Lab time is also used to implement guidance techniques and parent involvement programs.

Students planning to transfer to a four-year institution should check with an academic advisor.

#### First Semester

ENGL 151	Composition/Rhetoric I	.....3
PSYC 151	Intro to Psychology	.....3
CPSC 150	Intro to Computers	.....3
CHDV 153	Intro to Early Programs and	3
CHDV 151	Early Childhood Development	3
		credit hours = 15

#### Second Semester

SPCM 151	Fund of Speech Communication	.....3
MATH 150	Contemporary Mathematics	.....3
CHDV 155	Material and Activity Development I	.....3
CHDV 152	Early Childhood Development (3-5 years)	.....3
CHDV 154	Nutrition, Health, and Safety	.....3
		credit hours = 16

#### Third Semester

ECON 121	Intro to Economics or	.....3
ECON 291	Prin of Economics	.....3
HPER	Physical Education Elective	.....1
CHDV 157	Practicum A	.....3
CHDV 156	Material and Activity Development II	.....4
CHDV 252	Child Abuse Prevention	.....3
SOC 151	Intro to Sociology	.....3
		credit hours = 17

#### Fourth Semester

CHDV 251	Child Guidance	.....3
CHDV 255	Internship or	.....3
CHDV 256	Cooperative Education	.....3
S	Family	.....3
H	anities	.....3
E		.....6
		credit hours = 15
		chosen from the

CHDV 159	Infant and Toddler Materials and Activities	.....3
CHDV 160	Child Development (5-12 yrs)	.....3
CHDV 161	Early Child Care	.....3
		caregiver

### CAREER OPPORTUNITIES

The degree program in Child Development Care major provides working with young children receive necessary training for employment in such areas as those listed below.

- day care centers
- preschool programs
- family day homes
- employer-sponsored child care
- church-sponsored child care
- hospital-sponsored child care
- before and after school programs
- community center programs
- parent and child study programs

# CHILD DEVELOPMENT

## DAY CARE ADMINISTRATOR

**A two-year Associate of Applied Science degree program.**

67 credits required to graduate.

### ABOUT OUR PROGRAM

The degree program in Child Development with a Day Care Administrator major offers the student an opportunity to study administrative procedures in a variety of child care facilities. Students in this program learn management skills which will allow them to provide affordable, quality care in safe, nurturing environments that promote optimal growth and development of children.

The classroom learning experiences are supplemented by laboratory activities. Students are trained in observation and evaluation procedures; practice the skills necessary for planning, organization, communication, and supervision; and learn to work in a positive manner with parents and community resources.

Students planning to transfer to a four-year institution should check with an academic advisor.

### Spring Creek Campus

#### SUGGESTED PROGRAM OF STUDY

##### First Semester

ENGL 151	Composition/Rhetoric I	.....3
PSYC 121	Applied Psychology or	
PSYC 151	Intro to Psychology	.....3
CPSC 150	Intro to Computers	.....3
CHDV 153	Intro to Early Childhood Programs and Services	.....3
CHDV 151	Early Childhood Development (0-3 yrs)	.....3
HPER	Physical Education Elective	.....1
		credit hours = 16

##### Second Semester

SPCM 151	Fund of Speech Communication	.....3
MATH 150	Contemporary Mathematics	.....3
CHDV 152	Early Childhood Development (3-5 yrs)	.....3
CHDV 154	Nutrition, Health and Safety	.....3
CHDV 157	Practicum A	.....3
		credit hours = 15

##### Third Semester

SOC 151	Intro to Sociology	.....3
ECON 121	Intro to Economics or	
ECON 291	Prin of Economics	.....3
CHDV 253	Intro to Administration of Child Care Programs	.....3
BSAD 222	Personnel Management or	
SBMT 121	Small Business Management	.....3
CHDV 251	Child Guidance	.....3
CHDV 252	Child Abuse Prevention	.....3
		credit hours = 18

##### Fourth Semester

CHDV 254	Advanced Administration of Child Care Programs	.....3
SOC 251	Marriage and Family	.....3
HUM 151	Intro to Humanities	.....3
	Electives	.....6
CHDV 255	Internship or	
CHDV 256	Cooperative Education	.....3
		credit hours = 18

Electives must be chosen from the following:

CHDV 155	Materials and Activities Development I
CHDV 156	Materials and Activities Development II
CHDV 159	Infant and Toddler Materials and Activities
CHDV 160	Child Development (5-12 yrs)
CHDV 161	Early Child Care Fundamentals

### CAREER OPPORTUNITIES

The Associate of Applied Science degree in Child Development with a Day Care Administrator major is designed to provide the necessary preparation to work as a day care director, director of children's programs or educational director. The skills acquired will be directly applicable in a variety of facilities including those listed below.

- day care centers
- preschool programs
- family day homes
- before and after school programs
- community center programs
- employer-sponsored child care
- church-sponsored child care
- hospital-sponsored child care
- parent and child study programs

# COMPUTER INFORMATION SYSTEMS

## BUSINESS PROGRAMMING

**A two-year Associate of Applied Science degree program.**

64 credits required to graduate.

### ABOUT OUR PROGRAM

The development and use of computers in business and industry have created a need for many data processing technicians who are proficient in business programming languages as well as computer operations. Many small and medium sized businesses spend a considerable amount of money seeking qualified computer specialists who can solve business problems.

The degree program in Computer Information Systems with an emphasis in Business Programming is for the person who wants to get the entry level skills and technical knowledge necessary for the demands of today's business and industry needs. Areas of study include:

Business Programming - use of COBOL in a business environment is emphasized

Financial Skills - accounting and economics courses are used to strengthen the background of the graduate

Management Skills - information systems management, systems analysis, database management systems, applied psychology, and technical writing are used to enhance effective management decisions

Technical Skills - operating systems, data structures, and statistics are presented to further technical competency

Students planning to transfer to a four-year institution should check with an academic advisor.

### Central Campus Spring Creek Campus

### SUGGESTED PROGRAM OF STUDY

#### First Semester

ENGL 151	Composition/Rhetoric I	.....3
HUM 151	Humanities	.....3
ECON 291	Economics I	.....3
MATH 151	Pre-Calculus for Business and Economics	.....3
CPSC 150	Intro to Computers	.....3
CIS 160	BASIC Programming	.....3
		credit hours = 18

#### Second Semester

SPCM 151	Fund of Speech Communication	.....3
MATH 152	Calculus for Business and Economics	.....3
ACCT 191	Prin of Accounting I	.....3
CIS 210	Data Structures	.....3
CIS 200	COBOL I	.....3
HPER	Physical Education	.....1
	Elective	.....1
		credit hours = 16

#### Third Semester

ACCT 192	Prin of Accounting II	.....3
CIS 250	COBOL II	.....3
CIS 190	Systems Analysis and Design	.....3
ENGL 291	Technical Writing	.....3
CIS 110	Operating Systems	.....3
		credit hours = 15

#### Fourth Semester

CIS 224	Information Systems Management	.....3
PSYC 121	Applied Psychology	.....3
CIS 275	RPG Programming	.....3
CIS 235	Database Design	.....3
	Electives from CIS, CPSC, or CSFT courses	.....3
		credit hours = 15

### CAREER OPPORTUNITIES

Students in the Business Programming option program will receive basic instruction and pre-employment training for positions requiring high degrees of skill and technical knowledge. The Computer Information Systems curriculum will extend or improve the existing occupational competence of employed persons. The Business Programming option readies students to seek one of many new job opportunities, a few of which are:

Business programmer - produce new business programs and modify existing ones

Computer operator - control and monitor mainframe computer functions

Database manager - design and manage business data systems

Production analyst - maintain computer security, computer libraries, and business forms and equipment

# COMPUTER INFORMATION SYSTEMS

## MICROCOMPUTER APPLICATIONS

A two-year Associate of Applied Science degree program.

64 credits required to graduate.

### ABOUT OUR PROGRAM

The development and use of computers in business and industry has created a need for many data processing technicians who are proficient in business programming languages as well as a variety of computer application packages. The United States Office of Technology Assessment estimates that by the year 2000, 80 percent of all jobs will be computer-related.

The Associate of Applied Science degree program in Computer Information Systems with an emphasis in Microcomputer Applications accentuates those entry level technical skills necessary for the demands of today's business and industry needs. These skills are:

Business applications - fluency in the use of Dbase, Lotus 123, Symphony, word processing, and desktop publishing software is emphasized

Technical skills - operating systems, data structures, networking, telecommunications, and microcomputer concepts courses are used to enhance technical competency

Management skills - systems analysis and design, applied psychology, and database design techniques are used to enhance effective management decisions

Students planning to transfer to a four-year institution should check with an academic advisor.

### Central Campus Spring Creek Campus

### SUGGESTED PROGRAM OF STUDY

#### First Semester

ENGL 151	Composition/Rhetoric I	.....3
OFAD 223	Word Processing	.....3
CIS 160	BASIC Programming	.....3
MATH 151	Pre-Calculus for Business and Economics	.....3
CPSC 150	Intro to Computers	.....3
CIS 128	Microcomputer Concepts	.....3
	credit hours =	18

#### Second Semester

ACCT 191	Prin of Accounting I	.....3
CIS 200	COBOL I	.....3
CIS 120	Integrated Spreadsheet	.....3
CIS 190	Systems Analysis and Design	.....3
HUM 151	Humanities	.....3
	credit hours =	15

#### Third Semester

SPCM 151	Fund of Speech Communication	.....3
CIS 230	Database Applications	.....3
CIS 210	Data Structures	.....3
CIS 270	Networking/ Telecommunications	.....3
CIS 110	Operating Systems	.....3
HPER	Physical Education Elective	.....1
	credit hours =	16

#### Fourth Semester

PSYC 121	Applied Psychology	.....3
CIS 280	Desktop Publishing	.....3
CIS 235	Database Design	.....3
ECON 291	Economics	.....3
	Elective from CIS, CPSC, or CSFT courses	.....3
	credit hours =	15

### CAREER OPPORTUNITIES

Students in the Microcomputer Applications option will prepare for entry into the workforce by experiencing practical applications and "real world" simulations using the latest in advanced software applications packages.

The degree in Computer Information Systems with a Microcomputer Applications option readies students for many new business and industry job opportunities, a few of which are:

Database: Dbase programmer - using the latest database applications programs to design and maintain business data

PC Support specialist - business problem solving using a variety of micro application packages

Micro programmer - design new programs and modify existing programs using microcomputer business languages

PC service representative - support networking and the micro telecommunications industry

# EMERGENCY MEDICAL TECHNOLOGY

**A two-year Associate of Applied Science degree program.**

*66 credits required to graduate.*

## ABOUT OUR PROGRAM

Our society has become so accustomed to the availability of Emergency Medical Services that we are often unaware of the impact those services have on our everyday lives. In the past, emergencies, whether minor injuries or life threatening situations, had to be handled by family members of friends without the benefit of education in emergency medical procedures. Advanced technology and education now provide a viable and reliable emergency medical services alternative.

CCCC's degree program in Emergency Medical Technology establishes an excellent foundation for work in the field of emergency medicine. After completion of the program, a student qualifies to test for certification as an EMT or EMT/Paramedic.

Logic, reason, curiosity, creativity, and a desire to aid in the care and treatment of people in need are requirements for someone desiring to achieve certification in Emergency Medical Technology.

Students planning to transfer to a four-year institution should check with an academic advisor.

## Central Campus

### SUGGESTED PROGRAM OF STUDY

#### First Semester

BIOL 291	Anatomy and Physiology I .....	4
EMTP 121	Intro to Emergency Care .....	3
ENGL 151	Composition/Rhetoric I.....	3
HLSC 132	Medical Terminology .....	3
HPER 140	Beginning Weight Training and Conditioning.....	1
CPSC 150	Intro to Computers .....	3
		credit hours = 17

#### Second Semester

BIOL 292	Anatomy and Physiology II.....	4
EMTP 141	Emergency Medical Procedures.....	5
GOVT 252	State and Local Government .....	3
HUM 151	Intro to Humanities .....	3
MATH 150	Contemporary Mathematics.....	3
		credit hours = 18

#### Third Semester

EMTP 211	Special Skills Training .....	5
EMTP 221	Paramedic Procedures I .....	3
EMTP 225	Pharmacology .....	4
PSYC 121	Applied Psychology .....	3
		credit hours = 15

#### Fourth Semester

ECON 121	Intro to Economics .....	3
EMTP 231	Paramedic Procedures II .....	7
SPCM 151	Fund of Speech Communication .....	3
Elective	.....	3
		credit hours = 16

## CAREER OPPORTUNITIES

Students certified as Emergency Medical Technicians may find employment opportunities with fire departments, private ambulance services, or certain hospital emergency rooms. Certified technicians may find rewarding careers such as those listed below.

- paramedics
- EMT's
- emergency room assistants
- firefighters
- private ambulance services
- lab technicians

# ENGINEERING TECHNOLOGY

## SOFTWARE DEVELOPMENT

**A two-year Associate of Applied  
Science degree program.**

*65 credits required to graduate.*

### **ABOUT OUR PROGRAM**

The development and implementation of computers, especially microprocessors, has created a demand for software application programs. There are career opportunities in both real time control programs and systems software development. This development involves not only developing programs but correcting and updating existing software.

This degree program requires extensive "hands-on" programming on both microcomputers and VAX minicomputers.

Students planning to transfer to a four-year institution should check with an academic advisor.

### **Central Campus**

#### **SUGGESTED PROGRAM OF STUDY**

##### **First Semester**

CPSC 190	Programming Concepts I .....	3
CPSC 191	Programming Concepts II .....	3
MATH 181	College Algebra .....	3
ENGL 151	Composition/Rhetoric I .....	3
ECON 121	Intro to Economics .....	3
		credit hours = 15

##### **Second Semester**

CSFT 121	Assembly Language Programming .....	4
MATH 182	Trigonometry .....	3
ELEC 131	Basic Electronics .....	3
SPCM 151	Fund of Speech Communication .....	3
HPER	Physical Education Elective .....	1
		credit hours = 14

##### **Summer Semester**

CSFT 225	ADA Programming .....	3
CPSC 294	C Programming .....	3
		credit hours = 6

##### **Third Semester**

HUM 151	Intro to Humanities .....	3
CPSC 292	Scientific Programming .....	3
CSFT 221	Software Engineering .....	3
ENGL 291	Technical Writing .....	3
CSFT	Elective .....	3
		credit hours = 15

##### **Fourth Semester**

CSFT 223	Real Time Programming .....	3
CSFT 224	Software Test Techniques .....	3
PSYC 121	Applied Psychology .....	3
CSFT 232	ADA Software Engineering .....	3
CSFT	Elective .....	3
		credit hours = 15

### **CAREER OPPORTUNITIES**

This program prepares entry level computer programmers for work in an applications environment. The student gains a background in basic programming concepts including software design and is exposed to present day computer languages including ADA language. Careers available for the graduate include:

- computer science technician
- computer programmer
- software development programmer
- numerical control programmer
- minicomputer programmer

# ENGINEERING TECHNOLOGY

## DRAFTING AND COMPUTER AIDED DESIGN

**A two-year Associate of Applied  
Science degree program.**

63 credits to graduate.

### ABOUT OUR PROGRAM

High-tech industries are constantly creating new career opportunities in exciting, highly specialized fields. The degree in Engineering Technology with a major in Drafting and Design provides both an educational foundation in computer-aided design and insight into current industry practices. Students in CCCC's intensive, computer-aided design (CAD) hands-on training program are taught the skills the designer, draftsman, architect, or engineer needs for successful CAD operations.

Students planning to transfer to a four-year institution should check with an academic advisor.

### Central Campus

#### SUGGESTED PROGRAM OF STUDY

##### First Semester

MATH 181	College Algebra	.....3
PHYS 121	UTC Physics I	.....4
CAD 151	Technical Graphics I	.....3
CIS 262	Computer Graphics Systems	.....3
		credit hours = 13

##### Second Semester

MATH 182	Trigonometry	.....3
PHYS 122	UTC Physics II	.....4
CAD 152	Technical Graphics II	.....3
CAD 123	Computer Aided Drafting	.....3
		credit hours = 13

##### Summer Semester

CAD 235	Manufacturing Processes	.....3
ENGL 151	Composition/Rhetoric I	.....3
		credit hours = 6

##### Third Semester

CAD 224	Advanced Comp Aided Drafting	.....3
PSYC 121	Applied Psychology	.....3
ELEC 131	Basics of Electronics	.....3
SPCM 151	Fund of Speech Communication	.....3
CAD 231	Descriptive Geometry	.....3
		credit hours = 15

##### Fourth Semester

CAD 221	Computer Aided Design	.....3
CAD 225	Electronic Drafting	.....3
CAD 222	Industrial Design	.....3
ECON 121	Intro to Economics	.....3
HUM 151	Intro to Humanities	.....3
HPER	Physical Education Elective	.....1
		credit hours = 16

### CAREER OPPORTUNITIES

Enjoy a profitable career in a modern business environment. Expanding job market possibilities related to drafting and design exist in the industries listed below:

- Manufacturing firms
- Research organizations
- Aircraft industry
- Governmental agencies
- Computer centers
- Architectural firms

# ENGINEERING TECHNOLOGY

## DRAFTING AND COMPUTER AIDED DESIGN— ELECTRONIC DESIGN OPTION

A two-year Associate of Applied Science degree program.

69 credits required to graduate.

### ABOUT OUR PROGRAM

Never before has the demand for printed circuit board designers been so great. The degree in Engineering Technology with a major in Drafting and Design—Electronic Design option provides both an educational foundation in computer-aided PCB design and insight into current industry practices. Students in CCCC's intensive computer-aided design (CAD) program are taught the skills the designer of printed circuit boards (PCB) needs to seek high-tech career opportunities in this rapidly growing and ever-changing field.

Students planning to transfer to a four-year institution should check with an academic advisor.

### Central Campus

#### SUGGESTED PROGRAM OF STUDY

##### First Semester

CAD 152	Technical Graphics II	.....3
CAD 231	Electronic PCB Drafting	.....3
CIS 262	Computer Graphics Systems	.....3
ELEC 121	Circuit Analysis I	.....4
MATH 181	College Algebra	.....3
HUM 151	Intro to Humanities	.....3
		credit hours = 19

##### Second Semester

CAD 245	Computer Aided PCB Design	.....3
CAD 704	Cooperative Work Experience or Elective	.....4
ELEC 122	Circuit Analysis II	.....4
MATH 182	Trigonometry	.....3
		credit hours = 14

##### Summer Semester

CAD 240	Printed Circuit Design	.....3
ELEC 125	Active Devices	.....4
		credit hours = 7

##### Third Semester

CAD 243	Advanced Printed Circuit Design	.....3
CAD 804	Cooperative Work Experience or Elective	.....4
ELEC 192	Digital Computer Principles	.....3
SPCM 151	Fund of Speech Communication	.....3
		credit hours = 13

##### Fourth Semester

CAD 246	Advanced CAD Electronics	.....3
CAD 255	Applications in PCB Design	.....3
ENGL 151	Composition/Rhetoric I	.....3
CAD 814	Cooperative Work Experience or Elective	.....4
PSYC 121	Applied Psychology	.....3
		credit hours = 16

### CAREER OPPORTUNITIES

Enjoy a profitable career in a modern business environment! Expanding job market possibilities related to PCB design exist in the industries listed below:

- aerospace
- telecommunications
- digital switching
- electronics
- computer centers
- research organizations
- aircraft industry
- biomedical



# ENGINEERING TECHNOLOGY

## ELECTRONICS

**A two-year Associate of Applied Science degree program.**

*69 credits required to graduate.*

### ABOUT OUR PROGRAM

The study of electronics engineering technology prepares an individual to develop, manufacture, and service electronic equipment—abilities greatly in demand in today's high tech society. The degree program in Engineering Technology with a major in Electronics is designed to meet the increasing need for electronic engineering technicians by offering a sound educational foundation and practical work experience.

Students planning to transfer to a four-year institution should check with an academic advisor.

### Central Campus

#### SUGGESTED PROGRAM OF STUDY

##### First Semester

PHYS 121	UTC Physics I	.....4
MATH 181	College Algebra	.....3
ELEC 121	Circuit Analysis I	.....4
ENGL 151	Composition/Rhetoric I	.....3
		credit hours = 14

##### Second Semester

PHYS 122	UTC Physics II	.....4
MATH 182	Trigonometry	.....3
ELEC 122	Circuit Analysis II	.....4
ELEC 125	Active Devices	.....4
		credit hours = 15

##### Summer Semester

ELEC 241	Computer Programming	.....3
ELEC 126	Digital Circuits	.....3
		credit hours = 6

##### Third Semester

CAD 151	Technical Graphics I	.....3
ELEC 225	Linear Integrated Circuits	.....4
ELEC 141	Fund of Computers	.....4
SPCM 151	Fund of Speech Communication	.....3
HUM 151	Intro to Humanities	.....3
		credit hours = 17

##### Fourth Semester

ECON 121	Intro to Economics	.....3
PSYC 121	Applied Psychology	.....3
ELEC 127	Computer Maintenance	.....3
ELEC 221	Microprocessor Interfacing	.....3
ELEC 231	Microwave Fundamentals or	
ELEC 232	Telecommunication & Telephony or	
QUAL 131	Quality Assurance	.....4
HPER	Physical Education Elective	.....1
		credit hours = 17

### CAREER OPPORTUNITIES

A key to the future lies in the ability to understand and manage technology. Numerous career opportunities are available in this broad field. Listed below are some of the specializations from which to choose.

- computers
- telecommunications
- navigation
- semiconductor manufacturing
- sonar and radar
- radio and television
- satellites
- military electronics
- PCB design

# ENGINEERING TECHNOLOGY

## ELECTRONICS TECHNOLOGY

**A two-year Associate of Applied Science degree program.**

*68 credits required to graduate.*

### ABOUT OUR PROGRAM

The student will be provided with courses of study that will provide entry level skills for industry or self-employment. Maintenance, repair, low-level calibration, and trouble-shooting techniques are emphasized to meet the needs of assembly technicians, test technicians, and repair technicians that are needed in a variety of areas of society.

Students planning to transfer to a four-year institution should check with an academic advisor.

### Central Campus

#### SUGGESTED PROGRAM OF STUDY

##### First Semester

CAD 151	Technical Graphics I	.....3
MATH 181	College Algebra	.....3
ECON 121	Intro to Economics	.....3
ENGL 151	Composition/Rhetoric I	.....3
ELEC 111	Fund of DC Circuits	.....4

credit hours = 16

##### Second Semester

CAD 231	Electronic Drafting	.....3
ELEC 241	Programming for Technicians	.....3
MATH 182	Trigonometry	.....3
PSYC 121	Psychology	.....3
ELEC 112	Fund of AC Circuits	.....4

credit hours = 16

##### Summer Semester

ELEC 125	Active Devices	.....4
ELEC 126	Digital Circuits	.....3

credit hours = 7

##### Third Semester

ELEC 141	Fund of Computers	.....4
ELEC 262	Power Supply Systems	.....4
ELEC 135	Electronic Communications	.....4
HUM 151	Intro to Humanities	.....3
HPER	Physical Education Elective	.....1

credit hours = 16

##### Fourth Semester

SPCM 151	Fund of Speech Communication	.....3
ELEC 127	Computer Maintenance	.....4
ELEC 221	Microprocessors	.....3
ENGL 291	Technical Writing	.....3

credit hours = 13

### CAREER OPPORTUNITIES

The ability to maintain, test, repair, and troubleshoot are skills which are currently in demand. Listed below are areas requiring these skills:

- avionics
- biomedical
- computers
- high-tech automotive electronics
- radio and television
- telecommunications

# FIRE SCIENCE

## A two-year Associate of Applied Science degree program.

66 credits required to graduate.

### ABOUT OUR PROGRAM

The firefighter with a well-balanced educational background will be better prepared to serve and protect the community. The Collin County Community College Associate of Applied Science degree in Fire Science is designed to give a broad perspective on various facets of providing fire protection. The program is applicable for students wishing to enter the fire service and for persons already employed as firefighters or in related career fields. Students will learn technical knowledge needed to combat the fire problems created by modern living.

CCCC's courses are scheduled to accommodate traditional firefighter work shifts. Firemen enrolled in fire science courses offered as a part of CCCC's fire science curriculum are exempt from payment of tuition and laboratory fees.

Fire Science is also offered as a Associate of Arts degree program. See pages 35 and 39.

Students planning to transfer to a four-year institution should check with an academic advisor.

### Central Campus

#### SUGGESTED PROGRAM OF STUDY

##### First Semester

ENGL 151	Composition/Rhetoric I	.....3
FISC 106	Fund of Fire Protection	.....3
FISC 112	Fire Prevention	.....3
HPER 140	Beginning Weight Training and Conditioning	.....1
MATH 150	Contemporary Mathematics	.....3
CPSC 150	Intro to Computers	.....3
		credit hours = 16

##### Second Semester

CHEM 151	Intro to Chemistry	.....4
FISC 131	Building Codes & Construction	.....3
FISC 148	Fire Fighting Tactics & Strategy	.....4
HUM 151	Intro to Humanities	.....3
SPCM 151	Fund of Speech Communication	.....3
		credit hours = 17

##### Third Semester

ECON 121	Intro to Economics	.....3
FISC 117	Fire Protection Systems	.....3
FISC 121	Industrial Fire Protection I	.....3
FISC 125	Chemistry of Hazardous Materials I	.....3
FISC 141	Fire Administration I	.....3
PSYC 121	Applied Psychology	.....3
		credit hours = 18

##### Fourth Semester

ENGL 291	Technical Writing	.....3
FISC 116	Fire Safety Education	.....3
FISC 133	Fire Cause & Origin Determination	.....3
GOVT 252	State & Local Government	.....3
Elective		.....3
		credit hours = 15

#### CAREER OPPORTUNITIES

Today's fire protection responsibilities provide new and exciting challenges in both the public and private sectors. Students enrolled in the Fire Science program prepare for occupations involving fire suppression, investigation, prevention and education. These challenging job opportunities include those listed below.

- fire department officer
- municipal emergency administrator
- safety technician
- hazardous material team member
- fire equipment sales & service representative
- industrial fire protection technician

# MANAGEMENT

## FASHION MARKETING

**A two-year Associate of Applied Science degree program.**

64 credits required to graduate.

### ABOUT OUR PROGRAM

The Collin County Community College Associate of Applied Science degree in Management with a major in Fashion Marketing incorporates both educational and management aspects of skills needed for a fashion merchandising career. CCCC is committed to providing students with excellent educational programs that meet the demands of today's fashion job market—and excellence in teaching that meets the needs of each student enrolled.

This program is designed to give the novice a thorough background in fashion marketing management and to provide an opportunity for those currently in the business to improve skills needed for success in the apparel industry.

Students planning to transfer to a four-year institution should check with an advisor.

### Spring Creek Campus

#### SUGGESTED PROGRAM OF STUDY

##### First Semester

ENGL 151	Composition/Rhetoric I	.....3
MATH 150	Sequence	.....3
FMKT 122	Fashion Merchandising	.....3
CPSC 150	Intro to Computers	.....3
BSAD 122	Prin of Management	.....3

credits hours = 15

##### Second Semester

SPCM 151	Fund of Speech Communication	.....3
ACCT 191	Prin of Accounting I	.....3
ECON 291	Prin of Economics I	.....3
FMKT 126	Fashion Design	.....3
FMKT 224	Textiles for Consumers	.....3
HPER	Physical Education Elective	.....1

credit hours = 16

##### Third Semester

BSAD 223	Prin of Retailing	.....3
BSAD 221	Prin of Marketing	.....3
FMKT 124	Fashion Sales & Marketing Tech	.....3
HUM 151	Intro to Humanities	.....3
FMKT 240	Cooperative Education or Elective	.....3

credit hours = 15

##### Fourth Semester

BSAD 226	Sales Management	.....3
PSYC 121	Applied Psychology	.....3
BSAD 222	Personnel Management	.....3
FMKT 220	Fashion Buying	.....3
FMKT 222	Advertising & Sales Promotion	.....3
FMKT 240	Cooperative Education	.....3

credit hours = 18

### CAREER OPPORTUNITIES

Positions with apparel makers fall into five general categories: production, administration, design, selling, and communication. Job duties can be varied and dependent upon a firm's particular job interpretation. Listed below are some of the possible career opportunities.

- plant manager
- costing engineer
- piece goods buyer
- order processor
- draper
- sketcher
- designer trainee
- pattern maker
- showroom salesperson
- buyer
- public relations
- fashion director

# MANAGEMENT

## FINANCIAL

### A two-year Associate of Applied Science degree program.

61 credits required to graduate.

### ABOUT OUR PROGRAM

Today's fast-paced, ever-changing world of finance is creating exciting new financial management career possibilities. The degree in Management with a Financial major is designed to allow students to take advantage of these opportunities.

Recent graduates, new corporate employees, banking veterans, and those seeking to change careers will find this intensive two-year program of benefit in preparation for a prominent future in business. The program focuses on increasing the student's career potential and value to financial institutions.

Success in the banking industry requires continuous training to implement new regulations and legislation and effectively deal with technological changes and increased competition. Students in this innovative program will prepare to meet the challenges of the ever-changing financial community.

Students planning to transfer to a four-year institution should check with an academic advisor.

### Central Campus Spring Creek Campus

### SUGGESTED PROGRAM OF STUDY

#### First Semester

ENGL 151	Composition/Rhetoric I	.....3
MATH 151	Pre-Calculus for Business and Economics	.....3
ACCT 191	Prin of Accounting I	.....3
BANK 131	Prin of Banking or	
CRDT 131	Prin of Credit Union Org	.....3
FIN 132	Savings and Time Deposits	.....3
		credit hours = 15

#### Second Semester

PSYC 121	Applied Psychology or	
PSYC 151	General Psychology	.....3
HUM 151	Intro to Humanities	.....3
ACCT 192	Prin of Accounting II	.....3
FIN 134	Consumer Lending	.....3
SPCM 151	Fund of Speech Communication	.....3
		credit hours = 15

#### Third Semester

ECON 291	Prin of Economics I	.....3
FIN 233	Credit Administration & Analysis of Financial Statements	.....3
BSAD 125	Supervisory Management	.....3
FIN 241	Cooperative Education or Elective	.....3
CPSC 150	Intro to Computers	.....3
		credit hours = 15

#### Fourth Semester

CIS 120	Integrated Spreadsheet Applications	.....3
FIN 235	Consumer Collections	.....3
FIN 234	Money and Finance	.....3
BANK 231	Federal Regulations of Banking or	
CRDT 231	Federal Regulations of Credit Union	.....3
FIN 242	Cooperative Education or Elective	.....3
HPER	Physical Education Elective	..1
		credit hours = 16

### CAREER OPTIONS

Enter the new era of finance! Managing money has become a big business and requires a wide variety of skills. The Financial program provides a strong management background and expertise sought by recruiters. Financial services industries offering career possibilities include:

- banks
- savings and loans
- investment banking firms
- credit unions

# MANAGEMENT

## MANAGEMENT DEVELOPMENT

**A two-year Associate of Applied Science degree program.**

61 credits required to graduate.

### ABOUT OUR PROGRAM

The world of management development is an exciting field that presents many unique opportunities. Every business, organization, and group needs good leaders to plan, organize, lead, and control the many activities that accompany a successful venture. Topics include basic management foundations and theories, human resource management, human relations training, sales and promotion, and capital acquisition skills.

The skills acquired in this program will enable the student to identify and resolve many problems that are encountered daily when working with individuals, groups, and organizations.

Students planning to transfer to a four-year institution should check with an academic advisor.

### Central Campus Spring Creek Campus

### SUGGESTED PROGRAM OF STUDY

#### First Semester

ENGL 151	Composition/Rhetoric I	.....3
HUM 151	Intro to Humanities	.....3
BSAD 122	Prin of Management	.....3
CPSC 150	Intro to Computers	.....3
BSAD 123	Business Law	.....3
HPER	Physical Education	
	Elective	.....1

credit hours = 16

#### Second Semester

BSAD 125	Supervisory Management	....3
SPCM 151	Fund of Speech Communication	.....3
MATH 150	Contemporary Mathematics or	
MATH 151	Pre-Calculus for Business and Economics	.....3
ACCT 191	Prin of Accounting I	.....3
PSYC 121	Applied Psychology or	
PSYC 151	General Psychology	.....3

credit hours = 15

#### Third Semester

ACCT 192	Prin of Accounting II	.....3
BSAD 221	Prin of Marketing	.....3
BSAD 222	Personnel Management	.....3
SBMT 221	Financing a Small Business	.....3
CIS 120	Integrated Spreadsheet Applications	.....3
Elective		.....3

credit hours = 18

#### Fourth Semester

ECON 291	Prin of Economics I or	
ECON 121	Intro to Economics	.....3
ENGL 291	Technical Writing	.....3
BSAD 228	Organization Behavior	.....3
BSAD 231	Labor Management Relations	.....3
Elective		.....3

credit hours = 15

### CAREER OPPORTUNITIES

Earning an Associate of Applied Science degree in Management Development can enable the student to work in many fields:

- manufacturing
- retail
- service
- restaurant
- hotel/motel
- general office

Management is an element common to all organizations. Because of that, jobs will always be available in many fields, including government and public service.

## CERTIFICATE PROGRAM

The Business Management Certificate Program is a one-year curriculum designed to prepare individuals with basic management skills.

#### First Semester

BSAD 122	Prin of Management	.....3
BSAD 123	Business Law	.....3
BSAD 125	Supervisory Management	....3
BSAD 222	Personnel Management	.....3
ACCT 191	Prin of Accounting I	.....3

credit hours = 15

#### Second Semester

BSAD 228	Organizational Behavior	....3
BSAD 231	Labor Management Relations	.....3
ACCT 192	Prin of Accounting II	.....3
CIS 120	Integrated Spreadsheet Applications	.....2
SBMT 221	Financing a Small Business	.....2

credit hours = 13

Total hours = 28

# MANAGEMENT

## SMALL BUSINESS

**A two-year Associate of Applied Science degree program.**

61 credits required to graduate.

### ABOUT OUR PROGRAM

The degree in Management with a Small Business major is designed to provide an understanding of how to operate a business. Topics include how to prepare a business plan, raise capital, plan cash flow requirements, create tax strategies, develop marketing programs, and establish rewarding employee benefit plans.

This program offers a unique opportunity for the student to generate ideas, identify and resolve business problems, and develop an entrepreneurial management style.

Students planning to transfer to a four-year institution should check with an academic advisor.

**Central Campus  
Spring Creek Campus**

### SUGGESTED PROGRAM OF STUDY

#### First Semester

ENGL 151	Composition/Rhetoric I	.....3
SBMT 121	Small Business Management	.....3
ACCT 191	Prin of Accounting I	.....3
PSYC 121	Applied Psychology	.....3
CPSC 150	Intro To Computers	.....3
HPER	Physical Education	
	Elective	.....1
		credit hours = 16

#### Second Semester

HUM 151	Intro to Humanities	.....3
SBMT 221	Financing a Small Business	.....3
BSAD 122	Prin of Management	.....3
MATH 151	Pre-Calculus for Business and Economics	.....3
ECON 291	Prin of Economics I	.....3
		credit hours = 15

#### Third Semester

SBMT 222	Small Business Operations	.....3
BSAD 221	Prin of Marketing	.....3
SPCM 151	Fund of Speech Communication	.....3
CIS 120	Integrated Spreadsheet Applications	.....3
Elective		.....3
		credit hours = 15

#### Fourth Semester

SBMT 223	Entrepreneurship	.....3
BSAD 123	Business Law	.....3
BSAD 222	Personnel Management	.....3
Electives		.....6
		credit hours = 15

### CAREER OPPORTUNITIES

The Associate of Applied Science degree in Management with a Small Business major provides the essential core of management practices and prepares the student for positions in:

- manufacturing
- construction
- retail
- services

The Federal government considers 97 percent of American businesses to be small businesses; one half of those employed in this country work in small business enterprises. Small businesses create over 80 percent of all new jobs in the United States!

# NURSING

## A two-year Associate of Applied Science degree program.

71 credits required to graduate.

### ABOUT OUR PROGRAM

This two-year Associate of Applied Science degree is offered in cooperation with Grayson County College and opens in the fall of 1988 with an exceptional curriculum. The GCC Nursing curriculum is approved by the Board of Nurse Examiners for the State of Texas and accredited by the National League for Nursing Council of Associate Degree Programs.

Collin County health care facilities enthusiastically support the ADN program. Studies indicate that from 250 to 300 nursing positions will be available in Collin County within the next five years.

CCCC is actively pursuing a direct transfer agreement with BSN and MSN programs. Students planning to transfer to a four-year institution should check with an academic advisor.

### Central Campus

#### SUGGESTED PROGRAM OF STUDY

##### Pre-entrance Requirements

MATH 151	Pre-Calculus for Business and Economics or	
MATH 181	College Algebra	.....3
BIOL 293	Microbiology	.....4
		credit hours = 7

##### First Semester

OREN 1110	Orientation	.....1
NURS 1710	Nursing I	.....7
BIOL 291	Anatomy and Physiology I	.....4
PSYC 151	Psychology	.....3
ENGL 151	Composition/Rhetoric I	.....3
		credit hours = 18

##### Second Semester

NURS 1820	Nursing II	.....8
BIOL 292	Anatomy and Physiology II	.....4
PSYC 251	Developmental Psychology	.....3
ENGL 152	Composition/Rhetoric II	.....3
		credit hours = 18

##### Summer Semester

NURS 2450	Nursing III	.....4
		credit hours = 4

##### Fourth Semester

NURS 2910	Nursing IV	.....9
SOCI 151	Intro to Sociology or	
SOCI 152	Social Problems	.....3
		credit hours = 12

##### Fifth Semester

NURS 2920	Nursing V	.....9
Elective		.....3
		credit hours = 12

### CAREER OPPORTUNITIES

Registered nurses can expect excellent job opportunities. Recent studies in Collin County emphasize the need for RNs in hospitals, clinics, and nursing homes. Positions available include:

- charge nurse
- staff nurse
- clinical nurse
- head nurse
- nursing instructor



# OFFICE ADMINISTRATION

## GENERAL

### A two-year Associate of Applied Science degree program.

62 credits required to graduate.

### ABOUT OUR PROGRAM

The degree in Office Administration—General is designed to incorporate both the technical and behavioral aspects of jobs in the automated office. Areas of study include:

- public relations—effective communication and the business image
- office skills—document production, reprographic systems, business telephone techniques, and electronic printing calculators
- proofreading/editing—language applications for business correspondence and documents
- computers and spreadsheet software—hands-on experience with integrated software such as Symphony
- word processing—hands-on experience using software such as MultiMate Advantage and WordPerfect
- records management—manual and electronic filing techniques and records administration

The General Office program was created jointly by business and education leaders from DSC Communications, Electronic Data Systems, Fisher Control International, Frito-Lay Corporation, InteCom Incorporated, JCPenney Financial Services, Texas Instruments, and area independent school districts.

Students planning to transfer to a four-year institution should check with an academic advisor.

### Central Campus Spring Creek Campus

### SUGGESTED PROGRAM OF STUDY

#### First Semester

ENGL 151	Composition/Rhetoric I	.....3
MATH 150	Contemporary Math or	
MATH 151	Pre-Calculus for Business and Economics	.....3
OFAD 121	Intermediate Typewriting	.....3
CPSC 150	Intro to Computers	.....3
BSAD 121	Intro to Business	.....3
HPER	Physical Education	
	Elective	.....1
		credit hours = 16

#### Second Semester

SPCM 151	Fund of Speech Communications	.....3
OFAD 122	Advanced Typewriting	.....3
OFAD 131	Records Management	.....2
OFAD 132	Proofreading/Editing	.....2
OFAD 134	Electronic Calculator	.....3
	Elective	.....3
		credit hours = 16

#### Third Semester

PSYC 121	Applied Psychology	.....3
HUM 151	Intro to Humanities	.....3
ECON 121	Intro to Economics	.....3
ACCT 131	Elementary Accounting	.....3
OFAD 223	Word Processing I	.....3
		credit hours = 15

#### Fourth Semester

OFAD 130	Office Functions	.....3
CIS 120	Integrated Spreadsheet Applications	.....3
	Electives	.....9
		credit hours = 15

### CAREER OPPORTUNITIES

"Classifieds" for those with general office training would include the following listings:

- Human Resources Clerk—primary responsibilities include greeting and screening visitors, data input, and general office support.
- Receptionist/Typist—individuals for front desk positions to answer phones, type 65 wpm, and handle various other duties. Dictaphone experience helpful.
- CRT Operator—enter bills of lading by CRT, answer phones, process daily shipping reports and shipping labels
- Typist—entry-level position requiring accurate typing skills (50 wpm).
- Billing Clerk—detail-oriented person to process invoices, purchase orders and inventory records. Typing and 10-key skills required.

# OFFICE ADMINISTRATION

## LEGAL

**A two-year Associate of Applied Science degree program.**

60-64 credits required to graduate.

### ABOUT OUR PROGRAM

Due to the increasing number of lawsuits filed each year, attorneys are requiring more paraprofessional and clerical help than ever before. One attorney may employ a receptionist, a secretary, two or more word processors, an office manager/accountant, one or more legal assistants/paralegals, and a law clerk! More and more, the typical law office is placing heavy emphasis on word processing, computer usage, and electronic dictation. Lawyers are also looking for knowledge of substantive and procedural law when hiring new employees.

The degree in Office Administration Legal is designed for the student who wants to develop office skills and acquire general knowledge of law.

The student will develop skills needed in an automated law office. Entry-level staff, employees making the transition to automation, and those re-entering the legal environment will benefit from this program.

Areas of study include:

- legal terms and concepts
- law office management skills
- legal ethics
- legal research and writing
- substantive law
- word processing concepts
- legal word processing
- legal transcription

Students planning to transfer to a four-year institution should check with an academic advisor.

### Central Campus Spring Creek Campus

### SUGGESTED PROGRAM OF STUDY

#### First Semester

ENGL 151	Composition/Rhetoric I	.....3
MATH 150	Contemporary Mathematics	.....3
OFAD 121	Intermediate Typewriting	.....3
ACCT 191	Prin of Accounting I	.....3
LEGL 130	Law and Judicial Systems	.....3
		credit hours = 15

#### Second Semester

ENGL 152	Composition/Rhetoric II	.....3
ECON 121	Intro to Economics	.....3
OFAD 122	Advanced Typewriting/ Legal	.....3
LEGL 131	Civil Procedure or	
CRJS 154	Courts and Criminal Procedure	.....3
CPSC 150	Intro to Computers	.....3
		credit hours = 15

#### Third Semester

BEHAVIORAL SCIENCE (150 Level)		.....3
HUM 151	Intro to Humanities	.....3
OFAD 223	Word Processing I	.....3
OFAD 225	Machine Transcription/ Legal	.....3
LEGL 236	Legal Research	.....3
Elective		.....3
		credit hours = 16-18

#### Fourth Semester

HPER	Physical Education	
		Elective
		.....1
LEGL 135	Law Office Management	.....3
OFAD 224	Word Processing/Legal	.....3
SPCM 151	Fund of Speech Communication	.....3
Electives		.....3
		credit hours = 13

### CAREER OPPORTUNITIES

Career opportunities in the legal field include legal assistant, legal secretary, law office manager, law clerk, and attorney positions. Some of these careers require additional training and may require graduate or professional degrees. Prospective employers include:

- private law firms
- governmental agencies at county, state, and federal levels
- private industry such as banks, savings and loan associations, title companies and corporations
- transportation industry such as airlines, railroads, and rapid transit systems

# OFFICE ADMINISTRATION

## MEDICAL

**A two-year Associate of Applied Science degree program.**

*62 credits required to graduate.*

### ABOUT OUR PROGRAM

The degree in Office Administration-Medical is designed to develop specialized skills for medical office personnel. Areas of study include:

- administrative responsibilities—appointments, telephone procedures, records management
- medical terminology—general and specialized medical terms and abbreviations
- medical transcription—patient records and reports
- financial responsibilities—insurance claims, manual and automated accounting systems, fees, and payments
- computers and spreadsheet software—hands-on experience using integrated software such as Symphony
- word processing—hands-on experience using software such as MultiMate Advantage and WordPerfect

Students planning to transfer to a four-year institution should check with an academic advisor.

### Central Campus Spring Creek Campus

### SUGGESTED PROGRAM OF STUDY

#### First Semester

ENGL 151	Composition/Rhetoric I	.....3
MATH 150	Contemporary Mathematics or	
MATH 151	Pre-Calculus for Business and Economics	.....3
OFAD 121	Intermediate Typewriting	.....3
OFAD 223	Word Processing I	.....3
HLSC 132	Medical Terminology	.....3
HPER	Physical Education Elective	.....1
		credit hours = 16

#### Second Semester

SPCM 151	Fund of Speech Communication	.....3
CPSC 150	Intro to Computers	.....3
ECON 121	Intro to Economics	.....3
OFAD 122	Advanced Typewriting	.....3
OFAD 224	Word Processing II/Medical	.....3
		credit hours = 15

#### Third Semester

ACCT 131	Elementary Accounting	.....3
HUM 151	Intro to Humanities	.....3
OFAD 131	Records Management	.....2
OFAD 132	Proofreading/Editing	.....2
OFAD 225	Machine Transcription/Medical	.....3
Elective		.....3
		credit hours = 16

#### Fourth Semester

OFAD 237	Medical Office Procedures	.....3
PSYC 121	Applied Psychology	.....3
CIS 120	Integrated Spreadsheet Applications	.....3
Electives		.....6
		credit hours = 15

### CAREER OPPORTUNITIES

The skills and personal attributes of health care personnel are unique to the profession.

A medical secretary may work for a doctor in:

- the general practitioner's office
- a group practice
- the dental office
- hospitals and clinics

A person with medical secretarial training and skills is valued in other avenues of health care including:

- public health departments
- convalescent and nursing homes
- health insurance companies
- manufacturers and distributors of drugs, pharmaceutical products, surgical instruments, and hospital supplies
- medical laboratories

# OFFICE ADMINISTRATION

## SECRETARIAL

**A two-year Associate of Applied Science degree program.**

*63-65 credits required to graduate.*

### ABOUT OUR PROGRAM

At a time when jobs are hard to obtain, challenging secretarial openings are at an all-time high. The degree in Office Administration—Secretarial is designed to prepare the student for an automated office environment.

The secretarial program enables the student to master office skills and to experience state-of-the-art technology for the fast-changing business climate. Areas of study include:

- office management—handle administrative details, coordinate office procedures.
- document production—increase speed, accuracy, and production of business documents
- shorthand—record and transcribe dictation using electronic and word processing equipment
- computer applications—use software to do word processing and spreadsheets and to enter database information
- records management—develop filing practices that maintain efficient access to business records

Students planning to transfer to a four-year institution should check with an academic advisor.

### Central Campus Spring Creek Campus

### SUGGESTED PROGRAM OF STUDY

#### First Semester

ENGL 151	Composition/Rhetoric I	.....3
MATH 150	Contemporary Mathematics or	
MATH 151	Pre-Calculus for Business and Economics	.....3
OFAD 121	Intermediate Typewriting	.....3
OFAD 126	Beginning Shorthand	.....3
BSAD 121	Intro to Business	.....3
HPER	Physical Education Elective	.....1
		credit hours = 16

#### Second Semester

SPCM 151	Fund of Speech Communication	.....3
CPSC 150	Intro to Computers	.....3
PSYC 121	Applied Psychology	.....3
OFAD 122	Advanced Typewriting	.....3
OFAD 127	Intermediate Shorthand	.....3
OFAD 132	Proofreading/Editing	.....2
		credit hours = 17

#### Third Semester

HUM 151	Intro to Humanities	.....3
ACCT 131	Elementary Accounting	.....3
OFAD 128	Advanced Shorthand	.....3
OFAD 130	Office Functions	.....3
OFAD 223	Word Processing I	.....3
		credit hours = 15

#### Fourth Semester

ECON 121	Intro to Economics	.....3
OFAD 225	Machine Transcription	.....3
CIS 120	Integrated Spreadsheet Applications	.....3
Electives		.....6-8
		credit hours = 15-17

### CAREER OPPORTUNITIES

Recent surveys of Collin County businesses indicate secretarial office jobs will increase through the 1990s. The arrival of the information age has broadened the traditional roles of secretaries and enhanced their relationship with management.

Today's secretary is often considered an administrative assistant who complements the executive in making decisions, conducting research, and meeting the public. Shorthand skills continue to give secretaries an edge both in entry-level jobs and in opportunities for promotion.

# OFFICE ADMINISTRATION

## WORD PROCESSING

**A two-year Associate of Applied Science degree program.**

*62 credits required to graduate.*

### ABOUT OUR PROGRAM

Word Processing is revolutionizing business communications! Computers have changed the way office personnel do their jobs—the word processing service area requires a knowledge of equipment, software, and applications.

The degree program in Office Administration—Word Processing is designed to develop skills for the automated office. Skills include:

- production typing—increase speed, accuracy, and production of business documents
- information processing concepts—orientation to word processing/information systems
- word processing applications—in-depth hands-on experience using word processing software such as MultiMate Advantage and WordPerfect
- computers and spreadsheets—hands-on experience using integrated software such as Symphony
- machine transcription—development of production competency on electronic equipment and Dictaphone

Students planning to transfer to a four-year institution should check with an academic advisor.

### Central Campus Spring Creek Campus

### SUGGESTED PROGRAM OF STUDY

#### First Semester

ENGL 151	Composition/Rhetoric I	.....3
MATH 150	Contemporary Mathematics or	
MATH 151	Pre-Calculus for Business and Economics	.....3
OFAD 121	Intermediate Typewriting	.....3
CPSC 150	Intro to Computers	.....3
ECON 121	Intro to Economics	.....3
HPER	Physical Education Elective	.....1
		credit hours = 16

#### Second Semester

SPCM 151	Fund of Speech Communication	.....3
OFAD 122	Advanced Typewriting	.....3
OFAD 131	Records Management	.....2
OFAD 132	Proofreading/Editing	.....2
OFAD 135	Administrative Communications	.....3
OFAD 223	Word Processing I	.....3
		credit hours = 16

#### Third Semester

PSYC 121	Applied Psychology	.....3
OFAD 224	Word Processing II	.....3
OFAD 130	Office Functions	.....3
OFAD 136	Information Processing Concepts	.....3
Elective		.....3
		credit hours = 15

#### Fourth Semester

HUM 151	Intro to Humanities	.....3
OFAD 226	Word Processing III	.....3
OFAD 225	Machine Transcription	.....3
CIS 120	Integrated Spreadsheet Applications	.....3
Elective		.....3
		credit hours = 15

### CAREER OPPORTUNITIES

By continuing to develop technical, business, language, communication, and management skills, office workers can seek new opportunities and new kinds of jobs:

- word processing operator—produce documents using automated equipment
- word processing specialist—format, produce, and revise complicated documents
- word processing trainer—train new operators; instruct users in methods and procedures
- proofreader—read copy for text content, spelling, punctuation, grammar, and typographical errors
- word processing supervisor—manage the operation of a work center schedule and work flow

# OFFICE ADMINISTRATION

## CERTIFICATE PROGRAMS

### MEDICAL

The Medical Office Certificate Program is a one-year curriculum designed to prepare individuals for entry-level positions in a medical office or health care facility.

#### First Semester

HLSC 131	Medical Terminology	.....3
OFAD 121	Intermediate Typewriting	.....3
OFAD 223	Word Processing I	.....3
OFAD 131	Records Management	.....2
CPSC 150	Intro to Computers	.....3
		credit hours = 14

#### Second Semester

OFAD 122	Advanced Typewriting	.....3
OFAD 224	Word Processing II/Medical	.....3
OFAD 237	Medical Office Procedures	.....3
ACCT 131	Elementary Accounting	.....3
		credit hours = 12

#### Third Semester

OFAD 225	Machine Transcription/ Medical	.....3
OFAD 241	Cooperative Education	.....3
		credit hours = 6
		total credit hours = 32

All courses feed into the Associate of Applied Science degree without loss of credit.

### OFFICE SUPPORT

The Office Support Certificate Program is a one-year program designed to prepare individuals for entry-level general office clerical support positions.

#### First Semester

OFAD 121	Intermediate Typewriting	.....3
OFAD 131	Records Management	.....2
OFAD 132	Proofreading/Editing	.....2
OFAD 134	Electronic Calculator	.....3
CIS 120	Integrated Spreadsheet Applications	.....3
ACCT 131	Elementary Accounting	.....3
		credit hours = 16

#### Second Semester

OFAD 122	Advanced Typewriting	.....3
OFAD 130	Office Functions	.....3
OFAD 135	Administrative Communications	.....3
OFAD 223	Word Processing I	.....3
OFAD 136	Information Processing Concepts	.....3
		credit hours = 15
		total credit hours = 31

### WORD PROCESSING

The Word Processing Certificate program is a one-year program designed to prepare individuals for entry-level positions requiring extensive document preparation using microcomputer equipment and word processing software.

#### First Semester

OFAD 121	Intermediate Typewriting	.....3
OFAD 223	Word Processing I	.....3
OFAD 136	Information Processing Concepts	.....3
ENGL 151	Composition/Rhetoric I	.....3
CPSC 150	Intro to Computers	.....3
		credit hours = 15

#### Second Semester

OFAD 122	Advanced Typewriting	.....3
OFAD 224	Word Processing II	.....3
OFAD 131	Records Management	.....2
OFAD 132	Proofreading/Editing	.....2
CIS 120	Integrated Spreadsheet Applications	.....3
		credit hours = 3

#### Third Semester

OFAD 226	Word Processing III	.....3
		credit hours = 3
		total credit hours = 11

# ORNAMENTAL HORTICULTURE AND LANDSCAPE TECHNOLOGY

**A two-year Associate of Applied Science degree program.**

*65 credits required to graduate.*

## **ABOUT OUR PROGRAM**

Challenging careers for the 1990's and beyond may be found in landscaping! The degree program in Ornamental Horticulture and Landscape Technology is designed to prepare the student for immediate employment in the landscape and ornamental horticulture field. Students who are currently in the field can update their knowledge and skill in the areas of landscape installation, maintenance, and other horticultural specialties.

An excellent instructional staff, small class size, and laboratory experiences give Ornamental Horticulture and Landscape Technology students a personalized, high quality educational experience.

Students planning to transfer to a four-year institution should check with an academic advisor.

## **Spring Creek Campus**

### **SUGGESTED PROGRAM OF STUDY**

#### **First Semester**

AGRI 173	General Horticulture .....	3
BIOL 151	Intro to Biology .....	4
ENGL 151	Composition/Rhetoric .....	3
MATH 150	Contemporary Mathematics.....	3
OHLT 112	Plant Materials I .....	4
		credit hours = 17

#### **Second Semester**

CHEM 151	Intro to Chemistry .....	4
HUM 151	Intro to Humanities .....	3
OHLT 113	Plant Materials II .....	4
CPSC 150	Intro to Computers .....	3
Elective	.....	3
		credit hours = 16

#### **Third Semester**

ECON 121	Intro to Economics .....	3
OHLT 221	Soils, Soil Amendments, Fertilizers and Plants.....	3
SPCM 151	Fund of Speech Communication .....	3
HPER	Physical Education Elective .....	1
Electives.....		5
		credit hours = 15

#### **Fourth Semester**

SMBT 121	Small Business Management .....	3
PSYC 121	Applied Psychology .....	3
OHLT 220	Weeds, Plant Diseases, Insects and Integrated Pest Management.....	5
Elective.....		5
		credit hours = 16

## **CAREER OPPORTUNITIES**

The field of landscape and horticulture is changing at a tremendous rate. Public awareness of the value of landscapes and gardens and increasing technical sophistication is contributing to the need for trained people in this area. Some of the opportunities for employment are listed below.

- grounds supervision
- greenhouse construction and sales
- landscape installation and maintenance
- landscape supplies and plant sales
- plant propagation
- nursery ownership and management

# REAL ESTATE

**A two-year Associate of Applied Science degree program.**

60 credits required to graduate.

**ABOUT OUR PROGRAM**

Real Estate is a dynamic field in which highly motivated men and women can and do create their own success stories. The degree program in Real Estate is designed with flexibility to allow students to successfully achieve a goal, whether it be personal knowledge, receipt of a degree, transfer to a four-year institution, or real estate licensure.

Students will explore a variety of topics including:

- fundamentals and principles of real estate
- sources of financing
- state and federal influences on financing
- legal rights of owners, buyers, and brokers
- property appraisal
- contract negotiations
- closings

An excellent instructional staff and a cooperative education program with local brokers give real estate students at CCCC a personalized, high quality educational experience.

Students planning to transfer to a four-year institution should check with an academic advisor.

**Central Campus  
Spring Creek Campus**

**SUGGESTED PROGRAM  
OF STUDY**

**First Semester**

ENGL 151	Composition/Rhetoric I .....	3
MATH 150	Contemporary Mathematics or	
MATH 151	Pre-Calculus for Business and Economics .....	3
RLST 133	Real Estate Prin I or	
RLST 134	Real Estate Prin II .....	3
OFAD 133	Computer Keyboarding .....	2
HPER	Physical Education Elective .....	1 <sub>1</sub>
Electives.....		3
		credit hours = 15

**Second Semester**

ENGL 152	Composition/Rhetoric II .....	3
ECON 121	Intro to Economics .....	3
SPCM 151	Fund of Speech Communication .....	3
RLST 139	Real Estate Law - Contracts .....	.3
RLST 136	Real Estate Math.....	3
		credit hours = 15

**Third Semester**

PSYC 121	Applied Psychology .....	3
HUM 151	Intro to Humanities.....	3
BSAD 121	Intro to Business.....	3
RLST 138	Real Estate Sales & Marketing .....	3
RLST	Elective .....	3
		credit hours = 15

**Fourth Semester**

CPSC 150	Intro to Computers .....	3
RLST 235	Real Estate Finance .....	3
RLST	Elective .....	3
Electives	.....	6
		credit hours = 15

**CAREER OPPORTUNITIES**

The study of real estate can be the beginning of an interesting and profitable career. Real estate is a vast and complex industry and career options are numerous. Listed below are some of the possibilities.

- brokerage
- appraisal
- financing
- property development
- counseling
- education
- insurance





# Course Descriptions

## **ACCT 131 ELEMENTARY ACCOUNTING**

This course is designed for those persons who need to be familiar with the basic principles of accounting in order to manage the financial records of a business. It covers the recording and reporting of business transactions, including the accounting cycle, financial statements and payroll. Lab Required. 3 credit hours.

## **ACCT 191 PRINCIPLES OF ACCOUNTING I**

This course covers the concepts and applications of measuring and analyzing financial information for business entities. The topics to be included are the accounting cycle, current assets, long-term assets and the preparation of financial statements. Lab Required. 3 credit hours.

## **ACCT 192 PRINCIPLES OF ACCOUNTING II**

This course covers the concepts and applications of measuring and interpreting financial information for partnerships and corporations. Included in the course are managerial accounting topics such as cost data, budgeting, and financial report analysis for use by management and third parties. PREREQUISITE: ACCT 191. Lab Required. 3 credit hours.

## **ACCT 193 MANAGERIAL ACCOUNTING**

This course emphasizes the preparation and interpretation of accounting data used in management planning, decision-making, and administrative control. The subject matter includes product costing, budgeting, accounting controls, and analytical techniques. PREREQUISITE: ACCT 192. Lab Required. 3 credit hours.

## **ACCT 194 INTERMEDIATE ACCOUNTING I**

Continued study of financial accounting topics in greater depth than in principles of accounting. Includes a study of financial accounting functions and basic theory, current assets and current liabilities, and plant assets and long-term liabilities. Lab Required. 3 credit hours.

## **ACCT 195 INTERMEDIATE ACCOUNTING II**

A continuation of Intermediate Accounting I. Topics include stockholder's equity, dilutive securities and investments, issues related to income measurement, and preparation and analysis of financial statements. Lab Required. 3 credit hours.

## **ACCT 196 AUDITING**

An introduction to auditing theory and practice. Topics include an introduction to professionalism, the general technology of auditing, audit program applications, and reporting responsibilities. 3 credit hours.

## **ACCT 291 INDIVIDUAL INCOME TAXATION**

This course deals with the history and the structure of federal income tax legislation and law as it pertains to individuals. Emphasis will be placed on current tax laws, preparation of tax returns and/or specific tax problems. Lab Required. 3 credit hours.

## **ACCT 292 PARTNERSHIP AND CORPORATION TAXATION**

This course deals with the history and structure of federal income tax legislation as it pertains to partnerships and corporations. Emphasis is placed on current tax laws, tax return preparation and/or specific tax problems. PREREQUISITE: ACCT 291. Lab Required. 3 credit hours.

## **ACCT 293 COOPERATIVE EDUCATION**

A comprehensive treatment of career related activities encountered in the student's area of specialization. Under supervision of the college and the employer, the student combines classroom learning with work experience. PREREQUISITE: Consent of Instructor. 3 credit hours.

## **ACCT 295 ACCOUNTING ETHICS**

This course examines some of the trying problems and ethical dilemmas faced by those practicing accounting. It is designed to develop the qualities required of a professional accountant, regardless of the organization in which the accountant will be active. PREREQUISITE: Enrollment must be approved by instructor. 3 credit hours.

## **ADV 190 SURVEY OF ADVERTISING ART**

Introduction to advertising art including investigation into the various career opportunities and into the workings of an agency or in-house studio. Understanding of the relationship of art and visual communication and the psychology of effective advertising will be covered. 3 credit hours.

## **ADV 289 ADVERTISING COMPUTER GRAPHICS**

An exploration of computer graphics with applications in design, illustration, and other areas of advertising art. Current trends in computer graphics will be explored. Creative solutions will be stressed. PREREQUISITE: ART 289, ART 290, and CIS 262. Lab Required. 3 credit hours.

## **ADV 290 GRAPHIC DESIGN AND PRODUCTION**

Investigation of various graphic design problems with consideration of technical requirements and presentation techniques for camera-ready art. Current trends will be explored. Creative solutions will be stressed. PREREQUISITE: ART 289. Lab Required. 3 credit hours.

## **ADV 291 ADVANCED GRAPHIC DESIGN AND PRODUCTION**

Further investigation of various graphic design problems with consideration of technical requirements and presentation techniques for camera-ready art. Advanced development of individual portfolio work will be stressed. PREREQUISITE: ADV 290. Lab Required. 3 credit hours.

## **ADV 292 ILLUSTRATION**

Problems in advertising illustration with consideration of technical requirements and presentation techniques for camera-ready art. Current trends will be explored. Creative solutions will be stressed. PREREQUISITE: ART 290. Lab Required. 3 credit hours.

## **ADV 293 ADVANCED ILLUSTRATION**

Further development of problems in advertising illustration with consideration of technical requirements and presentation techniques for camera-ready art. Advanced development of individual portfolio work will be stressed. PREREQUISITE: ADV 292. Lab Required. 3 credit hours.

## **ADV 294 PROFESSIONAL PRACTICES**

An overview of professional practices required both in the workplace and as a free-lance artist. Networking, professional organizations, presentation skills, and job seeking techniques will be covered. PREREQUISITE: ART 289, or ART 290. 3 credit hours.

**ADV 295 COOPERATIVE EDUCATION (FREE LANCE)**

Advanced students from the areas of production art, illustration, computer graphics, and photography will work in teams to produce advertising and illustration solutions for clients both on and off campus. PREREQUISITE: Consent of Instructor. Lab Required. 3 credit hours.

**ADV 296 COOPERATIVE EDUCATION (WORK-STUDY)**

Students are placed in work-study positions in their areas of specialization. Under supervision of the instructor and the employer, the student combines classroom learning with work experience. PREREQUISITE: Consent of Instructor. 3 credit hours.

**AGRI 171 THE AGRICULTURE INDUSTRY**

An overview of agriculture: orientation, career guidance, and current trends. 1 credit hour.

**AGRI 173 GENERAL HORTICULTURE**

Structure, growth, and development of horticultural plants from a practical and scientific approach. Environmental effects, basic principles of propagation, greenhouse and outdoor production, nutrition, pruning, and chemical control of growth, pest control, and landscaping. Lab Required. 3 credit hours.

**AGRI 175 PRINCIPLES OF AGRICULTURAL ECONOMICS**

Fundamental economic principles and their applications to the problems of the industry of agriculture. 3 credit hours.

**AGRI 177 INTRODUCTION TO ANIMAL SCIENCE**

A survey of the principles of scientific animal production including anatomy and physiology, breeding and genetics, nutrition and feeding, production systems and marketing. Laboratory exercises will focus on application of these principles. Lab Required. 3 credit hours.

**AGRI 179 AGRONOMY**

An introduction to the economic importance of plants to man and society. Includes a study of cropping systems, nutrition, crop hazards, fertilizers, weeds, crop improvement, plant classification, structure and growth. Lab Required. 4 credit hours.

**AGRI 181 AGRICULTURAL ENTOMOLOGY**

A survey of insects of economic importance in agriculture and horticulture. Characteristics of common orders of insects and related arthropods including anatomy and physiology. Students will collect, identify, and display insects. Lab Required. 3 credit hours.

**AGRI 183 PRINCIPLES OF FOOD TECHNOLOGY**

Technological and scientific aspects of modern industrial food supply systems. Food classification, modern processing, and quality control. 3 credit hours.

**ANTH 151 CULTURAL ANTHROPOLOGY**

This course utilizes the comparative method to examine the concepts of culture and society. The social and cultural beliefs and practices of people of diverse ethnic backgrounds are investigated and compared. Lab Required. 3 credit hours.

**ART 189 SURVEY OF ADVERTISING ART**

This course is an introduction to advertising art including investigation into the various career options. Analysis of effective advertising will be stressed. 3 credit hours.

**ART 190 ART APPRECIATION**

An introduction to the visual arts, emphasizing the understanding and appreciation of art. 3 credit hours.

**ART 191 DESIGN I**

Introduction in two-dimensional visual organization dealing with basic elements and principles of design. Exploration in black and white, color, and a variety of media. The experience in this class will prepare the student for composition in painting, drawing, and other two-dimensional courses. Lab Required. 3 credit hours.

**ART 192 DESIGN II**

A continuation of Design I with emphasis on color exploration and theory and on solving the total compositional problems. Illustrated lectures on two- and three-dimensional design problems and the parallel of design elements in nature and in the abstract. PREREQUISITE: ART 191. Lab Required. 3 credit hours.

**ART 193 DRAWING I**

An introduction to drawing including space, form, line, contour, gesture, texture, value, and composition. The student will learn observational skills in order to render the subjects of still life, figure, perspective, and landscape more accurately. Emphasis will be placed in technique, imagination, and use of a variety of materials. Lab Required. 3 credit hours.

**ART 194 DRAWING II**

Continued study of space, form, line, contour, gesture, texture, value, and composition in still life, figure, perspective, and landscape. Use of color will be introduced in various media. Emphasis will be placed on mastering technique, imagination, development of a personal drawing style, and good use of composition. PREREQUISITE: ART 193. Lab Required. 3 credit hours.

**ART 195 PROBLEMS IN CONTEMPORARY ART**

An introduction to current community resources in art including talks by area artists and educators in the fields of fine art and advertising art and field trips to galleries, studios, and museums. This course may be taken for up to 3 credit hours. 1 credit hour.

**ART 280 COMPUTER GRAPHICS**

Use of the computer as a design and production tool in the field of advertising art. PREREQUISITE: ART 289. Lab Required. 3 credit hours.



**ART 281 SCULPTURE I**

A study of three-dimensional form, including basic methods of modeling, construction, and simple casting procedures. Lab Required. 3 credit hours.

**ART 282 SCULPTURE II**

Application of the principles of three-dimensional form with an emphasis in creative expression. PREREQUISITE: ART 281. Lab Required. 3 credit hours.

**ART 283 CERAMICS I**

An introduction to ceramic design, including hand building, potter's wheel, and glazing and firing techniques. Lab Required. 3 credit hours.

**ART 284 CERAMICS II**

Continuation of Ceramics I with further study in clay and glaze composition and kiln operation with an emphasis on creative expression. PREREQUISITE: ART 283. Lab Required. 3 credit hours.

**ART 285 PRINTMAKING I**

An introduction to the process of intaglio, relief, and silk-screen printing. PREREQUISITE: ART 193. Lab Required. 3 credit hours.

**ART 286 PRINTMAKING II**

A continuation of Printmaking I with an emphasis on creative expression and mixed media. PREREQUISITE: ART 285. Lab Required. 3 credit hours.

**ART 287 PHOTOGRAPHY I**

An introduction to photography including basic camera operations, photographic processes, techniques, materials, and equipment with an emphasis on design and visual imagination. Lab Required. 3 credit hours.

**ART 288 PHOTOGRAPHY II**

Continuation of Photography I with an emphasis on dark-room proficiency, color processes, creative use of materials, and individual expression. PREREQUISITE: ART 287. Lab Required. 3 credit hours.

**ART 289 VISUAL COMMUNICATIONS I**

An introduction to the field of advertising art including basic terminology, tools and media, typography, paste-up techniques, layout and design concepts, reproduction process, and problem solving. Lab Required. 3 credit hours.

**ART 290 VISUAL COMMUNICATIONS II**

An introduction to illustration for reproduction including techniques for wet and dry media with emphasis on problem solving. PREREQUISITE: ART 193. Lab Required. 3 credit hours.

**ART 291 PAINTING I**

Acrylics and oil. Introduction to painting including use of materials, techniques, color study, and composition. Various painting styles will be practiced. PREREQUISITE: ART 193. Lab Required. 3 credit hours.

**ART 292 PAINTING II**

Acrylics, oil, and other media. Intermediate level course designed to increase the student's ability to use various techniques, color, and composition. Realistic and abstract approaches to painting will be explored. Emphasis will be placed on design, imagination, personal expression, and painting style. PREREQUISITE: ART 291. Lab Required. 3 credit hours.

**ART 293 WATERCOLOR I**

An introduction to watercolor including instruction in the use of brushes, papers, materials, and various painting techniques on wet and dry paper. The student will gain experience in mixing colors, color methods, problem solving in the use of technique, and in skillful observation of composition and painting style. PREREQUISITE: ART 193. Lab Required. 3 credit hours.

**ART 294 WATERCOLOR II**

Intermediate level course designed to increase the student's ability to master technique to identify the different pigment properties of color and to determine their best use. Exploration of different tools, papers, materials, and techniques will be practiced. Emphasis is on composition, imagination, personal expression, and painting style. PREREQUISITE: ART 293. Lab Required. 3 credit hours.

**ART 295 ART HISTORY I**

This course surveys the history of art from prehistoric times to the Renaissance. Special consideration is given to the form and content of a work of art, as well as the social and cultural context in which the work is created. 3 credit hours.

**ART 296 ART HISTORY II**

This course surveys the history of art from the Baroque period to the present. Special consideration is given to the form and content of a work of art, as well as the social and cultural context in which the work is created. 3 credit hours.

**ART 297 LIFE DRAWING**

Drawing from the life model including instruction in anatomical and creative approaches to figure drawing. Emphasis is on personal expression and creativity. May be taken for up to six hours credit. Each semester of work is progressively more advanced than the previous semester. PREREQUISITE: ART 194. Lab Required. 3 credit hours.

**ART 298 FIBERS I**

Investigates the problems of two- and three-dimensional design with emphasis on individual expression and creativity based on off-loom weaving techniques. Basic hand spinning on a drop spindle and elementary dyeing processes explored. Lab Required. 3 credits hours.

**ART 299 FIBERS II**

An investigation of the creative and functional aspects of loom weaving; experience in the construction, warping, threading and manipulation of both standard and modern design techniques. Lab Required. 3 credit hours.

**BANK 131 PRINCIPLES OF BANKING**

This course presents the fundamentals of bank functions and operations in a descriptive fashion. Particular attention is given to the banking system funds flow, deposit and money creation, and intermediation. Bank documents, accounting records, and bookkeeping are also presented and discussed. Also covered are the interrelationships of banks with one another and with other financial institutions, and a brief history of banking. 3 credit hours.

**BANK 231 FEDERAL REGULATION OF BANKING**

This course is a comprehensive treatment of the bank audit function, its importance to regulatory authority, and the organization, functions, and operations of various federal regulatory agencies. Ongoing federal compliance will be covered. PREREQUISITE: BANK 131. 3 credit hours.

**BIOL 151 INTRODUCTION TO BIOLOGY I**

Combination of traditional and self-paced lecture and laboratory. Survey of biology including human anatomy and physiology, study of human infectious and functional disease, genetics, and development. The biology of plants and lower animals will be studied, as well as organisms in nature, their ecology, ecosystems, and evolution. The cellular and molecular basis of life will be emphasized. Students will meet one lecture hour per week and two lab hours per week. The two additional lecture hours per week are self-paced, open lab hours with flexible scheduling. Lab Required. 4 credit hours.

**BIOL 152 INTRODUCTION TO BIOLOGY II**

Continuation of Biology 151. Combination of self-paced and traditional lecture and laboratory. The biology of plants and lower animals will be studied, as well as organisms in nature, their ecology, ecosystems, and evolution. Current topics in biology and medicine will be discussed. Students will meet one lecture hour per week and two lab hours per week. The additional two lecture hours per week are self-paced, open lab hours with flexible scheduling. PREREQUISITE: BIOL 151. Lab Required. 4 credit hours.

**BIOL 191 GENERAL BIOLOGY I**

For science majors. Current knowledge in the fundamentals of biology. Will develop concepts in cellular structure and function from the molecular to the organism level with a study of human anatomy and physiology. General topics covered include basic biochemistry, metabolism, energetics, cell structure and function, plant structure and function, animal biology, and evolution. Laboratory includes dissection of mammal, study of tissue types, cellular structure and function, physiological chemistry, plant anatomy and physiology, and ecosystems. Lab Required. 4 credit hours.

**BIOL 192 GENERAL BIOLOGY II**

For science majors. Continuation of the study of biological systems including immunity, physical and chemical basis of heredity, reproduction, development, diversity, inter- and intra-species behavior of animals, as well as an extensive survey of the five kingdoms. The cellular and molecular basis of biology emphasized. Laboratory correlates with lecture topics. PREREQUISITE: BIOL 191. Lab Required. 4 credit hours.

**BIOL 251 HUMAN ANATOMY AND PHYSIOLOGY**

A one-semester course in the structure and function of the human body, for non-science majors. Discussion of the body systems, including neuroendocrine, integumentary, musculoskeletal, digestive, urinary, reproductive, and circulatory, will be accompanied by discussion of diseases of each system. Lab Required. PREREQUISITE: BIOL 151 or 191. 4 credit hours. 3 Lec, 3 Lab.

**BIOL 291 ANATOMY AND PHYSIOLOGY I**

A study of comparative structure and function of the mammalian system with emphasis on anatomy. Topics include cell structure and function, tissues, skin, skeletal, muscular, nervous, digestive, circulatory, excretory, and reproductive systems. The molecular aspects of cell and organism are stressed. Laboratory section includes dissection of a mammal, as well as study of models, slides, and charts correlating with lecture topics. PREREQUISITE: BIOL 192 or consent of coordinator. Lab Required. 4 credit hours.

**BIOL 292 ANATOMY AND PHYSIOLOGY II**

Continuation of the study of the structure and function of the mammalian system with emphasis on physiology. Topics include genetics, digestion, nutrition, metabolism, nervous muscular, respiratory systems, blood and cardiovascular system, endocrine system, lymphatic, urinary system, reproduction, and human development. Laboratory includes correlated physiological experiments, and continued mammalian dissection. PREREQUISITE: BIOL 291. Lab Required. 4 credit hours.

**BIOL 293 MICROBIOLOGY**

Principles of microbiology. Classification, cell structure, metabolism, and historical concepts of microorganisms including bacteria, viruses, fungi, protozoa, rickettsia. Infectious diseases and immunology will be emphasized. Practical microbiology will include diagnostic microbiology, water, food, sewage, soil, and industrial applications. Laboratory methods are stressed, and experimentation with pure culture of medical, environmental, and industrial importance are studied extensively. PREREQUISITE: BIOL 192, or BIOL 292, or CHEM 192. Lab Required. 4 credit hours.

**BIOL 294 GENETICS**

A study of the principles of classical and molecular genetics, and the function and transmission of hereditary material. Course content will include population genetics and genetic engineering, with special attention paid to human genetics and current research in genetics. PREREQUISITE: BIOL 152 or 192. Lab Required. 4 credit hours. 3 Lec, 3 Lab.

**BSAD 121 INTRODUCTION TO BUSINESS**

This course provides an overall picture of business operations in a capitalistic economy including ownership, management, marketing, finance, and legal and regulatory environment. The role of business in society is studied. 3 credit hours.

**BSAD 122 PRINCIPLES OF MANAGEMENT**

The process of management is examined. The functions of planning, organizing, leading, and controlling are covered. Emphasis is on management philosophy, decision making, policy formulation, communications and motivation. Lab Required. 3 credit hours.

**BSAD 123 BUSINESS LAW**

This course covers the general principles of the law of contracts, property, and torts. The historical and ethical background of the law and current legal principles are covered. 3 credit hours.

**BSAD 124 PERSONAL FINANCE**

Personal financial issues are covered. Topics include financial planning, insurance, budgeting, credit, home ownership, savings, and tax problems. Lab Required. 3 credit hours.

**BSAD 125 SUPERVISORY MANAGEMENT**

This course is designed to instill a balanced quantitative/qualitative (high-touch) approach to management. The theories of Taylor, Fayol, Maslow, Mayo, Herzberg, Likert, etc. are explored. The challenges and opportunities presented by accelerated technological change are discussed. Effective leadership skills (time management, stress management, negotiation, assertion, active listening, effective meeting leadership, effective business communications and technical writing, etc.) are demonstrated. The student is required to practice these leadership skills during labs. Lab Required. 3 credit hours.

**BSAD 221 PRINCIPLES OF MARKETING**

The scope and structure of marketing are examined. Marketing functions, consumer behavior, market research, sales forecasting, and relevant state and federal laws are analyzed. 3 credit hours.

**BSAD 222 PERSONNEL MANAGEMENT**

This course is the study of principles and procedures in the management of employees. Topics include selection, placement, compensation, working conditions, training, labor relations, and government regulations. PREREQUISITE: BSAD 121, BSAD 122, or SBMT 121. 3 credit hours.

**BSAD 223 PRINCIPLES OF RETAILING**

The operation of the retail system of distribution is examined. Topics include consumer demand, location and layout, credit practices, and computer use. 3 credit hours.

**BSAD 224 PRINCIPLES OF ADVERTISING**

This course introduces the principles, practices, and media of persuasive communication. Topics include buyer behavior, use of media, and methods of stimulating salespeople and retailers. Promotion programs are also covered. 3 credit hours.

**BSAD 225 INTERNATIONAL BUSINESS**

This course is an introduction to international trade. It provides an overview of managerial, financial, and marketing issues for the operation of small or large firms in or entering world trade. Problems of adaptation to different sociological, legal, political, and economic characteristics are emphasized. 3 credit hours.

**BSAD 226 SALES MANAGEMENT**

Study of the principles of the management of personal selling. Attention given to personal qualifications and training programs. Topics include buying motives, sales psychology, sales techniques, and management of sales personnel. Lab Required. 3 credit hours.

**BSAD 228 ORGANIZATION BEHAVIOR**

The human problems of administration in modern organizations are examined. The theory and methods of behavioral science as they relate to organizations are included. PREREQUISITE: BSAD 121, BSAD 122, OR SBMT 121. 3 credit hours.

**BSAD 231 LABOR MANAGEMENT RELATIONS**

Organized labor and management organizations are examined. Topics include labor union development, legislative acts, legal considerations, labor-management relationships, and collective bargaining. PREREQUISITE: BSAD 121, BSAD 122, OR SBMT 121. Lab Required. 3 credit hours.

**BSAD 240 COOPERATIVE EDUCATION I**

A comprehensive treatment of career related activities encountered in the student's area of specialization. Under supervision of the college and the employer, the student combines classroom learning with work experience. PREREQUISITE: Consent of Instructor. 3 credit hours.

**BSAD 241 COOPERATIVE EDUCATION II**

A comprehensive treatment of career related activities encountered in the student's area of specialization. Under supervision of the college and the employer, the student combines classroom learning with work experience. PREREQUISITE: Consent of Instructor. 3 credit hours.

**CAD 121**

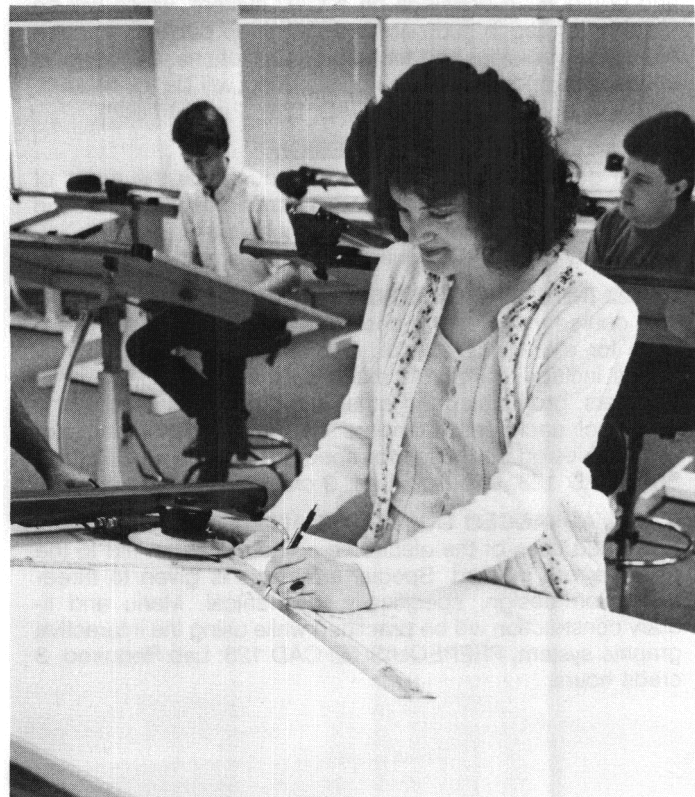
This course focuses on the commercial and military standards that establish the content and quality of engineering documentation, the type of drawings generated in industry, and the methods of assigning and controlling drawings. PREREQUISITE: ENGR 151 or Concurrent enrollment in ENGR 151. Lab Required. 3 credit hours.

**CAD 123 COMPUTER AIDED DRAFTING**

Capabilities and limitations of the electronic computer as an aid to the designer are studied. Drafting procedures using an interactive system with computer graphics are practiced. Forms and uses of computer aided products are viewed in perspective with the overall design and documentation process. PREREQUISITE: ENGR 151. Lab Required. 3 credit hours.

**CAD 151 TECHNICAL GRAPHICS I**

Use of instruments, applied geometry, engineering lettering, orthographic projections, dimensioning, pictorial drawing and sketching, sectional views and working drawings. PREREQUISITE: MATH 135 or concurrent enrollment in MATH 135. Lab Required. 3 credit hours.





**CAD 152 TECHNICAL GRAPHICS II**

A continuation of Technical Graphics 1. This course covers working detail drawings with proper dimensioning and tolerances. Standard symbols, stock shapes and descriptions are covered and applied to fabrication and forming drawings. Lab Required. 3 credit hours.

**CAD 220 TECHNICAL ILLUSTRATION**

Applications of computer graphics in the field of technical illustrations. Students will learn how to produce axonometric and perspective drawings on a CAD system, which will be suitable for use in such areas as desktop publishing, commercial advertising, and technical publications. Concepts in animation, rendering, and 3-D modeling will be introduced. PREREQUISITE: CIS 262 or CAD 123. 3 credit hours.

**CAD 221 COMPUTER AIDED DESIGN**

Actual design assignments are introduced in the areas of machines parts, metals, and metal forming. Included are the detailing and assembling of machines parts. PREREQUISITE: CAD 224. Lab Required. 3 credit hours.

**CAD 222 INDUSTRIAL DESIGN**

This course includes the design of metal and plastic packages for electronic, optical, and mechanical components. Topics include standard boxes, panels, mounts, brackets, fasteners, grommets, and other standard parts used in the design of packages. Standard catalogs and manuals are used to design packages for specific situation. PREREQUISITE: CAD 123. Lab Required. 3 credit hours.

**CAD 224 ADVANCED COMPUTER AIDED DRAFTING**

Advanced uses of the electronic computer as an aid to the designer are studied. Special emphasis is given to three-dimension design, specifically mechanical. Menu and library construction will be practiced while using the interactive graphic system. PREREQUISITE: CAD 123. Lab Required. 3 credit hours.

**225 ELECTRONIC DRAFTING**

This course focuses on drawings used in the electronics industry. Topics include block and logic diagrams, schematic diagrams, interconnecting wiring diagrams, printed wiring boards, integrated circuits, component packaging, and current industry practices. PREREQUISITE: CAD 123. Lab Required. 3 credit hours.

**CAD 231 ELECTRONIC PCB DRAFTING**

This course focuses on drawings used in the electronics industry. Topics include block and logic diagrams, schematic diagrams, interconnecting wire diagrams, taping printed circuit boards, integrated circuits, component packaging, and current practices. Lab Required. 3 credit hours.

**CAD 235 MANUFACTURING PROCESSES**

A study of the characteristics of industrial materials and the processes employed in their conversion. The areas covered are sheet metal, machined parts, and castings. PREREQUISITE: ENGR 151. Lab Required. 3 credit hours.

**CAD 240 PRINTED CIRCUIT DESIGN**

This course develops skills in the design of double-sided and multilayer printed circuit boards. Students design boards from schematics, parts lists, and manufacturing specifications. Some boards are designed for manual parts insertion and taped artworks. Others are designed for automatic parts insertion and digitized inputs for artworks. PREREQUISITE: CAD 231. Lab Required. 3 credit hours.

**CAD 243 ADVANCED PRINTED CIRCUIT BOARD DESIGN**

A continuation of CAD 245. Students will be designing power supply boards, shielding and denser PWB designs. Multilayer board design concepts will be introduced. PREREQUISITE: CAD 240, CAD 245. Lab Required. 3 credit hours.

**CAD 245 COMPUTER AIDED PCB DESIGN**

Introduction to CAD Systems course content to include the use of Auto CAD Application Programs. Design tools developed in 240 will be implemented on the CAD System. Begin designing low density double sided boards. PREREQUISITE: CAD 231. Lab Required. 3 credit hours.

**CAD 246 ADVANCED CAD ELECTRONICS**

A continuation of CAD 243. Board assignments will continue to include dense double-sided and multilayer design projects. Introduce and design a flex circuit project. Lab Required. 3 credit hours.

**CAD 252 SYSTEM ADMINISTRATION**

This course introduces the concepts and techniques of system efficiency and operation. Topics include menu development, files and backup, batch operations, interfacing, execution time checkout, and optimization. Lab Required. 4 credit hours.

**CAD 255 APPLICATIONS IN PCB DESIGN**

Advanced topics in PWB technology to include surface mount and microwave circuit design together with new advancements in technology. PREREQUISITE: CAD 243. Lab Required. 3 credit hours.

**CAD 704 COOPERATIVE WORK EXPERIENCE**

Students will be under the supervision of the College and the employer to provide on-the-job work experience. These internship courses are guided by learning objectives composed at the beginning of each semester by the instructor, employer, and the student to reflect the expected outcomes of that particular job. 4 credit hours.

**CAD 804 COOPERATIVE WORK EXPERIENCE**

Students will be under the supervision of the College and the employer to provide on-the-job work experience. These internship courses are guided by learning objectives composed at the beginning of each semester by the instructor, employer, and the student to reflect the expected outcomes of that particular job. 4 credit hours.

**CAD 814 COOPERATIVE WORK EXPERIENCE**

Students will be under the supervision of the College and the employer to provide on-the-job work experience. These internship courses are guided by learning objectives composed at the beginning of each semester by the instructor, employer, and the student to reflect the expected outcomes of that particular job. 4 credit hours.

**CHDV 151 EARLY CHILDHOOD DEVELOPMENT (0-3 yrs.)**

A comprehensive study of growth and development from conception through three years of age. Emphasis on cognitive, language, emotional, and social development. Lab Required. 3 credit hours.

**CHDV 152 EARLY CHILDHOOD DEVELOPMENT (3-5 yrs.)**

A comprehensive study of growth and development from three years through five years of age. Emphasis on cognitive, language, emotional, and social development. Lab Required. 3 credit hours.

**CHDV 153 INTRODUCTION TO EARLY CHILDHOOD PROGRAMS AND SERVICES**

A study of appropriate learning experiences for young children in a variety of child-care environments. Emphasis is on quality environments, learning activities, and effective teaching techniques. Lab Required. 3 credit hours.

**CHDV 154 NUTRITION, HEALTH, AND SAFETY**

Practical experience and information on the nutritional, health, and safety needs of the young child. A survey of community services for parents and teachers is provided. Students earn first aid and CPR certificates during this course. Lab Required. 3 credit hours.

**CHDV 155 MATERIAL AND ACTIVITY DEVELOPMENT I**

Language Arts, pre-reading, computers, and math: The techniques and materials for progress of each child in the language arts, reading and math concepts for appropriate stages of their cognitive development. Lab Required. 4 credit hours.

**CHDV 156 MATERIAL AND ACTIVITY DEVELOPMENT II**

Nature, world of people and the arts: The interrelationships among science, social science, and creativity in the arts is studied as it applies to the total development of the early child. Activities, content, methods, and materials are explored. Lab Required. 4 credit hours.

**CHDV 157 PRACTICUM A**

In-depth observation and participation experiences and activities with young children at appropriate child care facilities. Lab Required. 3 credit hours.

**CHDV 158 PRACTICUM B**

In-depth observation and participation experiences with young children at appropriate child care facilities. This course is designed for students who have had limited experience in a day care facility. PREREQUISITE: CHDV 157. Lab Required. 3 credit hours.

**CHDV 159 INFANT AND TODDLER MATERIALS AND ACTIVITIES DEVELOPMENT**

Appropriate experiences for infants and toddlers including learning activities, materials, and teaching techniques. Lab Required. 3 credit hours.

**CHDV 160 CHILD DEVELOPMENT (5-12 yrs.)**

A comprehensive study of growth and development from 5 through 12 years of age. Emphasis is on cognitive, language, emotional, and social development. Lab Required. 3 credit hours.

**CHDV 161 EARLY CHILD CARE FUNDAMENTALS**

Practical experience and information on infant care, etiquette, home economics, clothes care and selection, and other issues necessary to meet the needs of the young child. Lab Required. 3 credit hours.

**CHDV 251 CHILD GUIDANCE**

The study of effective methods of guiding young children with emphasis on developing a positive self-concept, recognizing individual difference, varied family situations, and various crises situations. This course includes observations and interpretations of case studies of young children. Lab Required. 3 credit hours.

**CHDV 252 CHILD ABUSE PREVENTION**

Causes and symptoms of abusive behavior are the focus of this course. Developing skills and competencies in working with the abused child and families to help alleviate abusive experiences will be emphasized. Lab Required. 3 credit hours.

**CHDV 253 INTRODUCTION TO ADMINISTRATION OF CHILD CARE PROGRAMS**

The management of a variety of preschool/day care centers is studied. Topics include food, health, referral sources, personnel practices, budgeting, record keeping, legal procedures, and use of the computer. Lab Required. 3 credit hours.



**CHDV 254 ADVANCED ADMINISTRATION OF CHILD CARE PROGRAMS**

Advanced administrative procedures are studied. Topics include financial management, personnel procedures, program evaluation, facility design, and planning. Lab Required. 3 credit hours.

**CHDV 255 INTERNSHIP**

Application and student teaching experience with the young child at appropriate child-care facilities. Lab Required. 3 credit hours.

**CHDV 256 COOPERATIVE EDUCATION**

A comprehensive treatment of career related activities encountered in the student's area of specialization. Under supervision of the College and the employer, the student combines classroom learning with work experience. PREREQUISITE: Consent of Instructor. 3 credit hours.

**CHDV 257 PARENTS AND THE CAREGIVER**

Relationships between caregivers and parents of young children are explored. The focus of the course will be on parental involvement, effective relationship building techniques, and communication skills. 3 credit hours.

**CHEM 151 INTRODUCTION TO CHEMISTRY**

A laboratory, lecture, and recitation program designed for non-science majors. Studies in this survey course include the metric system, scientific calculations, states of matter, chemical equations, atomic theory, bonding theory and introductory qualitative chemistry. One hour recitation session develops methods of problem solving. Laboratory exercises reinforce concepts presented in lecture. This course will not transfer as credit earned towards a science majors degree. PREREQUISITE: High school algebra or equivalent. Lab and Recitation Required. 4 credit hours.

**CHEM 152 INTRODUCTION TO CHEMISTRY II**

A laboratory, lecture, and recitation program for non-science majors. This survey course is a continuation of CHEM 151, and includes the study of acids and bases, solution chemistry, nuclear chemistry, kinetics, organic chemistry, and biochemistry. PREREQUISITE CHEM 151. Lab and Recitation Required. 4 credit hours.

**CHEM 191 GENERAL CHEMISTRY I**

A classical chemistry course designed for science majors, pre-medical, dental, or engineering students. Topics include stoichiometry, ideal gas behavior, atomic theory, periodic trends, VSEPR theory, thermochemistry, bonding theory, and states of matter. Laboratory exercises demonstrate concepts presented in class and develop basic lab skills. PREREQUISITE: 1 year of high school chemistry or CHEM 151; MATH 181. Lab and Recitation Required. 4 credit hours.

**CHEM 192 GENERAL CHEMISTRY II**

A continuation of Chemistry 191 that addresses topics in chemical equilibria, acid-base theory, solubility, electrochemistry, nuclear chemistry, organic chemistry, and biochemistry. Laboratory exercises demonstrate concepts presented in lecture and develop more advanced lab methods. PREREQUISITE: CHEM 191. Lab and Recitation Required. 4 credit hours.

**CHEM 291 ORGANIC CHEMISTRY I**

A study of carbon chemistry that considers covalent bonding, nomenclature, stereochemistry, structure and reactivity, reaction mechanisms, functional groups, and introductory synthesis. Laboratory experiments develop organic techniques and reinforce lecture material. PREREQUISITE: CHEM 192. Lab and Recitation Required. 4 credit hours.

**CHEM 292 ORGANIC CHEMISTRY II**

A continuation of Chemistry 291 that includes methods of structural analysis, advanced synthesis, methods of purification, biochemistry, and organometallics. Laboratory experiments emphasize techniques in synthesis, purification, and analyses, and reinforce lecture material. PREREQUISITE: CHEM 291. Lab and Recitation Required. 4 credit hours.

**CIS 110 COMPUTER OPERATING SYSTEMS**

This course will concentrate on the study of data files. The major topics to be included are: creating, editing, and managing data files; path directory structure; operating system commands; and job control language. Lab time will be spent working with current operating systems such as MS-DOS, OS/2, UNIX, and VAX-VMS. COREQUISITE: CPSC 150. Lab Required. 3 credit hours.

**CIS 120 INTEGRATED SPREADSHEET APPLICATIONS**

This course introduces business problems to define, analyze and solve. Using SYMPHONY by Lotus Development Corp., the student will be required to produce spreadsheet, database, word processing, and graphics documents. PREREQUISITE: CPSC 150, ACCT 191, or Consent of Instructor. Lab Required. 3 credit hours.

**CIS 128 MICROCOMPUTER CONCEPTS**

This course gives students a working knowledge of microcomputers with applications for personal, professional, and business uses. An introduction to disk operating systems, spreadsheets, database management, and word processing is given. Lab Required. 3 credit hours.

**CIS 160 BASIC PROGRAMMING**

This course is designed to provide a comprehensive understanding of fundamental programming logic. The student is required to write several business-oriented programs in BASIC. Systems analysis, structured design, flowcharting, and other fundamental terms and concepts of hardware and software are introduced. PREREQUISITE: CPSC 150. Lab Required. 3 credit hours.

**CIS 190 SYSTEMS ANALYSIS & DESIGN**

In this course, the student studies the techniques of documentation; information gathering; systems flowcharting; the design, classification, and coding of records; data controls; and file organization. The basic techniques of business systems analysis and design are applied to an ongoing case study. PREREQUISITES: CPSC 150, one programming language. Lab Required. 3 credit hours.

**CIS 200 COBOL I**

This course presents structured program design, development, testing, implementation, and documentation of common business applications using COBOL. Syntax, data, and file processing, batch, and interactive modes are covered. The student is required to write several COBOL programs. PREREQUISITE: CIS 160. Lab Required. 3 credit hours.

**CIS 210 DATA STRUCTURES FOR BUSINESS**

This course emphasizes the file structure to solve business problems. The student will use the language BASIC to develop methods of searching and sorting sequential and direct access file systems. Concepts of stacks, queues, the linked list, and data collision and resolution techniques will be applied to business data files. PREREQUISITES: CPSC 150, CIS 126. Lab Required. 3 credit hours.

**CIS 224 INFORMATION SYSTEMS MANAGEMENT**

This course is designed to solidify and update the student's quantitative and qualitative (high-tech, high-touch) managerial skills. Current theories, capabilities, applications, benefits, liabilities and economics of management information systems are presented. Computer-based decision support systems are emphasized. The student is required to lead and participate in groups to define, analyze, solve, and present management information systems case studies. **PREREQUISITE:** CIS 190, one programming language. Lab Required. 3 credit hours.

**CIS 230 DATABASE APPLICATIONS**

The concepts and techniques for solving business problems using database III+ are presented. The structure of the database, custom reports, labels, custom screens, number and text handling, and file management are used to produce several on-demand business documents from the database. **PREREQUISITE:** CPSC 150, One programming language. Lab Required. 3 credit hours.

**CIS 235 DATABASE DESIGN**

This course presents database design in detail using the hierarchical, network, and relational database models, with an emphasis on the relational database. Data manipulation within the relational model using Structured Query Language (SQL), Query By Example (QBE), the relational Algebra, and natural languages are explored. **PREREQUISITES:** CPSC 150, one programming language. Lab Required. 3 credit hours.

**CIS 240 COOPERATIVE EDUCATION**

This course is designed to help the student integrate classroom knowledge with work experience. The student, the student's supervisor, and the instructor coordinate a set of goals for the student to accomplish. Requires the student to attend a one hour weekly seminar. 3 credit hours.

**CIS 250 COBOL II**

This course is a continuation of CIS 200 with emphasis placed on advanced techniques, disk accessing and storage, direct and sequential access, and console input and output. Programs studied are complex and varied and are designed to employ all features available on the computer. **PREREQUISITE:** CIS 200. Lab Required. 3 credit hours.

**CIS 262 COMPUTER GRAPHICS SYSTEMS**

Basic computer systems used in drafting and design applications. Hardware and software operations including booting, displays, files, commands, defaults, input-output, disks, printers, plotters, precision, utilities, and data bases. 3 credit hours.

**CIS 270 NETWORKING & TELECOMMUNICATIONS**

This course reviews data, text, graphics, and voice communications technology and their applications. Included is vocabulary, configuration of local networks, modems, rates, and standards. An overview of protocols is given. **PREREQUISITE:** CPSC 150, CIS 210. Lab Required. 3 credit hours.

**CIS 275 RPG PROGRAMMING**

This course provides a comprehensive understanding of programming digital computers using Report Program Generator language. Proficiency is developed as students design, code, compile, and debug RPG programs. **PREREQUISITE:** CPSC 150. Lab Required. 3 credit hours.

**CIS 280 DESKTOP PUBLISHING**

This course uses the computer to produce printed communications using commercially available desktop publishing software. To demonstrate proficiency, the student will be required to produce several projects. **PREREQUISITE:** CIS 128, OFAD 124. Lab Required. 3 credit hours.

**COMM 150 SURVEY OF RECORDING TECHNIQUES**

An introduction to the concepts and techniques of audio recording including the nature of sound operation of recording equipment, session procedures, simultaneous recording, and multi-track recording. 3 credit hours.

**COMM 151 RADIO AND TV ANNOUNCING**

Principles and practice in radio and TV announcing. Includes study of voice (diction, pronunciation, and delivery) as it relates to mediated contexts, and experience in news announcing, interviewing, and commercial acting. **PREREQUISITE/COREQUISITE:** SPCM 152 or Consent of Instructor. 3 credit hours.

**CPSC 150 INTRODUCTION TO COMPUTERS**

An analysis of computer systems, their present uses and future roles in society, business, and public organizations. Topics emphasized include microcomputer terminology, computer algorithms, number systems, computer organization (both hardware and software), survey of software packages for personal computers, and elementary programming using the BASIC programming language. 3 credit hours.



**CPSC 190 PROGRAMMING CONCEPTS I**

A study of logical operation and organization of a computer, number systems, boolean algebra, problem solving techniques, algorithmic processes, and top-down design using the PASCAL language. COREQUISITE: MATH 181, CPSC 150; or consent of instructor. (Corequisite of CPSC 150 waived for CSFT students). Lab Required. 3 credit hours.

**CPSC 191 PROGRAMMING CONCEPTS II**

Continuation of Computer Science 190, including structured programming, design, data structures, documentation, and file processing. Emphasis on creating and modifying larger programs. PREREQUISITE: CPSC 190. Lab Required. 3 credit hours.

**CPSC 290 ASSEMBLY LANGUAGE**

Study of the architecture of the computer through the use of assembly language programming. Includes study of registers, instruction sets, addressing techniques, machine execution traces, table searching/sorting, file I/O, program linking, and macros. PREREQUISITE: CPSC 191. Lab Required. 3 credit hours.

**CPSC 292 SCIENTIFIC PROGRAMMING**

Introduction to numerical techniques with applications in science and engineering using FORTRAN. Emphasis on program design and documentation. Topics include sub-scripting, file processing, and subroutines. PREREQUISITE: MATH 182. Lab Required. 3 credit hours.

**CPSC 293 PL/1 PROGRAMMING**

An introduction to PL/1 programming with emphasis on the structured approach to program design using both mathematical and business applications. PREREQUISITE: CPSC 191. COREQUISITE: MATH 181; CPSC 150; or Consent of Instructor. Lab Required. 3 credit hours.

**CPSC 294 C PROGRAMMING**

Study of C programming language with emphasis on structured approach to program design and documentation. Topics include looping, arrays, functions, structures, and bit operations. Scientific, business, and computer arithmetic applications. PREREQUISITE: CPSC 290 or Consent of Instructor. Lab Required. 3 credit hours.

**CRDT 131 PRINCIPLES OF CREDIT UNION ORGANIZATION**

This course presents the historical and philosophical orientation of credit union functions, organization, and operation. 3 credit hours.

**CRDT 231 FEDERAL REGULATIONS OF CREDIT UNIONS**

This course is a comprehensive treatment of the credit union audit function, its importance to regulatory authority, and the organization, functions, and operations of various federal regulatory agencies. Ongoing federal compliance will be covered. PREREQUISITE: CRDT 131. 3 credit hours.

**CRJS 151 CRIME IN AMERICA**

American crime problems in historical perspective; social and public policy factors affecting crime; impact and crime trends; social characteristics of specific crimes; prevention of crime. 3 credit hours.

**CRJS 152 INTRODUCTION TO CRIMINAL JUSTICE**

Overview of criminal justice system from historical and philosophical perspectives: law enforcement, courts, and corrections. Emphasis on: definitions of crime and defenses, scope of impact of crime, Fourth and Fifth Amendments, trial process. 3 credit hours.

**CRJS 153 FUNDAMENTALS OF CRIMINAL LAW**

A study of the nature of criminal law, philosophical and historical development, major definitions and concepts, classification of crime, elements of crimes and penalties using Texas statutes as illustrations, criminal responsibility. 3 credit hours.

**CRJS 154 THE COURTS AND CRIMINAL PROCEDURE**

Study of processing criminal cases through the court system with emphasis on Texas Code of Criminal Procedure and rules of evidence. Also, right to counsel, pre-trial process, grand juries. 3 credit hours.

**CSFT 121 ASSEMBLY LANGUAGE PROGRAMMING**

Low level programming techniques using assembly language. Algorithm development, operation codes, addressing, pointers, looping, control structures, top-down design, structured programming, macros, subroutines, argument passing, debugging techniques, local and global variables, recursion, stacks, registers, timing, and number systems. PREREQUISITE: CPSC 191 or CSFT 131. Lab Required. 4 credit hours.

**CSFT 123 INTRODUCTION SYSTEM SOFTWARE ARCHITECTURE**

Introduction of system level operations, booting, compilers, translators, linkers, loaders, system control, and run-time software. Laboratory examples assigned to reinforce principles. PREREQUISITE: CSFT 121. Lab Required. 3 credit hours.

**CSFT 124 TECHNICAL GROUP PROBLEM SOLVING**

This course includes the techniques individuals can use, through appropriate effort, to increase creative potential of group problem solving. Topics covered include sensitivity to problems, self-confidence, fluency of ideas, flexibility of thinking, originality of ideas and the motivation to elaborate and follow through on developing and promoting your solution to a problem. 4 credit hours.

**CSFT 131 PASCAL PROGRAMMING**

Examination of the characteristics of high level languages with special emphasis on PASCAL. Laboratory exercises assigned to illustrate principles of program and data organization. Lab Required. 3 credit hours.

**CSFT 132 PROGRAMMING II**

Using a common block structured language to apply more advanced concepts of high level language programming and data structures/file organization. Special emphasis on program organization, documentation, control flow, and physical and logical files. Introduction to sort/merge techniques. Laboratory exercises assigned to reinforce principles. PREREQUISITE: CSFT 131. Lab Required. 3 credit hours.

**CSFT 213 CONCEPTS OF DATA STRUCTURES**

In-depth look at records, variant records, enumerated data types, pointers, records, list processing, trees, stacks, queues, abstract data types, searching, sorting, linked lists, graphs, traversals, and recursion. PREREQUISITE: CSFT 121. 4 credit hours.

**CSFT 221 SOFTWARE ENGINEERING**

The study of software design, implementation, and validation techniques through team projects. Structured analysis, programming style and project documentation are emphasized in software projects large enough to give a group meaningful work experience. PREREQUISITE: CSFT 121. Lab Required. 3 credit hours.

**CSFT 223 REAL TIME PROGRAMMING**

Analysis of distributed networks containing mini and micro computers. Study of data acquisition and digital control environments. PREREQUISITE: CSFT 132. Lab Required. 4 credit hours.

**CSFT 224 SOFTWARE TEST TECHNIQUES**

Introduction to software testing methodologies. Emphasis on program development techniques which aid testing. Introduction to proof of correctness. Laboratory exercises assigned to reinforce principles of program development. PREREQUISITE: CSFT 221. Lab Required. 4 credit hours.

**CSFT 225 ADA PROGRAMMING**

Syntax and semantics of ADA language, packages, I/O, encapsulation, tasking, blocks, exceptions, private and generic types. PREREQUISITE: CSFT 213. 3 credit hours.

**CSFT 231 INTRODUCTION TO COMPUTER GRAPHICS**

Concepts and principles, survey of preset display and input techniques, systems and applications. Study of basic concepts, mathematical and geometric principles, design and use of graphics software packages, design and implementation of an application using available hardware and software. PREREQUISITE: CSFT 121 and MATH 182. Lab Required. 3 credit hours.

**CSFT 232 ADVANCED SOFTWARE ENGINEERING**

Advanced study of large program design and documentation, group problems, software maintenance and reliability. PREREQUISITE: CSFT 221. Lab Required. 3 credit hours.

**CSFT 233 ADVANCED ASSEMBLY LANGUAGE PROGRAMMING**

Program design and practice with assembly languages, macro definitions, conditioned assembly, advanced I/O, floating point operations. PREREQUISITE: CSFT 121. Lab Required. 3 credit hours.

**CSFT 234 INTRO TO COMPUTER COMMUNICATION AND NETWORKING**

Introduction to data communication: asynchronous, synchronous, networking topologies and protocols, and current technologies. PREREQUISITE: CSFT 121. Lab Required. 3 credit hours.

**CSFT 235 LISP PROGRAMMING**

Syntax and semantics of LISP programming language, style, recursion, tail recursion, algorithm development, list processing techniques. PREREQUISITE: CSFT 121. Lab Required. 3 credit hours.

**CSFT 236 INTRO TO ARTIFICIAL INTELLIGENCE**

Introduction to concepts and ideas in artificial intelligence. Topics will include search techniques, knowledge representation, control strategies and advanced problem-solving architecture. PREREQUISITE: CSFT 235. Lab Required. 3 credit hours.

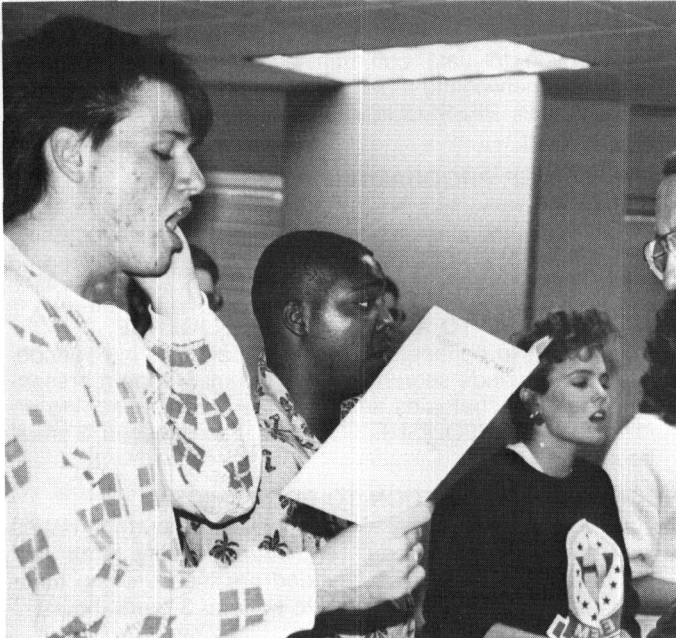
**ECON 121 INTRODUCTION TO ECONOMICS**

This course is a study of economics of current issues including antitrust, deregulation, social security, labor, and the banking system. Also included are the purpose, functions, and results of a capitalistic system. 3 credit hours.

**ECON 291 PRINCIPLES OF ECONOMICS I**

The principles of macroeconomics are studied. Topics include supply and demand economics organization, national income determination, money and banking, monetary and fiscal policy, economic fluctuations, and growth. 3 credit hours.





### **ECON 292 PRINCIPLES OF ECONOMICS II**

The principles of microeconomics are studied. Topics include theory of demand, supply, and price. Income distribution, theory of the firm, international economics, and contemporary economic problems are included. 3 credit hours.

### **ELEC 111 FUNDAMENTALS OF DC**

This course is presented as an overview of terminology, concepts, devices, and basic laws of direct current. Historical perspective on the development of statics and dynamics of electrical properties. Basic circuit laws and applications are provided in the course. An introduction to advanced laws is provided. Laboratory work will support material covered and enhance the students knowledge of circuit construction to develop a logical troubleshooting framework. Lab Required. 4 credit hours.

### **ELEC 112 FUNDAMENTALS OF AC**

This course provides an overview of the terminology, concepts, devices, and basic laws applied to alternating current. RC time constants, AC generation, parameter conversions, and basic laws are presented. The laboratory will provide enhancement to applying AC theory to practice. PREREQUISITE: ELEC 111 or equivalent course. Lab Required. 4 credit hours.

### **ELEC 121 CIRCUIT ANALYSIS I**

This course is an introduction to design principles of electrical/electronic direct current circuits. The course will cover division principles and various analysis techniques for analyzing different circuits. Node analysis, Superposition, KVL, KCL, Thevenin equivalent, Norton equivalent, and the Millman equivalent theorems are utilized. This course is an applied mathematics course and includes Cramer's rule. PREREQUISITE: ELEC 131; MATH 181. Lab Required. 4 credit hours.

### **ELEC 122 CIRCUIT ANALYSIS II**

This course is a continuation of circuit Analysis I. The information from the first semester course will be applied to

alternating current circuits. Additional topics covered for AC circuits are: the effects of frequency and impedance: resonant circuit characteristics, and filter networks: troubleshooting techniques; coupling networks, transformers. Utilization of standard phasor notation and application of fundamental laws and theorems for network analysis is covered. PREREQUISITE: ELEC 121, MATH 182 or Concurrent Enrollment in MATH 182. Lab Required. 4 credit hours.

### **ELEC 124 TEST EQUIPMENT AND ELECTRONIC MEASUREMENTS**

Operation and use of meters, counters, oscilloscopes, signal generators and test sets which are utilized in electronic circuit fault isolation and measurement. PREREQUISITE: ELEC 125. Lab Required. 3 credit hours.

### **ELEC 125 ACTIVE DEVICES**

Semiconductors (active devices) include composition, parametered, linear and non-linear characteristics, in circuit action, amplifiers, rectifiers, and switching. PREREQUISITE: ELEC 122 or Concurrent Enrollment in ELEC 122. Lab Required. 4 credit hours.

### **ELEC 126 DIGITAL CIRCUITS**

Basic digital logic, its symbology and notation in terms of digital integrated circuits (IC's), logic gates, flip-flops, decoders, numbering systems and Boolean algebra. PREREQUISITE: ELEC 125 or Concurrent Enrollment in ELEC 125. Lab Required. 3 credit hours.

### **ELEC 127 COMPUTER MAINTENANCE**

Emphasis is on the distinction between hardware and software failures in a computing system. This determination will be made in a lab setting using equipment with simulated or actual failures. Concentration is on the use of factory supplied and technician written diagnostic programs to identify and isolate a faulty device or subsystem. PREREQUISITE: ELEC 141. Lab Required. 3 credit hours.

### **ELEC 131 BASICS OF ELECTRONICS**

This introductory course provides a systems approach to electricity/electronics and concerns itself with vocabulary, definitions of electrical/electronic circuits, components, and systems. An introduction to printed circuit board design, preparation, processing will be covered, including hook-up wiring and interconnection techniques. Lab Required. 3 credit hours.

### **ELEC 135 ELECTRONIC COMMUNICATIONS**

This course will provide an overview of the systems and circuits involved in electronic communication. Topics covered are: radio, television, satellite, microwave, fiber optics, and lasers theory in communication. Integrated circuits will be emphasized. PREREQUISITE: ELEC 126. Lab Required. 4 credit hours.

### **ELEC 141 FUNDAMENTALS OF COMPUTERS**

A study of microcomputers; how they operate, how they are used, how they are programmed and how they relate to other equipment. The major topics covered are as follows: memories, microprocessor architecture, input/output operations, bus operations, control, execution cycles and bootstrap procedures. PREREQUISITE: ELEC 126. Lab Required. 4 credit hours.

### **ELEC 192 DIGITAL COMPUTER PRINCIPLES**

Digital principles as applied to micro computer systems. Logic design, computer structure and organization, number systems conversion, busing and interfacing. COREQUISITE: ELEC 250. Lab Required. 3 credit hours.

**ELEC 221 MICROPROCESSOR INTERFACING**

A course on microcomputer interfacing and the use of programmable peripheral devices. Selected programmable interface devices will be studied and the software and hardware interfaces developed. Experience in testing and troubleshooting interface circuits and use of specialized logic analyzer and emulation systems will be provided in a laboratory setting. PREREQUISITE: ELEC 141. Lab Required. 3 credit hours.

**ELEC 225 LINEAR INTEGRATED CIRCUITS**

The analysis and design of linear devices are studied, while emphasizing their circuit applications. Specifications and limits of voltage, current, and heat-dissipation are included. Circuits covered include amplifiers, regulators, oscillators, filters, timers, and signal processors. PREREQUISITE: ELEC 125. 4 credit hours.

**ELEC 231 MICROWAVE FUNDAMENTALS**

Introduction to microwave theory and applications, transmitter, and receiver. PREREQUISITE: ELEC 125. Lab Required. 4 credit hours.

**ELEC 232 TELECOMMUNICATION SIGNALING & TELEPHONY SWITCHING SYSTEMS**

Covers circuit and system application necessary to implement signaling protocols, conversion systems, formats, loop starts, E&M, DX (duplex), and looping systems, telephone set, public switched networks, local exchanges, networks, two and four wire systems, tip and ringing requirements, and digital transmission techniques. PREREQUISITE: ELEC 126. Lab Required. 4 credit hours.

**ELEC 241 COMPUTER PROGRAMMING**

Computer programming techniques using Fortran or BASIC to solve problems and demonstrate system operation. The language syntax, flow charting and coding with applications to technical projects is emphasized. Lab Required. 3 credit hours.

**ELEC 245 COMPUTER ARCHITECTURE**

This course will cover tri-state output circuits, added detail to flip-flops and integrated circuitry, magnetic bubble storage, charge coupled devices, semi-conductor memories, and read only memories. A micro-programmed version of BLUE will be discussed to illustrate this important design tool. Also brief discussions on STARAN, ILLIAC IV, and the Hypercube machines as examples of array processors. PREREQUISITE: ELEC 141. Lab Required. 4 credit hours.

**ELEC 250 ELECTRONIC DEVICES**

This is a survey course of solid state devices and their associated circuitry. This course is intended to teach the student fundamentals of common electronic circuits which contain integrated circuits and to teach elements of solid state devices from the principle of the PN junction through the function of integrated circuits. Lab Required. 4 credit hours.

**ELEC 251 APPLIED ELECTRONIC CIRCUITS**

Electronic circuit applications with considerations in areas of high speed EMI; high-speed switching, coupling and decoupling circuits, transmission modes, noise source and types, transconductive, measurement techniques. PREREQUISITE: ELEC 250. Lab Required. 4 credit hours.

**ELEC 262 POWER SUPPLY SYSTEMS**

This course presents the theory and operation of linear and switching power supplies. Topics covered will be: waveform analysis to include pulse characteristics and pulse train measurements, full-wave rectification, filtering, and regulation. PREREQUISITE: ELEC 125. Lab Required. 4 credit hours.

**ELEC 290 MICROCOMPUTER SYSTEMS**

This course will focus on microcomputer interfacing and the use of programmable peripheral devices. Selected programmable interface devices will be studied and the software and hardware interfaces developed. Experience in testing and troubleshooting interface circuits will be provided in a laboratory setting. Specialized logic analyzer and emulation systems will be utilized. PREREQUISITE: ELEC 241 or equivalent course. Lab Required. 4 credit hours.

**EMTP 121 INTRODUCTION TO EMERGENCY CARE**

This course presents an overview of emergency medical care systems, including historical, state-of-the-art, and future perspectives. Legal and ethical issues and responsibilities of emergency care responders are covered. Included as well is training in emergency care. Students successfully completing the course will be eligible to take the State Examination for certification as Emergency Care Attendant (ECA). Lab Required. 3 credit hours.

**EMTP 141 EMERGENCY MEDICAL PROCEDURES**

Successful completion of this course qualifies a student to take the State Examination for Emergency Medical Technician (EMT) certification. Included are classroom, clinical, and ambulance training. Topics covered include anatomy and physiology, extrication and management of injured patients, cardiopulmonary resuscitation (CPR), bleeding control and pneumatic anti-shock garments (MAST). Lab and Clinical Required. 5 credit hours.

**EMTP 149 EMERGENCY MEDICAL DISPATCH**

This course is designed to familiarize and equip communications personnel to give medical advice over the telephone while emergency responders are en route to the scene. Lab Required. 3 credit hours.

**EMTP 211 SPECIAL SKILLS TRAINING**

Successful completion of EMTP 211 qualifies a student to take the State Examination for EMT-Special Skills certification. In addition, this course is part of a sequence of courses (EMTP 211, 221,231) designed to qualify a student to take the State Examination for Advanced EMT (Paramedic). This course introduces the student to skills required for providing Advanced Life Support (ALS). All areas of EMT training are reviewed. In addition, Department of Transportation (DOT) EMT-Advanced Course Modules I, II, III and V are covered. PREREQUISITE: EMT CERTIFICATE. Lab and Clinical Required. 5 credit hours.

**EMTP 221 PARAMEDIC PROCEDURES I**

This course is one of a series of courses (EMTP 211, 221, 231) designed to prepare the successful student to take the State Examination for Advanced EMT (Paramedic) certification. Department of Transportation (DOT) Modules IV and VII are covered in this course including general pharmacology and the central nervous system. PREREQUISITE: EMT CERTIFICATION. Lab and Clinical Required. 3 credit hours.

**EMTP 225 PHARMACOLOGY**

This course is designed to train emergency medical responders to prepare and administer emergency medicines safely and therapeutically. Mathematics of medications, preparation and administration of medication, therapeutic effects of drugs, side effects of drugs, toxic effects of drugs, drug interactions and contraindications are included. PREREQUISITE: EMT CERTIFICATION, MATH 150 or equivalent. Lab Required. 4 credit hours.

**EMTP 230 EMERGENCY MEDICAL SERVICES MANAGEMENT**

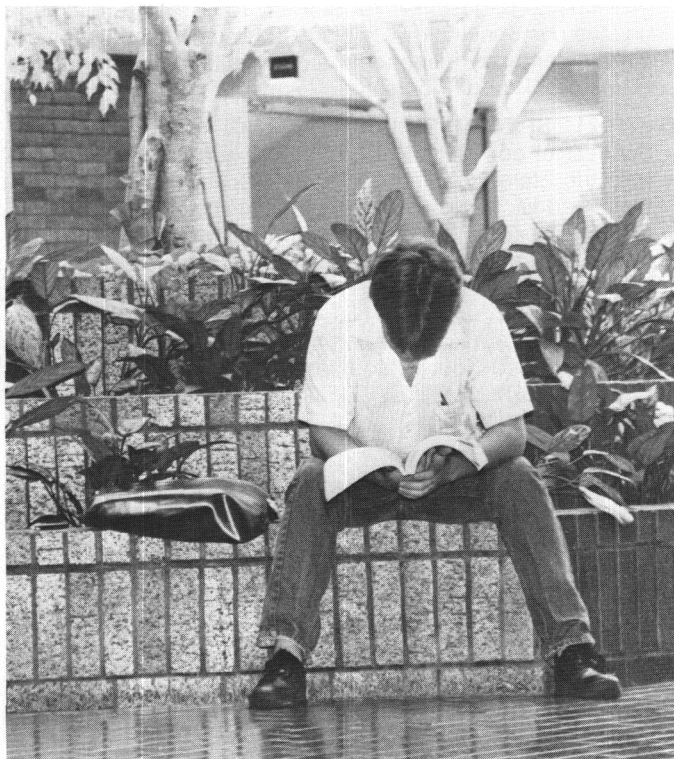
This course will assist students in understanding the complex workings of ambulance operations, including problems related to supervision, morale, communication, insurance, equipment purchasing and maintenance, scheduling and training. PREREQUISITE: EMT CERTIFICATION. 3 credit hours.

**EMTP 231 PARAMEDIC PROCEDURES II**

This course is one of a series of courses (EMTP 211, 221, and 231) designed to prepare the successful student to take the State Examination For EMT-Advanced (Paramedic) certification. Department of Transportation (DOT) Modules VI, VIII, IX, X, XI, XII, XIII, XIV, and XV are covered including: the cardiovascular system; soft tissue injuries; musculoskeletal injuries; medical emergencies; obstetric/gynecological emergencies; pediatrics and neonatal transport; management of the emotionally disturbed; rescue techniques; telemetry and communications. PREREQUISITE: EMT CERTIFICATION. Lab and Clinical Required. 7 credit hours.

**EMTP 296 SEMINAR: EMERGENCY MEDICAL RESPONDERS**

This course is designed to keep students informed on a variety of issues affecting emergency medical care. Weekly topics will range widely, covering topics from equipment and techniques to moral and legal issues. (May be repeated for credit.) 1 credit hour.



**ENGL 040 DEVELOPMENTAL WRITING I**

A skills improvement course designed to help the student improve basic writing skills necessary for Composition/Rhetoric I. Focus is on paragraph and short essay writing. Basic grammar, punctuation, and sentence construction studied as needed. This course may not be used to satisfy the requirements of an Associate Degree. Lab Required. 3 credit hours.

**ENGL 041 DEVELOPMENTAL WRITING II**

A skills improvement course designed to help students reach competencies necessary for Composition/Rhetoric I. Focus is on advanced paragraph development and medium length essay writing. Critical reading skills, analytical writing, and vocabulary building are emphasized. Punctuation and sentence construction studied as needed. This course may not be used to satisfy the requirements of an Associates Degree. Lab Required. 3 credit hours.

**ENGL 151 COMPOSITION/RHETORIC I**

A beginning freshman course in writing. Development of paragraphs and the whole composition, study of model essays, extensive theme writing, individual conferences, departmental competency exam. Assessment prior to enrollment required. Lab Required. 3 credit hours.

**ENGL 152 COMPOSITION/RHETORIC II**

Continued development of skills acquired in English 151 and development of skills in argumentation and analysis. Extensive theme writing, study of research methods and materials, preparation of research paper, modular units emphasizing writing in the student's field of study, individual conferences. PREREQUISITE: ENGL 151. Lab Required. 3 credit hours.

**ENGL 251 FORMS OF LITERATURE I**

A study of short stories, novels, and non-fiction. Analysis and evaluation of major writers in these genres, their techniques, and their contributions to our literary heritage. PREREQUISITE: ENGL 152. 3 credit hours.

**ENGL 252 FORMS OF LITERATURE II**

A study of mythology, drama, and poetry. Analysis and evaluation of our classical heritage, the origins of drama and development of contemporary drama and film, and the elements and types of poetry. PREREQUISITE: ENGL 152. 3 credit hours.

**ENGL 253 BRITISH LITERATURE I**

A general survey of major works in British literature from its origin to the beginning of the Romantic movement. Analysis of these works in their historical, cultural, and social contexts. PREREQUISITE: ENGL 152. 3 credit hours.

**ENGL 254 BRITISH LITERATURE II**

A general survey of major works in British literature from the Romantic period to the present. Analysis of these works in their historical, cultural, and social contexts. PREREQUISITE: ENGL 152. 3 credit hours.

**ENGL 255 AMERICAN LITERATURE I**

The study of major writers from the Colonial Period to the beginning of the Civil War. The analysis and evaluation of these works in their historical, cultural, and social contexts and the study of their contributions to the growth of American Literature. PREREQUISITE: ENGL 152. 3 credit hours.

**ENGL 256 AMERICAN LITERATURE II**

The study of major writers from the Realistic Movement to the present. Evaluation and analysis of these works in their historical, cultural, and social contexts and the study of their contributions to the growth and development of American Literature. PREREQUISITE: ENGL 152. 3 credit hours.

**ENGL 257 WORLD LITERATURE I**

This course introduces the student to a multiplicity of literary histories beginning with the classical Greek period through the sixteenth century. The students will read representative selections, analyze, and discuss philosophies, societal mores, social milieus, and social concerns. PREREQUISITE: ENGL 152. 3 credit hours.

**ENGL 258 WORLD LITERATURE II**

This course introduces the student to a multiplicity of literary histories beginning with the seventeenth century through the twentieth century. The students will read representative selections, analyze, and discuss philosophies, societal mores, social milieus, and social concerns. PREREQUISITE: ENGL 152. 3 credit hours.

**ENGL 291 TECHNICAL WRITING**

A comprehensive introduction to technical writing and technical communication. Review of mechanical techniques employed in correct technical writing. Preparation of reports, proposals, technical papers, abstracts, and summaries within the specific areas of technical interest of the student. Preparation of a portfolio of the student's technical writing. PREREQUISITE: ENGL 151. Lab Required. 3 credit hours.

**ENGR 151 ENGINEERING GRAPHICS**

Use of instruments, applied geometry, engineering lettering, orthographic projections, dimensioning, pictorial drawing and sketching, sectional views, and working drawings. PREREQUISITE: MATH 135 or concurrent enrollment in MATH 135. Lab Required. 3 credit hours.

**ENGR 191 ENGINEERING MECHANICS I**

Vectors, tensors, foundations of mechanics. Motion of particles including momenta, energy, work concepts. Statics including concept of free-body diagrams, friction forces, virtual work. PREREQUISITE: MATH 192. 3 credit hours.

**ENGR 192 ENGINEERING MECHANICS II**

Dynamics of particles including harmonic motion, motion of a particle in a central force field, momentum, and energy methods. Relative motion in rigid bodies. PREREQUISITE: ENGR 191. 3 credit hours.

**ENGR 291 MATERIALS AND PROCESSES**

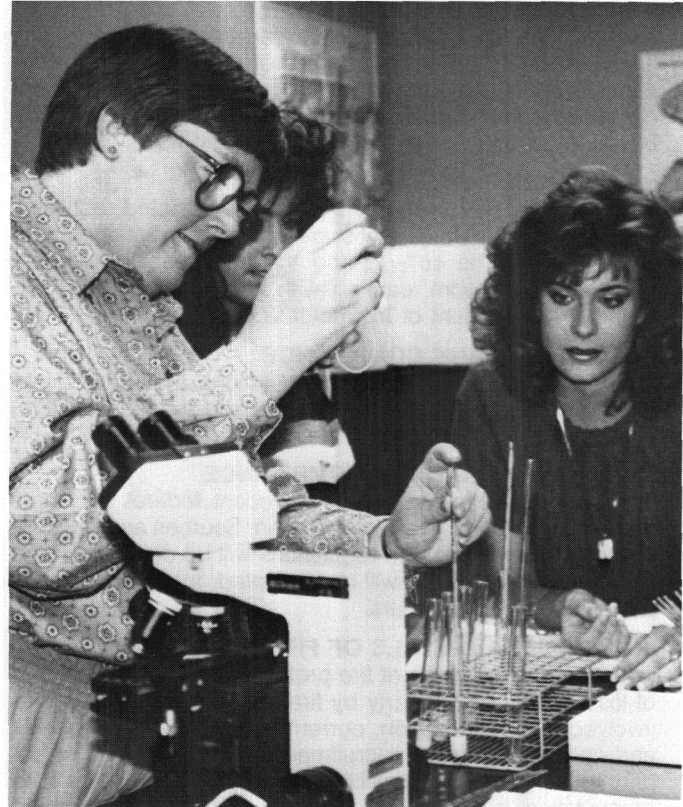
Simple structural elements are studied. Emphasis is on forces, deformation, and material properties. The concepts of stress, strain, and elastic properties are presented. Analysis of thin-walled vessels, members loaded in tension, torsion, bending and shear, combined loadings, and stability conditions are included. Behavior phenomena such as fracture, fatigue, and creep are introduced. PREREQUISITE: ENGR 191. 3 credit hours.

**ENGR 292 ELECTRICAL CIRCUIT ANALYSIS**

Electrical science introduced. Included are fundamental electrical systems and signals. Basic concepts of electricity and magnetism with mathematical representation and computation are also examined. PREREQUISITE: MATH 293 or Concurrent Enrollment in MATH 293; ELEC 131 or Consent of Instructor. Lab Required. 4 credit hours.

**FIN 131 PERSONAL FINANCE**

This course is a study of the financial problems encountered in managing a family unit. Financial planning; life, health, auto insurance; budgeting; use of credit; home ownership; savings; investment; and tax problems are covered. 3 credit hours.

**FIN 132 SAVINGS AND TIME DEPOSITS**

This course covers the historical development of the savings process as an integral link in financial flows. Particular attention is given to interest rate theory, the intermediation process, and deposit definitions. It includes a limited discussion concerning the money multiplier. PREREQUISITE: BANK 131 or CRDT 131. 3 credit hours.

**FIN 134 CONSUMER LENDING**

This course gives an overview of the role of consumer credit in the financial institution and the operation of the consumer credit function. PREREQUISITE: BANK 131 or CRDT 131. 3 credit hours.

**FIN 233 CREDIT ADMINISTRATION AND ANALYSIS OF FINANCIAL STATEMENTS**

This course is a study of the factors influencing and determining loan policy. The characteristics and analysis of both personal and corporate financial statements are also covered. PREREQUISITE: BANK 131 or CRDT 131; ACCT 191. 3 credit hours.

**FIN 234 MONEY AND FINANCE**

This course covers: the definitions for money, the essential economic principles related to banks and financial institutions, the principles that govern financial markets, the economic impact of domestic and international central banks, inflation, and the international financial system. 3 credit hours.

**FIN 235 CONSUMER COLLECTION**

This course covers the establishment of collection procedures cost analyses, repossession, bankruptcy, and the Fair Credit Collections Act. 3 credit hours.



**FIN 241 COOPERATIVE EDUCATION I**

A comprehensive treatment of career related activities encountered in the student's area of specialization. Under supervision of the college and the employer, the student combines classroom learning with work experience. **PRE-REQUISITE:** Consent of Instructor. 3 credit hours.

A comprehensive treatment of career related activities encountered in the student's area of specialization. Under supervision of the college and the employer, the student combines classroom learning with work experience. **PRE-REQUISITE:** Consent of Instructor. 3 credit hours.

**FIN 296 BASIC BANK COMPLIANCE**

Overview of banking industry regulations and procedures for compliance with government imposed requirements. Instructor approval required. 1 credit hour.

**FIN 297 ADVANCED BANK COMPLIANCE**

This course exposes students to recent federal and state mandated changes in bank operation. Sources and applications of the new laws and regulations will be discussed, and compliance techniques will be illustrated. Instructor approval required. 2 credit hours.

**FISC 106 FUNDAMENTALS OF FIRE PROTECTION**

History and philosophy of fire protection, review of statistics of loss of life and property by fire, introduction to agencies involved in fire protection, current legislative developments and career orientation, recruitment and training for fire departments, position classification and pay plans, employee organization, a discussion of current related problems, and review of expanding future fire protection problems. 3 credit hours.

**FISC 112 FIRE PREVENTION**

The objectives and view of inspections, fundamental principles, methods, techniques, and procedures of fire prevention administration. Fire prevention organization, public cooperation and image, recognition of fire hazards, insurance problems and legal aspects, development and implementation of a systematic and deliberate inspection program. Survey of local, state, and national codes pertaining to fire prevention and related technology relationship between building inspection agencies and fire prevention organizations. Engineering as a solution to fire hazards. 3 credit hours.

**FISC 116 FIRE SAFETY EDUCATION**

The study of the design, development, and delivery of Public Fire and Burn Safety Information and education programs including: methods of identification of fire and burn problems, the selection of target problems and strategies to affect reduction, methods of designing and implementing information and education programs, and methods of evaluating program impact. Study includes theoretical and practical skills training in individual, group, and mass media communications, instructional skills, planning priorities, and evaluation techniques. 3 credit hours.

**FISC 117 FIRE PROTECTION SYSTEMS**

A study of basic built-in fire detection, alarm, and extinguishing systems. An examination of the devices and systems installed in buildings used to protect life and property from fire and support the role of the fire department through early detection of fire and extinguishment. 3 credit hours.

**FISC 121 INDUSTRIAL FIRE PROTECTION I**

Specific concerns and safeguards related to business and industrial organizations. A study of industrial fire brigade organization and development, plant layout, fire prevention programs, extinguishing factors and techniques, hazardous situations, and prevention methods. Gaining cooperation between the public and private fire department organizations. Study of elementary industrial fire hazards in manufacturing plants. 3 credit hours.

**FISC 125 CHEMISTRY OF HAZARDOUS MATERIALS I**

Study of chemical characteristics and behavior of various materials that burn or react violently related to storage, transportation, handling hazardous materials, i.e., flammable liquids, combustible solids and gases. Emphasis on emergency situations and the most favorable methods of handling fire fighting and control. 3 credit hours.

**FISC 131 BUILDING CODES AND CONSTRUCTION**

Fundamental consideration and exploration of building construction and design with emphasis on fire resistance of building materials and assemblies, exposures, and related data focused on fire protection concerns; review of related statutory and suggested guidelines, both local and national scope. Review of Model Building Codes and Life Safety codes. 3 credit hours.

**FISC 133 FIRE CAUSE AND ORIGIN DETERMINATION**

A study of the detection of arson, investigation techniques, case histories, gathering and preserving of evidence; preparing for a court case; selected discussion of laws, decision, and opinions; kinds of arsonists, interrogation procedures, cooperation, and coordination between fire fighters and arson investigators, and other related topics. 3 credit hours.

**FISC 141 FIRE ADMINISTRATION I**

An in-depth study of the organization and management as related to a fire department including budgeting, maintenance of records and reports, and management of fire department officers. Personnel administration and distribution of equipment and personnel and other related topics, including relation of various government agencies to fire protection areas. Fire Service Leadership as viewed from the Company Officer's position. 3 credit hours.

**FISC 148 FIRE FIGHTING TACTICS AND STRATEGY**

Essential elements in analyzing the nature of fire and determining the requirements. Efficient and effective utilization of manpower, equipment, and apparatus. Emphasis to be placed on pre-planning, study of conflagration problems, fire ground organization problem solving related to fire ground decision making, and attack tactics and strategy. Use of Mutual Aid and large scale command problems. Lab Required. 4 credit hours.

**FISC 225 CHEMISTRY OF HAZARDOUS MATERIALS II**

Hazardous materials covering storage, handling, laws, standards, and fire fighting techniques associated with chemicals, gases, flammable liquids, corrosives, poisons, explosives, rocket propellants and exotic fuels, and radioactive materials. The formation of toxic fumes and health hazards is also stressed. Ignition and combustion characteristics of gases, liquids, and solids related to free-burning fire and explosion phenomena. Familiarization with radiological instruments, human exposure to radiation, decontamination procedures, common uses of radioactive materials and operational procedures. **PREREQUISITE:** FISC 125. 3 credit hours.

**FISC 237 FIRE INCIDENT REPORTING SYSTEMS**

An in-depth study of computerized systems that may be utilized for storing and retrieval of fire loss statistics, also techniques and procedures for programming various types of records and reports valuable to the fire service. Exploration of the new systems of microfilming including the modern technology of COM (Computer Output Microfilm) and the systems utilizing microfiche, including reduction of ratios and various type readers. A review of standards for the uniform coding for fire protection as developed by the NFPA in Pamphlet 901 and 901 AM. Lab Required. 3 credit hours.

**FISC 241 FIRE ADMINISTRATION II**

Study to include insurance rates and ratings; preparation of budgets; administration and organization of training in the fire department; city water requirements; fire alarm and communication systems; importance of public relations, report writing and record keeping; measurements of results, use of records to improve procedures, and other related topics; legal aspects relating to fire prevention and fire protection with stress on municipal and state agencies; design and construction of fire department buildings. 3 credit hours.

**FMKT 122 FASHION MERCHANDISING**

This course introduces the field of fashion through the examination of modern merchandising techniques. Current trends and developments are covered as well as the history of fashion merchandising. 3 credit hours.

**FMKT 124 FASHION SALES & MARKETING TECHNIQUES**

This course covers the art of salesmanship and the factors involved such as buying motives, customer approach, closing the sale, psychological and sociological factors influencing human behavior, self-confidence, and overcoming objectives. 3 credit hours.

**FMKT 126 FASHION DESIGN**

This is a basic course providing a background of knowledge specific to fashion designers' jobs and responsibilities, fashion design history, and the relationship of apparel design to human needs from an industrial point of view. Custom design, design for mass, line production, coordination, selection, color, and texture are covered. There is no sewing involved in this course. 3 credit hours.

**FMKT 220 FASHION BUYING**

This course covers the responsibilities of a buyer. Sources of buying information, selection of fashion merchandise, methods of inventory, elements of profit, pricing, markup, and markdown are studied. Economic issues relating to domestic versus offshore apparel goods will be researched. 3 credit hours.

**FMKT 222 ADVERTISING & SALES PROMOTION**

This course is an introduction to advertising and sales promotion theories and functions. Identifying media to reach definitive target audiences, using effective media mixes, consumer behavior, as well as the management of promotion programs and budgets. 3 credit hours.

**FMKT 224 TEXTILES FOR CONSUMERS**

This course covers the selection, use, and care of textiles in relation to fiber composition, yarn and fabric structure, color, and finish. The ability to communicate the information to the consumer will be stressed. Laws relating to consumer protection will be examined. 3 credit hours.

**FMKT 240 COOPERATIVE EDUCATION I**

This course is designed to help the student integrate classroom knowledge with work experience. The student, the student's supervisor, and the instructor will coordinate a set of goals for the student to accomplish. Requires the student to attend a 90-minute weekly seminar. PREREQUISITE: FMKT 122 AND FMKT 224 or Consent of Instructor. 3 credit hours.

**FMKT 241 COOPERATIVE EDUCATION II**

This course is designed to help the student integrate classroom knowledge with work experience. The student, the student's supervisor, and the instructor will coordinate a set of goals for the student to accomplish. Requires the student to attend a 90-minute weekly seminar. PREREQUISITE: FMKT 240. 3 credit hours.

**FREN 191 BEGINNING FRENCH I**

An introduction to the four basic skills of speaking, reading, writing, and listening, designed for students with little or no previous language training. Also includes an introduction to selected aspects of French civilization. Instruction is enhanced by the use of tapes, slides, computer software, and video cassettes. Lab Required. 4 credit hours.

**FREN 192 BEGINNING FRENCH II**

A continuation of French 191. PREREQUISITE: FREN 191. Lab Required. 4 credit hours.

**FREN 291 INTERMEDIATE FRENCH I**

Review and continued development of the four basic language skills with increased attention to reading and writing. Instruction enhanced by slides, tapes, and other audiovisual aids. PREREQUISITE: FREN 192 or Consent of Discipline Coordinator. COREQUISITE: FREN 293. 3 credit hours.

**FREN 292 INTERMEDIATE FRENCH II**

A continuation of French 291. PREREQUISITE: FREN 291 COREQUISITE: FREN 294. 3 credit hours.

**FREN 293 CONVERSATIONAL FRENCH I**

Intensive practice in conversational French. Required for majors. PREREQUISITE: FREN 192 or Consent of Discipline Coordinator. COREQUISITE: FREN 291. 1 credit hour.



**FREN 294 CONVERSATIONAL FRENCH II**

A continuation of French 293. Required to majors. PREREQUISITE: FREN 293. COREQUISITE: FREN 292. 1 credit hour.

**FREN 295 FRENCH LITERATURE I**

A survey of French literature in its historical context from the sixteenth through the eighteenth century. Continued practice in the basic language skills. Reading of selected writers such as Ronsard, Moliere, Voltaire. PREREQUISITE: FREN 292. 3 credit hours.

**FREN 296 FRENCH LITERATURE II**

A continuation of French 295. A survey of French literature in the nineteenth and twentieth centuries with reading from representative writers such as Hugo, Baudelaire, and Camus. PREREQUISITE: FREN 292. 3 credit hours.

**GEOG 151 PHYSICAL GEOGRAPHY**

Introduction to the study of the physical environment. Emphasis is on climates, landforms, vegetation and spatial relationships of selected geographical regions of the world. Lab Required. 3 credit hours.

**GEOG 152 CULTURAL GEOGRAPHY**

Introduction to the study of the cultural and economic environment. Emphasis is on origins, diffusion, and distribution of races, religions, and languages. Lab Required. 3 credit hours.

**GEOL 191 PHYSICAL GEOLOGY**

Structure of the earth and its composition including topographic maps, rocks and minerals, and geologic processes. These processes are related to weathering, gradation by wind and running water, ground water, glaciers, oceans, and volcanism. Lab Required. 4 credit hours.

**GEOL 192 HISTORICAL GEOLOGY**

The earth and its inhabitants as revealed in rocks and fossils. Brief survey of the plant and animal kingdoms, elementary principles of stratigraphy, and a systematic study of the development of the earth from its origin as a planet to the present. Lab Required. 4 credit hours.

**GEOL 193 ROCKS AND MINERALS IDENTIFICATION**

The course includes the chemistry, classification, crystallography, identification, and occurrence of minerals. The formation, classification, and identification of igneous, sedimentary, and metamorphic rocks will also be covered. This course is intended primarily for geology majors. Prerequisite: GEOL 191. 4 credit hours.

**GERM 191 BEGINNING GERMAN I**

An introduction to the four basic skills of speaking, reading, writing, and listening, designed for students with little or no previous language training. Also includes attention to aspects of German civilization. Instruction enhanced by the use of tapes, slides, computer software, and video cassettes. Lab Required. 4 credit hours.

**GERM 192 BEGINNING GERMAN II**

A continuation of German 191 with an emphasis on the reading of elementary texts. PREREQUISITE: GERM 191 or equivalent. Lab Required. 4 credit hours.

**GERM 291 INTERMEDIATE GERMAN I**

Review and continued development of the four basic language skills with increased attention to reading and writing. Instruction enhanced by the use of tapes, slides, and other audio-visual aids. PREREQUISITE: GERM 192 or Consent of Discipline Coordinator. 3 credit hours.

**GERM 292 INTERMEDIATE GERMAN II**

A continuation of German 291. Prerequisite: GERM 291. 3 credit hours.

**GERM 293 CONVERSATIONAL GERMAN I**

Intensive practice in conversational German. Required for majors. PREREQUISITE: GERM 192 or Consent of Discipline Coordinator. 1 credit hour.

**GERM 294 CONVERSATIONAL GERMAN II**

A continuation of German 293, intensive practice in conversational German. Required for majors. PREREQUISITE: GERM 293. 1 credit hour.

**GOVT 251 GOVERNMENT OF THE UNITED STATES**

The Constitution and government of the United States. Emphasis is on the structure of governmental institutions, the three branches, political parties, elections, civil rights, and civil liberties. This course and Government 252 fulfill the Texas legislative requirement of 6 credit hours of American Government for Baccalaureate Degrees. Lab Required. 3 credit hours.

**GOVT 252 STATE AND LOCAL GOVERNMENT**

Survey of the Constitution of Texas and state, county, and municipal governments. Emphasis is on federal, state, and interstate relations, financing governmental activities, governmental services and functions. This course and Government 251 fulfill the Texas legislative requirement of 6 credit hours of American Government for Baccalaureate Degrees. Lab Required. 3 credit hours.

**GOVT 297 STUDIES IN GOVERNMENT**

A treatment of selected topics in American or State and Local Government. 3 credit hours.

**HDEV 010 STUDY SKILLS**

The purpose of this course is to help the student improve study habits and skills. The student will assess learning style, study habits and attitudes toward study. Methods and techniques of effective study will be explored. A specific approach to studying will be developed by each student utilizing individual preferences. The student will have the opportunity to practice study skills that enhance the rate of learning. 2 credit hours.

**HDEV 020 STRESS MANAGEMENT**

This course is designed to help the student more effectively manage stress. A comprehensive self-assessment of the sources of stress will be made. The student will explore low stress lifestyle, low stress thinking patterns, systematic relaxation techniques, the role of diet and exercise in managing stress, and how to avoid unnecessary stress. 2 credit hours.

**HDEV 102 DEVELOPING LEADERSHIP POTENTIAL**

The purpose of this course is to help the student develop leadership skills. Topics include leadership style, leadership strategies, problem-solving, decision-making, communication, value systems, and methods of working with groups. The concepts of leadership are explored through both theory and practice. These leadership skills can be applied through the student's personal, professional, and business interactions. 3 credit hours.

**HDEV 103 CAREER PLANNING AND DEVELOPMENT**

Career choices will be explored in relation to interests, values, skills, and abilities. Career assessment and exploration of occupational opportunities will be studied through group and independent study activities. Long and short range career development strategies will be established. Computerized career guidance will be explored on campus. 2 credit hours.

**HDEV 105 PERSONAL DEVELOPMENT**

This course is designed to help the student increase self-esteem, set personal goals that lead to greater motivation and success, and to develop a satisfying lifestyle. Components of a healthy lifestyle will be presented. Problems concerning college survival, educational goals, motivation, interpersonal relationships, societal influences, and personal roles will be explored. 2 credit hours.

**HIST 151 U.S. HISTORY I**

History of the United States is presented focusing on the development of American characteristics and institutions; the forging of a new society from European, African, and American cultures. Emphasis is on the colonial and early national periods through the War Between the States and Reconstruction. This course along with HIST 152 fulfills the Texas legislative requirement for 6 credit hours of history for Baccalaureate degrees. Lab Required. 3 credit hours.

**HIST 152 U.S. HISTORY II**

History of the United States from 1877 to the present day. Focus is on the development of American society in the twentieth century, response to the urban-industrial environment, the United States as a world power and post-World War II society. This course along with HIST 151 fulfills the Texas legislative requirement for 6 hours of history for Baccalaureate degrees. Lab Required. 3 credit hours.

**HIST 251 WESTERN CIVILIZATION I**

A survey of European civilization from ancient times to the Renaissance. Topics include Greece and Rome, the Church, feudalism, the commercial revolution, the Reformation, and early colonial movement. Lab Required. 3 credit hours.

**HIST 252 WESTERN CIVILIZATION II**

A continuation of History 251. Western Europe is surveyed from the Renaissance to the present. Topics include the Age of Revolution, the beginning of industrialism, the growth of nationalism and democracy in the nineteenth century, causes and consequences of the two world wars, and modern Europe. Lab Required. 3 credit hours.

**HIST 253 HISTORY OF TEXAS**

A history of Texas from the Spanish period to the present. Emphasis is on the period of Anglo-American settlement, revolution, Republic, and the development of the modern state. 3 credit hours.

**HIST 298 ADVANCED STUDIES IN U.S. HISTORY**

An in-depth study of selected topics in minority, local, regional, national, or international topics. PREREQUISITE: HIST 151-152. 3 credit hours.

**HLSC 132 MEDICAL TERMINOLOGY**

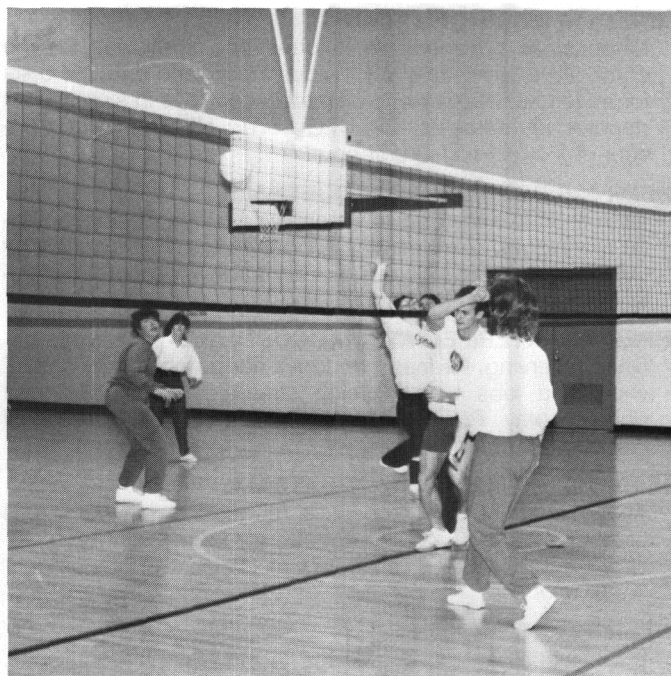
This course is a study of the basic structure of medical words. Included are prefixes, suffixes, roots, combining forms, and plurals. Emphasis is on pronunciation, spelling, and definition. Exercises in the use of the medical dictionary are also included. 3 credit hours.

**HLSC 191 GENERAL NUTRITION**

Nutrients including functions, food sources, digestion, absorption, and metabolism with application to normal and therapeutic human nutritional needs. 3 credit hours.

**HPER 101 INTRODUCTION TO PHYSICAL EDUCATION**

Designed as a career orientation in health, physical education, and recreation. The history, philosophy, and principles including teacher qualifications, vocational opportunities, and skills testing are emphasized. 3 credit hours.

**HPER 103 PERSONAL HEALTH**

Provides an in-depth look at the basic principles of maintaining good health throughout life. The topics cover all aspects of personal health such as mental, consumer, and environmental health, physical fitness, nutrition, and drug education. 3 credit hours.

**HPER 104 SPORTS OFFICIATING**

Knowledge and practice in officiating volleyball, basketball, and other appropriate sports are stressed. Students are expected to officiate tournaments and intramural games. Lab Required. 3 credit hours.

**HPER 106 SAFETY AND FIRST AID**

Students learn to recognize, evaluate and prioritize the first aid needs of individuals in emergency situations. Lectures, demonstrations, and practical experience provide qualified students with American Red Cross certification. 3 credit hours.

**HPER 115 ARCHERY**

Provides instruction in the basic techniques, rules, and scoring. The history and terminology of archery are also investigated. 1 credit hour.

**HPER 116 BADMINTON**

History, rules, basic strokes, and strategies in singles and doubles play are emphasized through intra-class competition. 1 credit hour.

**HPER 117 BEGINNING TENNIS**

Introduction to the rules, scoring, and fundamental techniques for beginners are stressed. Participation by skill level for singles and doubles play is made to insure vigorous activity for fitness. 1 credit hour.

**HPER 118 INTERMEDIATE TENNIS**

Develops and improves each skill level in serving, forehand and backhand drives, lobs, and volleys. Performance strategies for both singles and doubles are drilled. PREREQUISITE: HPER 117 or Consent of Instructor. 1 credit hour.

**HPER 119 ADVANCED TENNIS**

Emphasizes advanced techniques and strategies for the competitive tennis player. Provides theory and practice drills for advanced players who ultimately compete in singles and doubles tournaments. PREREQUISITE: HPER 118 or Consent of Instructor. 1 credit hour.

**HPER 120 BEGINNING RACQUETBALL**

Instruction in rules and basic skills develops the fundamental techniques of court play for beginners. Participation by skill level assures vigorous activity to develop cardiovascular fitness. 1 credit hour.

**HPER 121 INTERMEDIATE RACQUETBALL**

Drills in serving, forehand and backhand drives, kill shots, Z shots and lobs help develop strategies for singles and doubles play. PREREQUISITE: HPER 120 or Consent of Instructor. 1 credit hour.

**HPER 122 ADVANCED RACQUETBALL**

Advanced drills for competitive racquetball players stress techniques and strategies needed for tournament competition. PREREQUISITE: HPER 121 or Consent of Instructor. 1 credit hour.

**HPER 123 BEGINNING GOLF**

Basic fundamentals, knowledge in the history, terminology, and scoring of golf are stressed. 1 credit hour.

**HPER 124 INTERMEDIATE GOLF**

Advanced skill techniques and strategies of golf are developed. PREREQUISITE: HPER 123 or Consent of Instructor. 1 credit hour.

**HPER 126 BOWLING**

Ball selection, stance, four step approach, rules, and scoring procedures are taught. Emphasis is placed on game situations. 1 credit hour.

**HPER 130 BEGINNING AEROBIC DANCE**

Level of physical fitness is improved through rhythmic dance routines, stretching, muscular strengthening, and other aerobic activities. Heart rate, weight, and nutritional status are monitored. 1 credit hour.



**HPER 131 INTERMEDIATE AEROBIC DANCE**

Further toning and trimming of the body is obtained through vigorous exercise routines, stretching, muscular strengthening and other aerobic activities. Heart rate, weight, and nutritional status are monitored. PREREQUISITE: HPER 130 or Consent of Instructor. 1 credit hour.

**HPER 132 ADVANCED AEROBIC DANCE**

An accelerated aerobic conditioning program for advanced fitness students. Advanced exercise routines with weights are choreographed to music to maintain or increase cardiovascular endurance, flexibility and strength. PREREQUISITE: HPER 131 or Consent of Instructor. 1 credit hour.

**HPER 133 BEGINNING MODERN DANCE**

An introduction to the art and discipline of modern dance through analysis of dance techniques, exploration, and composition development. 1 credit hour.

**HPER 139 FOLK DANCE**

Analysis of cultural backgrounds, costumes, and dance techniques leads to participation in a variety of folk dances. 1 credit hour.

**HPER 140 BEGINNING WEIGHT TRAINING AND CONDITIONING**

An introductory course in weight training and body building to learn the basic techniques for strength development and cardiovascular conditioning. The use of the universal weight machine, free weights, dumbbells, bicycle ergometers, rowing machines, and a treadmill are utilized to establish individual fitness program. 1 credit hour.

**HPER 141 INTERMEDIATE WEIGHT TRAINING AND CONDITIONING**

Advanced techniques in strength development and cardiovascular conditioning assists individuals in establishing their own fitness program. PREREQUISITE: HPER 140 or Instructor's permission. 1 credit hour.

**HPER 143 BEGINNING JOGGING AND FITNESS**

Develops cardiovascular endurance, flexibility, and strength through jogging, stretching, and weight training. Physical fitness assessment leads to development of an individual fitness program. 1 credit hour.

**HPER 144 INTERMEDIATE JOGGING AND FITNESS**

An accelerated fitness program structured for further improvement in cardiovascular endurance, flexibility, and strength. PREREQUISITE: HPER 143 or instructor's permission. 1 credit hour.

**HPER 150 BASKETBALL**

Fundamental skills and strategies are reviewed through knowledge of the history, rules, terminology. Students then participate in game situations. 1 credit hour.

**HPER 152 SOCCER**

Develops the basic skills and strategies through knowledge of the history, rules, and terminology are taught along with participation in game situations. 1 credit hour.

**HPER 154 SOFTBALL**

Fundamental skills including throwing, batting, fielding, and base running as well as knowledge of the rules and terminology are emphasized along with participation in game situations. 1 credit hour.

**HPER 156 VOLLEYBALL**

Individual skills and techniques, application of rules, and an introduction to offensive and defensive strategies are stressed in this course. 1 credit hour.

**HPER 160 BEGINNING SWIMMING**

Non-swimmers and beginners are taught basic swimming skills and strokes. Personal safety skills and confidence in the water are emphasized. 1 credit hour.

**HPER 161 INTERMEDIATE SWIMMING**

Includes further stroke development in front and back crawl, side stroke, breast stroke, diving, and some competitive swimming techniques. Development of cardiovascular endurance is stressed through lab swimming. PREREQUISITE: HPER 160 or instructor's permission. 1 credit hour.

**HPER 163 ADVANCED LIFE SAVING**

Skills, methods, and techniques involved in lifesaving and water safety are reviewed. Successful completion leads to American Red Cross Lifesaving Certification. PREREQUISITE: Ability to swim 500 yards continuously using following strokes: back, breast, crawl, and side, or HPER 161. 1 credit hour.

**HPER 164 WATER SAFETY INSTRUCTION**

Successful completion of the course allows the students to take the standardized test given by the American Red Cross examiners for certification as a water instructor. PREREQUISITE: Current American Red Cross Senior Lifesaving Certificate. 1 credit hour.

**HPER 170 SELF DEFENSE**

A basic understanding and practical application of fundamental self defense techniques through physical conditioning includes balance, focus, breath control, block and counter, avoiding attack, striking, thrusting, and kicking. 1 credit hour.

**HPER 172 WRESTLING**

Introduces basic skills, knowledge of rules, techniques, and physical conditioning so that offensive maneuvers, defensive maneuvers, and pinning combinations can be drilled. 1 credit hour.

**HUM 151 INTRODUCTION TO THE HUMANITIES**

A course designed to achieve a clearer understanding of the nature of man and his need to create. The course explores the relationship between one's own values, feelings, attitudes, and ideas and man's cultural achievements. Lab Required. 3 credit hours.

**JAPN 191 BEGINNING JAPANESE I**

An introduction to the basic skills of speaking, reading, writing, listening with attention to selected aspects of Japanese culture. 4 credit hours.

**JAPN 192 BEGINNING JAPANESE II**

An introduction to the basic skills of speaking, reading, writing, listening, with attention to selected aspects of Japanese culture. A continuation of JAPN 191. PREREQUISITE: JAPN 191. 4 credit hours.

**JOUR 151 INTRODUCTION TO MASS COMMUNICATION**

A study of the mass media in the United States with emphasis on newspapers, magazines, radio, and television, history of the mass media, and the role and responsibility of the mass media in modern society. 3 credit hours.

**JOUR 152 NEWS GATHERING AND WRITING I**

Experience in writing and publishing a bi-monthly community college newspaper. Extensive practice in writing various stories in the areas of international, national, and local news, sports, business, lifestyles, etc. PREREQUISITE: ENGL 152 or consent of instructor. 3 credit hours.

**JOUR 153 NEWS GATHERING AND WRITING II**

Continuation of Journalism 152 with emphasis on more advanced reporting techniques such as complex stories, follow-up stories, features, and profiles. PREREQUISITE: JOUR 152. 3 credit hours.

**JOUR 251 SURVEY OF BROADCASTING**

Study of the historical, theoretical, and technical development of broadcast journalism. Emphasis on social, political, economic, and ethical aspects of the broadcast industry. 3 credit hours.

**JOUR 290 NEWS PHOTOGRAPHY**

Problems and practices of photographers on newspaper and magazine news publications shooting under different lighting and using flash and electronic flash will be studied. Emphasis on work under pressure and high-speed processing. 3 credit hours.

**LATN 191 BEGINNING LATIN I**

An introduction to Latin grammar with emphasis on vocabulary building and on the value of Latin for the study of English and modern foreign languages. Lab Required. 4 credit hours.

**LATN 192 BEGINNING LATIN II**

A continuation of Latin 191. PREREQUISITE: LATN 191. Lab Required. 4 credit hours.

**LEGL 130 LAW AND JUDICIAL SYSTEMS**

An introduction to the history of American law, law of evidence, civil and criminal procedure, and to various areas of both civil and criminal substantive law. Study of various personnel in the legal field, the unauthorized practice of law, and legal ethics. 3 credit hours.

**LEGL 131 CIVIL PROCEDURE**

Overview of civil litigation in both state and federal courts with particular emphasis on the areas in which a legal assistant can assist the trial attorney. Particular attention is paid to preparation for litigation, discovery proceedings (interrogatories, requests for admissions, depositions, and document production), pre-trial proceedings, and trial. 3 credit hours.

**LEGL 135 LAW OFFICE MANAGEMENT**

Ethical considerations, office organization, specialized bookkeeping and accounting for attorneys, fees and billing procedures, scheduling and calendaring, management of personnel, proofreading, management of investigations and file preparation, legal drafting, management and organization procedures for specialized areas of law, special considerations with respect to attorney's trust account, preparation of law office forms, checklists and files, and disbursement on behalf of clients. 3 credit hours.

**LEGL 236 LEGAL RESEARCH**

Fundamentals of legal bibliography and legal research. Practical research problems utilizing legal books and sets of books. Techniques of legal analysis. Samples of various legal writings will be prepared by students. Lab Required. 3 credit hours.

**LEGL 237 TEXAS LEGAL SYSTEMS**

Review of the court system of Texas, review of the American Judicial System touching on its historical background, introduction to the Federal Court Systems and legal practices and how they relate to courts and court administration. 3 credit hours.

**LEGL 238 LAW OF DEFENDANTS AND POLICE RELATIONSHIPS**

**(Proposed for Spring, 1989)**

A study of the Constitutional tensions between the rights of individuals accused by police of criminal violations and the rights of society to police protection from criminal activity of others. A study of civil rights actions against police. 3 credit hours.

**LEGL 242 PERSONAL PROPERTY, SALES, AND CREDIT**

Introduction to elements of the law of personal property, contracts, legal research projects, forms related to law of sales and credit transaction, and survey of the Uniform Commercial Code. 3 credit hours.

**LEGL 251 FAMILY LAW**

Separation, adoption, divorce, custody, change of name, guardianship, legitimacy, support, and other related legal topics. Emphasis on Texas Law: Texas Family Code, Community Property and Case Law. 3 credit hours.

**LEGL 252 WILLS, TRUSTS, AND PROBATE**

Fundamental principles of wills and trusts. The organization and jurisdiction of the Texas Probate Court, and analysis of the administration of estates in Texas Probate, guardianships and independent administration of decedents' estates, and a review of estate and inheritance taxes. 3 credit hours.

**LEGL 261 BUSINESS ORGANIZATIONS**

The legal structure of business organizations: corporations, joint stock companies, common law contracts, professional associations, proprietorships, limited partnerships, and partnerships. 3 credit hours.

**LEGL 262 TORT AND INSURANCE LAW**

Fundamental principles of the law of tort and insurance. Includes a study of the research and investigation techniques necessary for tort and insurance negotiation, settlement, and litigation. Some governmental insurance programs will be covered. 3 credit hours.

**LEGL 263 INCOME TAXATION AND LEGAL ACCOUNTING**

Federal, state, and local income tax of individuals and tax-paying entities such as estates, trusts, and corporations. Introduction to accounting as it relates to legal problems. PREREQUISITE: Consent of Instructor. 3 credit hours.

**LEGL 264 BUSINESS LEGAL ENVIRONMENT**

Role of law in business and society, legal reasoning, sources of law, social policy and legal institutions, antitrust, security regulations, consumer protection, environmental law, worker health and safety, employment discrimination, etc. 3 credit hours.

**MATH 010 DEVELOPMENTAL MATH**

A review of basic arithmetic operations with whole numbers, fractions, decimals, percents, and an introduction to algebra which includes signed numbers, expressions, and equations. This course may not be used to satisfy the requirements of an Associate Degree. Lab Required. 3 credit hours.

**MATH 020 DEVELOPMENTAL ALGEBRA**

A review of signed numbers, expressions, equations, inequalities, polynomials, radicals, exponents, quadratics, and graphing. This course may not be used to satisfy the requirements for an Associate Degree. PREREQUISITE: MATH 010 or equivalent. Lab Required. 3 credit hours.

**MATH 030 INTERMEDIATE ALGEBRA**

A review of operations of polynomials, rational expressions, radicals, rational exponents, absolute value equations, quadratics, solutions of linear systems and inequalities, graphing, and an introduction to conic sections and functions. This course may not be used to satisfy the requirements of an Associate Degree. PREREQUISITE: One year of standard high school algebra or equivalent. Lab Required. 3 credit hours.

**MATH 135 PRE-CALCULUS FOR TECHNOLOGY**

A study of functions including trigonometric, exponential, and logarithmic, systems of equations, complex numbers, vectors, trigonometric identities, radian measure, and plane analytic geometry with applications in various technical fields. PREREQUISITE: MATH 030 or acceptable score on placement exam. Lab Required. 5 credit hours.

**MATH 150 CONTEMPORARY MATHEMATICS**

Intended for general liberal arts or non-engineering technical students. Topics include sets, logic, solving equations and inequalities, graphs and functions, counting methods, probability and consumer mathematics. PREREQUISITE: Two years high school algebra or equivalent. 3 credit hours.

**MATH 151 PRE-CALCULUS FOR BUSINESS AND ECONOMICS**

A course designed for non-math majors which includes a study of equations, inequalities, functions, matrices, linear programming including the simplex method, and sequences. PREREQUISITE: Two years high school algebra or equivalent. Lab Required. 3 credit hours.

**MATH 152 CALCULUS FOR BUSINESS AND ECONOMICS**

A continuation of MATH 151; a study of probability, finite differential calculus, finite integral calculus, including exponential and logarithmic functions. PREREQUISITE: MATH 151. Lab Required. 3 credit hours.

**MATH 153 STATISTICS**

A study of data collection and tabulation, measures of central tendency, correlation, linear regression, statistical distributions, probability, and hypothesis testing with applications in various fields. PREREQUISITE: 2 years of high school algebra or equivalent. 3 credit hours.

**MATH 181 COLLEGE ALGEBRA**

A study of relations and functions, including linear, polynomial, exponential, and logarithmic inverse functions, composition of functions, absolute value, variation, theory of equations, complex numbers, systems of equations, matrices, progressions, and the binomial theorem. PREREQUISITE: Two years high school algebra or equivalent. 3 credit hours.

**MATH 182 TRIGONOMETRY**

A study of angular measure, functions of angles, identities, solution of triangles, equations, inverse trigonometric functions, complex numbers, and polar coordinates. PREREQUISITE: Two years of high school algebra and one year of high school geometry or MATH 181 or concurrent enrollment in MATH 181. 3 credit hours.

**MATH 183 ANALYTIC GEOMETRY**

A study of lines, distance, conics, transformation of coordinates, polar coordinates, parametric equations, and other selected topics. PREREQUISITE: MATH 182 or 4 years of standard high school math. 3 credit hours.

**MATH 191 CALCULUS I**

A study of limits, continuity, the derivative, applications of the derivative, the indefinite and definite integral, and derivatives and integrals of trigonometric, logarithmic, and exponential functions. PREREQUISITE: MATH 183 or equivalent or concurrent enrollment in MATH 183. Lab Required. 4 credit hours.

**MATH 192 CALCULUS II**

A study of calculus of inverse functions, hyperbolic functions, applications of integration, techniques of integration, infinite series, parametric equations, and polar functions. PREREQUISITE: MATH 191. Lab Required. 4 credit hours.

**MATH 235 CALCULUS FOR TECHNOLOGY**

A study of the derivative, applications of the derivative, the integral, differentiation and integration of transcendental functions, and techniques of integration. PREREQUISITE: MATH 135 or consent of instructor. Lab Required. 5 credit hours.

**MATH 290 DISCRETE STRUCTURES**

A study of introductory mathematical logic, mathematical induction, relations, functions, combinatorics, counting techniques, graphs, trees, and networks. PREREQUISITE: MATH 191 and ability to program in a high level structured language. Lab Required. 3 credit hours.

**MATH 291 CALCULUS III**

A study of vectors in two and three dimensions, vector-valued functions, functions of several variables, multiple integration, and the calculus of vector fields. PREREQUISITE: MATH 192. Lab Required. 4 credit hours.

**MATH 292 LINEAR ALGEBRA**

A study of linear equations, matrices, real vector spaces, linear transformations, and eigenvectors. PREREQUISITE: MATH 192. 3 credit hours.

**MATH 293 DIFFERENTIAL EQUATIONS**

A study of ordinary differential equations including systems of equations, linear equations, separation of variables, series solutions, uniqueness of solutions, boundary value problems, transform methods, and singular points. PREREQUISITE: MATH 192. 3 credit hours.

**MUS 140 MUSIC FUNDAMENTALS**

An introduction to the elements of music theory: scales, intervals, keys, triads, elementary ear training, keyboard harmony, notation, meter, and rhythm. 3 credit hours.

**MUS 150 CHOIR**

A wide variety of music representing the choral literature is studied and performed. This course may be repeated for credit. 1 credit hour.

**MUS 151 MUSIC THEORY I**

The basic elements of music. Emphasis is on notation, cadences, diatonic triads, scales, and modes. COREQUISITE: MUS 152. Lab Required. 3 credit hours.

**MUS 152 AURAL SKILLS I**

Skills include sight-singing, ear training, and keyboard harmony. COREQUISITE: MUS 151. 1 credit hour.

**MUS 153 MUSIC THEORY II**

This course concentrates on part-writing and harmonization with triads and their inversions. PREREQUISITE: MUS 151. COREQUISITE: MUS 154. Lab Required. 3 credit hours.

**MUS 154 AURAL SKILLS II**

Skills of sight-singing, ear-training, and keyboard harmony are further developed. PREREQUISITE: MUS 152. COREQUISITE: MUS 153. 1 credit hour.

**MUS 155 CLASS VOICE**

Class instruction in the fundamentals of singing including breath support, correct vocal production and diction. For the non-music major. 1 credit hour.

**MUS 157 CLASS GUITAR**

Class instruction in the fundamentals of beginning guitar. For the non-music major. 1 credit hour.





**MUS 160 BAND**

The band studies and performs a wide variety of music in all areas of band literature. This course may be repeated for credit. 1 credit hour.

**MUS 170 ENSEMBLE**

Small instrumental ensembles. Membership is through audition by the appropriate director. This course may be repeated for credit. 1 credit hour.

**MUS 180 MINOR VOCAL ENSEMBLES**

Any minor vocal ensemble, jazz choir, duet, trio, quartet. Membership is through audition by the appropriate director. This course may be repeated for credit. 1 credit hour.

**MUS 181 MUSIC APPRECIATION**

Understanding music through the study of cultural periods, major composers, and musical elements. 3 credit hours.

**MUS 191 APPLIED MUSIC MAJOR I**

Private instruction in the area of the student's concentration and consists of one 45-minute lesson per week. Fee required. 1 credit hour.

**MUS 194 APPLIED MUSIC MAJOR II**

Private instruction in the area of the student's concentration and consists of one 45-minute lesson per week. PREREQUISITE: MUS 191. Fee required. 1 credit hour.

**MUS 251 MUSIC THEORY III**

A continuation of music theory including the materials of modulation, larger forms, and thematic development. PREREQUISITE: MUS 154. COREQUISITE: MUS 252. Lab Required. 3 credit hours.

**MUS 252 AURAL SKILLS III**

Aural study of superimposition, singing modulations to closely related keys, melodic and harmonic modulations, compound intervals. PREREQUISITE: MUS 154. COREQUISITE: MUS 254. 1 credit hour.

**MUS 253 MUSIC THEORY IV**

A continuation of preceding materials including melody, harmony, tonality, and the formal processes of twentieth century music. PREREQUISITE: MUS 251. COREQUISITE: MUS 254. Lab required. 3 credit hours.

**MUS 254 AURAL SKILLS IV**

Singing remote modulations and difficult melodies. Aural study of unusual and mixed meters; altered chords; ninth, eleventh, and thirteenth chords. PREREQUISITE: MUS 252. COREQUISITE: MUS 253. 1 credit hour.

**MUS 255 CLASS PIANO**

Introduction to fundamentals of keyboard technique for the non-music major. 1 credit hour.

**MUS 256 PIANO PROFICIENCY I**

Fundamentals of keyboard technique for music majors only. Level I. 1 credit hour.

**MUS 257 PIANO PROFICIENCY II**

Fundamentals of keyboard technique for music majors only. Level II. 1 credit hour.

**MUS 258 PIANO PROFICIENCY III**

Fundamentals of keyboard technique for music majors only. Level III. 1 credit hour.

**MUS 259 PIANO PROFICIENCY IV**

Fundamentals of keyboard technique for music majors only. Can be repeated through Level IV for credit. 1 credit hour.

**MUS 291 MUSIC LITERATURE I**

Study of selected works in music literature from major periods of music history. Topics include texture, characteristics of sound, elements and development of music. Ancient, Renaissance and Baroque, and Classical eras are studied. 3 credit hours.

**MUS 292 MUSIC LITERATURE II**

A continuation of Music 291. Emphasis is on the Romantic, twentieth Century, and popular music. 3 credit hours.

**MUS 293 APPLIED MUSIC MAJOR III**

Continuation of private lessons in the primary performance area of the individual student. One 45-minute lesson per week. PREREQUISITE: MUS 194. Fee Required. 1 credit hour.

**MUS 294 APPLIED MUSIC MAJOR IV**

Continuation of private lessons in the primary performance area of the individual student. One 45-minute lesson per week. PREREQUISITE: MUS 293. Fee Required. 1 credit hour.

**\*NURS 1710 NURSING I**

The basic course in nursing on which all other courses build and expand. Introduction to the nursing process as a problem-solving method to develop the communicative and technical skills necessary to meet basic human needs. Concepts of illness, including the surgically induced, are introduced. Through content and selected clinical experiences, students develop the ability to plan and implement nursing care for all age groups and develop skills common to all patients. Basic concepts of nutrition, pharmacology, community health, and mental health. PREREQUISITES: See Nursing Coordinator. A grade of C or better is required to progress to NURS 1820. Lab required. 7 credit hours.

**\*NURS 1820 NURSING II**

Advanced assessment skills. Application of family-centered nursing care with a focus on normal maternal and child health. Concepts of illness in all age groups include problems that alter mobility (musculo-skeletal system) and disturbances in feelings, thoughts, and behaviors. Principles of nutrition, pharmacology, and community health referrals. PREREQUISITES: See Nursing Coordinator. A grade of C or better is required to progress to NURS 2450. Lab Required. 8 credit hours.

**\*NURS 2450 NURSING III**

Theoretical content continues with disturbances in feelings, thoughts, and behaviors and introduces interferences with basic human needs related to problems of the reproductive and gastrointestinal body systems. This is a summer course taught through individual learning modules. Clinical experience in a state mental health hospital is included as a follow-up theory in mental health. PREREQUISITES: See Nursing Coordinator. A grade of C or better is required to progress to NURS 2910. Lab Required. 4 credit hours.

**\*NURS 2910 Nursing IV**

Theoretical content includes major health problems of all age groups. Theory focuses on the problems of patients with disturbances of the respiratory, urinary, and circulatory systems. More complex approaches to the nursing process encourage students to assimilate and synthesize patient care planning. Team nursing is presented as a method to meet nursing needs for groups of patients. Facilities used for laboratory practice include various community health agencies. PREREQUISITES: See Nursing Coordinator. A grade of C is required to progress to NURS 2920. Lab Required. 9 credit hours.

**\*NURS 2920 NURSING V**

A continuation of Nursing IV. Focuses on the problems of patients with disturbances of the nervous, endocrine, integumentary body systems, communicable diseases, and the complex problems of burns. More complex approaches to the nursing process and team nursing encourage students to assimilate and synthesize patient care planning and implementation and evaluation. Facilities used for laboratory practice include various community health agencies. Seminar sessions enable students to review professional, ethical and legal aspects of the responsibilities of the registered nurse. To prepare the student for the graduate role, a preceptorship of clinical practice is done in the hospital settings. Each student assumes the responsibilities of the graduate nurse under the supervision of a registered nurse. **PREREQUISITES:** See Nursing Coordinator. A grade of C is required in order to graduate. Lab Required. 9 credit hours.

**"NURS 1310 TRANSITIONAL ENTRY LEVEL FOR LICENSED VOCATIONAL NURSES**

Designed to facilitate upward education mobility for the LVN by offering an opportunity for advanced placement into the ADN program. Content includes review of theory and nursing skills included in NURS 1710 and NURS 1920. After completion of this course the LVN will enter NURS 2450. **PREREQUISITES** for entry into NURS 2450: See Nursing Coordinator. A grade of 74 or better is necessary before credit by award is given for NURS 1710 and NURS 1820. Lab Required. 3 credit hours.

\*Grayson County College Curriculum

**OFAD 120 BEGINNING TYPEWRITING**

Beginning instruction for OFAD majors with no previous instruction in typewriting. Fundamental techniques in typewriting are developed. Skills in centering, tabulating, formatting business letters and manuscripts are introduced. Lab Required. 3 credit hours.

**OFAD 121 INTERMEDIATE TYPEWRITING**

Designed to increase speed and accuracy and improve production rates in typing business letters, forms, and manuscripts. **PREREQUISITE:** OFAD 120. Lab Required. 3 credit hours.

**OFAD 122 ADVANCED TYPEWRITING**

Specialized instruction in typing office projects. Emphasis on production with further development of speed and accuracy. Students in the legal program concentrate on legal document production. **PREREQUISITE:** OFAD 121. Lab Required. 3 credit hours.

**OFAD 126 BEGINNING SHORTHAND**

Principles of Gregg shorthand theory are introduced. Emphasis is placed on ability to read, write, and transcribe shorthand outlines. **PREREQUISITE:** OFAD 120. Lab Required. 3 credit hours.

**OFAD 127 INTERMEDIATE SHORTHAND**

Theory review, vocabulary building, development of transcription skills, and speedbuilding procedures with emphasis on grammar and punctuation. **PREREQUISITE:** OFAD 126. **COREQUISITE:** OFAD 121. Lab Required. 3 credit hours.

**OFAD 128 ADVANCED SHORTHAND**

Emphasis is placed on dictation speedbuilding, mailable letter production, and increasing transcription rates. **PREREQUISITE:** OFAD 127, OFAD 121, or concurrent enrollment in OFAD 122. Lab Required. 3 credit hours.

**OFAD 130 OFFICE FUNCTIONS**

Acquaints students with the varied aspects of today's office. Emphasis is on duties, responsibilities, personal qualifications, office procedures, mail handling, filing systems, reprographics, business telephone technique, and job application and interview procedures. **PREREQUISITE:** OFAD 120. **COREQUISITE:** OFAD 121. Lab Required. 3 credit hours.

**OFAD 131 RECORDS MANAGEMENT**

Classifying of collected information for reference and retention as regards alphabetic, numeric, geographic, subject, and functional filing systems. The course will cover the appraisal of filing systems, how to select equipment and supplies, and how to establish controls over files. **PREREQUISITE:** One year high school typing or equivalent. Lab Required. 2 credit hours.

**OFAD 132 PROOFREADING/EDITING**

Designed to teach proofreading and editing skills necessary to assure accuracy in written communications in the business office. **PREREQUISITE:** OFAD 120. Lab Required. 2 credit hours.

**OFAD 133 COMPUTER KEYBOARDING**

Designed for non-majors to teach the inputting of alphabetic and numeric information into electronic equipment through the use of a typewriter-like keyboard. Independent progress method/software driven course. Lab Required. 2 credit hours.

**OFAD 134 ELECTRONIC CALCULATOR**

Develop touch control in the fundamental operation of the electronic printing calculator and advanced machine functions using common business math applications. Lab Required. 3 credit hours.

**OFAD 135 ADMINISTRATIVE COMMUNICATIONS**

Designed to teach the transmission of information within the business environment: communications fundamentals, business English, correspondence applications, report applications, verbal (written and oral) and nonverbal communication applications. **PREREQUISITE:** ENGL 151, OFAD 121 or concurrent enrollment. 3 credit hours.

**OFAD 136 INFORMATION PROCESSING CONCEPTS**

Designed to acquaint students with the automated office; the kinds of documents and information produced in that environment; the impact of word processing equipment, computer technology, and software; various methods in which information is printed, reproduced, communicated, distributed, stored, and retrieved; ergonomic issues, office organization, and employee productivity. PREREQUISITE: OFAD 223 or concurrent enrollment. 3 credit hours.

**OFAD 223 WORD PROCESSING I**

Designed to develop basic word processing skills. Emphasis is placed on editing procedures to create and revise documents using microcomputers and word processing software. Applications include correspondence, repetitive correspondence, multi-page text, and document assembly. PREREQUISITE: OFAD 120. Lab Required. 3 credit hours.

**OFAD 224 WORD PROCESSING II**

Designed to learn the comprehensive features of a second word processing software program using intermediate level output applications including edited correspondence, repetitive correspondence, multi-page text, document assembly, file/sort, and forms. Students in the Legal and Medical Program work on specialized assignments. PREREQUISITE: OFAD 121, 223, or 50 WPM AND PERMISSION OF INSTRUCTOR. Lab Required. 3 credit hours.

**OFAD 225 MACHINE TRANSCRIPTION**

Detailed instruction and practice in machine transcription of letters, memos, and reports. Language, vocabulary, and proofreading skills are reviewed. Projects will be completed using electronic typewriters and word processing equipment. Specialized modules will complement legal and medical programs. PREREQUISITE: OFAD 121; LEG/MED STUDENTS: OFAD 224-LEG/MED. Lab Required. 3 credit hours.

**OFAD 226 WORD PROCESSING III**

Designed to continue word processing skill development for advanced level competency or learn a new word processing software program. PREREQUISITE: OFAD 224 AND 50 WPM. Lab Required. 3 credit hours.

**OFAD 237 MEDICAL OFFICE PROCEDURES**

Introduces the student to the common operations of a medical office and the roles of the medical secretary/transcriptionist. Receptioning, filing, pegboard systems, and insurance filing tasks are studied. Emphasis is placed on typing and procedural projects related to medical office work. PREREQUISITE: OFAD 131, 121; COREQUISITE: HLSC 132. Lab Required. 3 credit hours.

**OFAD 240 COOPERATIVE EDUCATION**

On-the-job experience in a work assignment related to students' field of study. Credit is earned for completion of specific learning objectives and participation in OFAD co-op seminars. Seminars meet twice monthly. PREREQUISITE: Second year standing in career program; program coordinator approval; division dean approval. 3 credit hours.

**OFAD 241 COOPERATIVE EDUCATION**

Continuation of supervised on-the-job training related to students' field of study. Learning objectives are reviewed and new ones established; continued participation in twice monthly seminars. PREREQUISITE: OFAD 240. 3 credit hours.

**OHLT 111 FOLIAGE PLANTS AND INTERIORSKAPING**

Students are introduced to indoor use of plants. Over 150 species are studied including cultural and environmental considerations, disease and insect control. Principles of commercial and private use of plants in indoor environments are studied. Sources of plant materials, purchasing, and maintenance are included. 3 credit hours.

**OHLT 112 PLANT MATERIALS I**

Approximately two hundred small shrubs, vines, groundcovers, perennials and annual plants are studied including use in landscape, cultural and environmental considerations, disease and insect control, sources and cost of plant material are included. 4 credit hours.

**OHLT 113 PLANT MATERIALS II**

Approximately 200 small shrubs, vines, groundcovers, perennials and annual plants are studied including use in landscape, cultural and environmental considerations, disease and insect control, sources and cost of plant material and cost of plant are included. 4 credit hours.

**OHLT 115 TEXAS NATIVE AND HISTORICAL LANDSCAPE PLANTS AND WILDFLOWERS**

Approximately 150 Texas native and historical landscape plants and wildflowers are studied. Origin, historical significance, distribution, use in the landscape and sources of plant material are included. Environmental and cultural factors are considered as well as disease and insect control. 3 credit hours.

**OHLT 125 LANDSCAPE MAINTENANCE I**

Landscape maintenance practices recommended for the fall months are studied and practiced including care of trees, shrubs, and turf, pest control, fertilization and preparation for cold weather. Laboratory experiences in the field are tied to lecture topics. Cost analysis is covered and students learn estimating procedures. Lab Required. 3 credit hours.

**OHLT 126 LANDSCAPE MAINTENANCE II**

Landscape maintenance practices recommended for the winter and spring months are studied including care of trees, shrubs, and turf, pest control, fertilizing, pruning, and preparations for hot weather. Laboratory experiences in the field are tied to lecture topics. Cost analysis is covered and students learn estimating procedures. Lab Required. 3 credit hours.

**OHLT 146 TURF SCIENCE AND MANAGEMENT**

This course is designed as an introduction to turf-grass science and management. Characteristics of turf-grasses, identification, and culture are studied. Modern management practices are explained including installation, renovation, and maintenance. Lab Required. 3 credit hours.

**OHLT 201 BASIC LANDSCAPE DESIGN**

Includes basic drawing skills, fundamentals of site analysis, grading and drainage, and site planning. Emphasis is upon establishing landscape goals then creating appropriate designs to accomplish these goals. Lab Required. 4 credit hours.

**OHLT 202 INTERMEDIATE LANDSCAPE DESIGN**

Students begin to solve design problems associated with small properties such as residences, duplexes, small businesses, churches, and neighborhood parks. PREREQUISITE: OHLT 201. Lab Required. 4 credit hours.

**OHLT 206 LANDSCAPE CONSTRUCTION I**

Preliminary steps in landscape construction are taught including blueprint reading, site survey, site and soil analysis, grading layout and installation of irrigation systems, retaining walls, sidewalks, decks, patios, and lighting. Cost analyses are completed, and job estimating skills are learned. 4 credit hours.

**OHLT 207 LANDSCAPE CONSTRUCTION II**

Ground preparation and planting of trees, shrubs, groundcovers, turf, and vines are covered, plus care of the new landscape until established. Cost analyses are completed and job estimating skills are learned. Lab Required. 4 credit hours.

**OHLT 220 WEEDS, PLANT DISEASES, INSECTS, AND INTEGRATED PEST MANAGEMENT**

This is a comprehensive course in management of infectious disease, insects, and weeds in ornamental landscapes. Students will learn to recognize fungal, bacterial, and virus diseases of trees, shrubs, groundcovers, and turf. Important insects and related pests will be stressed and common weeds identified. Integrated pest management is thoroughly discussed including cultural, biological, and chemical control. A large lecture and laboratory component on chemical use and safety is included. PREREQUISITE: AGRI 173. Lab Required. 5 credit hours.

**OHLT 221 SOILS, SOIL AMENDMENTS, FERTILIZERS AND PLANT NUTRITION**

This course presents a comprehensive study of plant/soil relationships as they relate to plant growth and health. Nutrient and water uptake, root zone oxygen requirements, and transpiration are studied. Use of soil amendments and fertilizers to aid plant growth is covered. Nutritional stress symptoms and remedies are studied. The course also includes a basic study of the nature and properties of common local soils. PREREQUISITE: AGRI 173. Lab Required. 3 credit hours.

**OHLT 236 COOPERATIVE EDUCATION I**

On-the-job experience in a work assignment related to students' field of study. Credit is earned for completion of specific learning objectives and participation in OHLT Co-op Seminars. Seminars meet twice monthly. PREREQUISITE: Consent of Instructor. 4 credit hours.

**OHLT 237 COOPERATIVE EDUCATION II**

Continuation of supervised on-the-job training related to students' field of study. Learning activities are reviewed and new ones established; continued participation in twice monthly seminars. PREREQUISITE: OHLT 236. 4 credit hours.

**OHLT 296 SEMINAR IN ORNAMENTAL HORTICULTURE AND LANDSCAPE TECHNOLOGY**

Topics range widely covering financial, legal, ethical, and aesthetic aspects of the horticultural industry. Plant materials, techniques, history, and trends are other areas to be addressed. May be repeated for credit. 1 credit hour.

**\*OREN 1110 ORIENTATION**

Designed to acquaint students with college policies, curriculum, and key dates for academic decisions. Essentials for successful adjustment to college life stressed. Required of all freshman and transfer students with fewer than 12 semester hours. 1 credit hour.

**PHIL 151 INTRODUCTION TO PHILOSOPHY**

An introduction to critical and reflective thinking as applied to basic problems of existence and the meaning of human life. Selective philosophical problems are examined through the views of major philosophers. Studies will include ancient, medieval, and modern thought. 3 credit hours.

**PHIL 152 LOGIC**

An introduction to symbolic logic. Emphasis is on logical argument, fallacies, inductive and deductive proof, and correct reasoning. 3 credit hours.

**PHIL 153 ETHICS**

An introduction to moral philosophy. Moral problems are examined through a variety of ethical systems. Topics will include the nature of good and evil, abortion, bioethics, sexuality, and world hunger. 3 credit hours.

**PHIL 154 COMPARATIVE RELIGION**

A study of religious traditions: Eastern and Western, ancient and modern. Special emphasis is on such problems as the nature of God, religious experience, immortality, and human freedom. 3 credit hours.

**PHYS 121 UNIFIED TECHNICAL CONCEPTS IN PHYSICS I**

A practical experience oriented course which examines the concepts of force, work, rate, momentum, resistance, and power based on the four energy systems: mechanical, thermal, fluidal, and electrical. PREREQUISITE: MATH 151 or equivalent. Lab Required. 4 credit hours.

**PHYS 122 UNIFIED TECHNICAL CONCEPTS IN PHYSICS II**

A continuation of PHYS 121 which examines the concepts of potential and kinetic energy, force transformers, energy converters, transducers, vibration and waves, time constants, and radiation. PREREQUISITE: PHYS 121. Lab Required. 4 credit hours.

**PHYS 191 GENERAL PHYSICS I**

An algebra based physics course for the non-technical science major, such as pre-architecture, pre-biology, dental, medical, pharmacy, and other. Mechanics, heat, and sound are the broad topics covered. 4 credit hours. 3 Lec, 3 Lab. 2 years of high school algebra or equivalent.

**PHYS 192 GENERAL PHYSICS II**

A continuation of Physics 191 and includes topics of electricity, magnetism, light, optics and relativity. 4 credit hours, 3 Lec, 3 Lab. PREREQUISITE: PHYS 191.

**PHYS 291 COLLEGE PHYSICS I**

A calculus based analysis of classical Newtonian physics designed to meet the needs of science majors, premedical, dental, or engineering students. Topics include laws of motion, force, momentum, work and energy, angular momentum, and rotational and oscillatory motion. Laboratory experiments reinforce concepts presented in lecture. PREREQUISITE: MATH 191. COREQUISITE: MATH 192. Lab required. 4 credit hours.

**PHYS 292 COLLEGE PHYSICS II**

A continuance of Physics 291 that addresses electric fields, AC and DC currents, dielectrics, magnetic fields, magnetic properties of matter, inductance, electromagnetism, properties of waves, optics, and concepts of modern physics. Laboratory experiments reinforce principles presented in lecture. PREREQUISITE: PHYS 291. Lab Required. 4 credit hours.

**PSCI 151 PHYSICAL SCIENCE I**

A survey course that addresses principles of physics and chemistry. Topics include: heat, light, sound, matter, Newtonian physics, electricity and magnetism, gas laws, and optics. PREREQUISITE: MATH 020 or equivalent. 4 credit hours.

**PSCI 152 PHYSICAL SCIENCE II**

A survey course that addresses principles of astronomy, meteorology, and geology. Topics include weather and climate, rocks and minerals, erosion, the solar system, stars, and galaxies. PREREQUISITE: MATH 020 or equivalent. 4 credit hours.

**PSCI 153 ELEMENTARY ASTRONOMY**

An introduction to the solar system, stars, stellar groupings, and galaxies; telescopes and other astronomical instruments are also discussed. Physical characteristics of the motion of bodies in the solar system are studied along with stellar evolution, supernovae, black holes, neutron stars, comets and pulsars. Laboratory exercises, night observations, planetarium and observatory visits all combine to enhance lecture material. Lab Required. 4 credit hours.

**PSCI 154 EARTH SCIENCE**

This course is intended for the non-science major; concepts of earth processes and relation to man will be discussed, including basic principles from physical and historical geology, oceanography, and meteorology. Lab Required and will include field trips. 4 credit hours. 3 Lec, 3 Lab.

**PSYC 121 APPLIED PSYCHOLOGY**

A survey of the applications of psychological knowledge and methodology in the fields of business, industry, education, medicine, law enforcement, and government work. Emphasis on group dynamics and adjustment factors for employment and advancement. Lab Required. 3 credit hours.

**PSYC 151 GENERAL PSYCHOLOGY**

A survey course which introduces the student to the major topics in scientific psychology as applied to human behavior. Topics include research methods, physiological factors, learning, motivation, emotions, personality, adjustment, stress, psychological disorders, and therapies. Application of these principles will be made to the human experience. Lab Required. 3 credit hours.

**PSYC 153 HUMAN SEXUALITY**

The course is to assist the student in the understanding of human sexuality including an appreciation of different approaches to sexuality as well as an awareness of one's own sexuality and its impact on adjustment to life. A student may register for this course as Psychology 153 or Sociology 153, but not for both. 3 credit hours.

**PSYC 155 PSYCHOLOGY OF ADJUSTMENT**

Contemporary academic psychology will be used to help students find answers to specific adjustment questions and complexities of modern life. Psychological theory will be presented enabling students to gain insight into adjustment topics that can be applied to their own lives and the lives of those around them. 3 credit hours.

**PSYC 251 DEVELOPMENTAL PSYCHOLOGY**

The course takes a life-span approach to human development studying the processes of life from conception through adulthood and aging. Information on physical, cognitive, and psychosocial aspects of human growth, development and behavior is included. Application of these principles will be made to daily lifestyles. PREREQUISITE: PSYC 151. Lab Required. 3 credit hours.

**PSYC 252 SOCIAL PSYCHOLOGY**

A study of research and theory regarding social factors that influence human behavior. Focuses on attitudes, interpersonal attraction, aggression, conformity, communication, values, roles, and group processes. Application of these principles will be made to the human experience. A student may register for this course as Psychology or Sociology, but not both. PREREQUISITE: PSYC 151 or SOC 151. Lab Required. 3 credit hours.

**PSYC 253 PSYCHOLOGY OF PERSONALITY**

An in-depth study of theories of personality with practical application of each. Methods of personality measurement and assessment are also included. PREREQUISITE: PSYC 151. Lab Required. 3 credit hours.

**PSYC 255 DRUG USE AND ABUSE**

A view of the individual, the substance, and the cultural context in which they interact. This course is designed to provide a basic understanding of the psychopharmacology of drugs used and abused in today's society. The emphasis of the study will be the major perspectives of drug use including legal, moral, public health, disease model, psychosocial, and socio-cultural. Students may enroll in either psychology or in sociology, but not in both. 3 credit hours.

**QUAL 131 QUALITY ASSURANCE**

This course covers conformance requirements, their measurement, and the prevention of non-conformance. The zero defects concept and error cause removal techniques are discussed to demonstrate how the individual employee's role can impact the improvement of quality at an industrial plant or commercial facility. 3 credit hours.

**READ 040 DEVELOPMENTAL READING I**

A course designed to raise the reading level of students reading on grades four through six by improving skills in vocabulary and comprehension. A modular approach following individual prescription is used. This class may not be used to satisfy the requirements of an Associate Degree. 1 credit hour.

**READ 041 DEVELOPMENTAL READING II**

A course designed to raise the reading level of students reading on grades seven through nine by improving skills in vocabulary and comprehension. A modular approach following individual prescription is used. This course may not be used to satisfy the requirements of an Associate Degree. 1 credit hour.

**READ 042 DEVELOPMENTAL READING III**

A course designed to raise the reading level of students reading on grades 10 through 12 by improving skills in vocabulary and comprehension. A modular approach following individual prescription is used. This course may not be used to satisfy the requirements of an Associate Degree. 1 credit hour.

**RLST 133 REAL ESTATE PRINCIPLES I**

A study of the fundamental principles of real estate. Emphasis is placed on property rights, property ownership, listing procedures, legal descriptions, real estate contracts, control and transfer of real properties, the professional ethics and activities of real estate brokers and the Real Estate License Law. Will also include a three-hour overview of Principles II. (Core Course). 3 credit hours.

**RLST 134 REAL ESTATE PRINCIPLES II**

A study of the fundamental principles and practices of real estate. Emphasis is placed on property management, real estate appraisal, real estate investment, closing the real estate transaction and three hours of Federal Fair Housing, Community Reinvestment Act and Equal Credit Opportunity Act. Also includes a three-hour review of Principles I. (Core Course). 3 credit hours.

**RLST 135 REAL ESTATE APPRAISAL**

Includes the central purposes and functions of an appraisal, social and economic determinant of value, appraisal case studies, cost, market data and income approaches to value estimates, final correlations, and reporting. (Core Course). 3 credit hours.

**RLST 136 REAL ESTATE MATH**

A review of mathematical logic and arithmetic skills including percentages, interest, time-valued money, depreciation, amortization, proration, and estimation of closing statements. (Core Course). 3 credit hours.

**RLST 138 REAL ESTATE SALES AND MARKETING**

Includes real estate professionalism and ethics, characteristics of successful salesmen, time management, psychology of marketing, listing procedure, advertising, negotiating and closing, financing, and the Deceptive Trade Practices-Consumer Protection Act. (Core Course). 3 credit hours.

**RLST 139 REAL ESTATE LAW - CONTRACTS**

Six classroom hours will review subjects required by of the Real Estate License Act with emphasis on general contract law requirements, and thorough coverage of the purpose, history and working process of the broker-lawyer committee. Detailed instruction and maximum hands-on exercises in the preparation of all promulgated contracts forms. (Core Course). PREREQUISITE: RLST 134. 3 credit hours.

**RLST 234 REAL ESTATE INVESTMENTS**

Financing, evaluation, and management of real estate investments. Real estate investment characteristics, techniques of investment and analysis, discount and nondiscounted investment criteria, time-valued money, leverage, tax shelters and consideration, investment risks, and applications to property tax. (Core Course). PREREQUISITE: RLST 134. 3 credit hours.

**RLST 235 REAL ESTATE FINANCE**

Includes monetary systems, primary and secondary money markets, sources of mortgage loans, federal government programs, loan applications, processes and procedures, closing costs, alternative financial instruments, equal credit opportunity acts, community reinvestment act, and state housing agency. (Core Course). PREREQUISITE: RLST 134 or Consent of Coordinator. 3 credit hours.

**RLST 236 REAL ESTATE PROPERTY MANAGEMENT**

Includes role of a property manager, landlord policies, operational guidelines, leases, lease negotiations, tenant relations, maintenance, reports, habitability laws, and the Fair Housing Act. (Core Course). 3 credit hours.

**RLST 237 REAL ESTATE LAW**

Includes the legal concepts of real estate, land description, real property rights and estates in land, contracts, conveyances, encumbrances, foreclosures, recording procedures, and evidence of titles. (Core Course). PREREQUISITE: RLST 134 or Consent of Coordinator. 3 credit hours.

**RLST 238 TITLE, ABSTRACT, ESCROW**

Legal and procedural aspects of handling titles, abstracts and escrows. Common office practices and closing procedures. (Related Course). PREREQUISITE: RLST 134 or Consent of Coordinator. 3 credit hours.

**RLST 240 COOPERATIVE EDUCATION I**

A comprehensive treatment of career related activities encountered in the student's area of specialization. Under supervision of the College and the broker, the student combines classroom learning with work experience. (Related Course). PREREQUISITE: Real Estate Sales License. 3 credit hours.

**RLST 241 REAL ESTATE COMMERCIAL**

A study of the commercial class of real estate, considering the developing, appraising marketing, contracting and financing functions related to business properties, including office building, shopping centers, stores, hotels and parking facilities. (Related Course). 3 credit hours.

**RLST 242 REAL ESTATE FINANCIAL ANALYSIS**

This course deals with financial applications useful to real estate professionals, real estate students, and serious real estate investors. The emphasis is on the use of the hand-held HP-12C calculator as a tool to analyze the many financial problem situations that agents encounter in the business. The topics covered in the course include loan calculation, net present value, internal rate of return, discounting, depreciation, programming techniques and more. (Related Course). PREREQUISITE: RLST 134; MUST have a HP-12C calculator or HP-18C. 3 credit hours.

**RLST 250 COOPERATIVE EDUCATION II**

This is the first semester of a comprehensive treatment of career related activities encountered in the student's area of specialization. Under supervision of the college and the broker/supervisor, the student combines classroom learning with work experience. (Related Course). 3 credit hours.

**RLST 251 REAL ESTATE BROKERAGE**

Study of the brokerage business including planning and organization, operational policies and procedures, personnel recruiting, selection and training, record keeping and control analysis of real estate firm, criteria for expansion, and a study of the law of agency. (Core Course). PREREQUISITE: RLST 134. 3 credit hours.

**RUSN 191 BEGINNING RUSSIAN I**

An introduction to the basic skills of speaking, reading, writing, and listening, designed for students with little or no previous language training. Also includes an introduction to selected aspects of Russian culture. Instruction is enhanced by the use of audio tapes, slides, computer software, and video cassettes. Lab Required. 3 credit hours.

**RUSN 192 BEGINNING RUSSIAN II**

A continuation of Russian 191. PREREQUISITE: RUSN 191 or equivalent. 3 credit hours.

**SBMT 121 SMALL BUSINESS MANAGEMENT**

Introduction to planning, establishing, and operating a small business; managing employees, records, and control systems; product and services marketing. 3 credit hours.

**SBMT 221 SMALL BUSINESS FINANCING**

Financial planning, use of financial data, forecasting financial needs, control of cash and other assets, capital budgeting, acquisition valuation, financial sources. PREREQUISITE: SBMT 121. 3 credit hours.

**SBMT 222 SMALL BUSINESS OPERATIONS**

Daily operations of small business. Decision-making techniques for production, services, resource management, replacement alternatives, and compliance requirements. PREREQUISITE: SBMT 121. Lab Required. 3 credit hours.

**SBMT 223 ENTREPRENEURSHIP**

Business idea development and implementation. A hands-on approach to business planning, feasibility studies, market analysis, and venture financing. Students should have completed SBMT 121 and SBMT 221 prior to this course. 3 credit hours.

**SBMT 240 COOPERATIVE EDUCATION I**

This course is designed to help the student integrate classroom knowledge with work experience. The student, the student's supervisor, and the instructor coordinate a set of goals for the student to accomplish. Requires the student to attend a 90-minute weekly seminar. PREREQUISITE: Second year standing in career program or consent of coordinator. 3 credit hours.

**SBMT 241 COOPERATIVE EDUCATION II**

This course is designed to help the student integrate classroom knowledge with work experience. The student, the student's supervisor, and the instructor coordinate a set of goals for the student to accomplish. Requires the student to attend a 90-minute weekly seminar. PREREQUISITE: SBMT 240. 3 credit hours.

**SOC 151 INTRODUCTION TO SOCIOLOGY**

An introduction to the social science concerned with humans and their relationships with members of the group and world in which they live. The following aspects of social life will be applied to the human experience: social forces, culture, socialization, deviance, sexuality, gender roles, race relations, and family. Lab Required. 3 credit hours.



**SOC 152 SOCIAL PROBLEMS**

An in-depth examination of selected social problems, their nature, cause, extent and effect upon society. Emphasis will be on the study of specific social problems of the local area. Lab Required. 3 credit hours.

**SOC 153 HUMAN SEXUALITY**

The course is to assist the student in the understanding of human sexuality including an appreciation of different approaches to sexuality as well as an awareness of one's own sexuality and its impact on adjustment to life. A student may register for this course as Psychology 153 or Sociology 153, but not for both. 3 credit hours.

**SOC 251 MARRIAGE AND FAMILY**

A functional and empathetic approach to understanding the structural, developmental, and institutional aspects of marriage and the family. Emphasis is on the American family with consideration given to courtship, mate selection, marriage and its dynamics, conflict, family violence, child-rearing patterns, the later years of marriage, divorce, and remarriage. Lab Required. 3 credit hours.

**SOC 252 SOCIAL PSYCHOLOGY**

A study of research and theory regarding social factors that influence human behavior. Focuses on attitudes, interpersonal attraction, conformity, communication, values, roles, and group processes. Application of these principles will be made to the human experience. A student may register for this course as Psychology or Sociology, but not both. PREREQUISITE: PSYC 151 or SOC 151. Lab Required. 3 credit hours.

**SOC 255 DRUG USE AND ABUSE**

A view of the individual, the substance, and the cultural context in which they interact. This course is designed to provide a basic understanding of the psychopharmacology of drugs used and abused in today's society. The emphasis of the study will be the major perspectives of drug use including legal, moral, public health, disease model, psychosocial, and socio-cultural. Students may enroll in either psychology or in sociology, but not in both. 3 credit hours.

**SPAN 153 SPANISH FOR NATIVE SPEAKERS I**

An introduction to the reading and writing of Spanish, designed for native speakers. Emphasis on grammar, vocabulary building, and composition. 3 credit hours.

**SPAN 154 SPANISH FOR NATIVE SPEAKERS II**

A continuation of Spanish 153. PREREQUISITE: SPAN 153 or equivalent. 3 credit hours.

**SPAN 191 BEGINNING SPANISH I**

An introduction to the four basic skills of speaking, reading, writing, and listening. Designed for students with little or no previous language training. Also includes an introduction to selected aspects of Hispanic civilization. Instruction enhanced by the use of slides, tapes, computer software, and video cassettes. Lab Required. 4 credit hours.

**SPAN 192 BEGINNING SPANISH II**

A continuation of Spanish 191. PREREQUISITE: SPAN 191. Lab Required. 4 credit hours.

**SPAN 291 INTERMEDIATE SPANISH I**

An intensive review of Spanish grammar followed by continued development of speaking, listening, reading, and writing skills. Instruction enhanced by the use of slides, tapes, and other audio-visual aids. PREREQUISITE: SPAN 192 or consent of discipline coordinator. Lab Required. 3 credit hours.

**SPAN 292 INTERMEDIATE SPANISH II**

A continuation of Spanish 291. Extensive written and oral work and extensive reading of literary works in Spanish of moderate difficulty. PREREQUISITE: SPAN 291. 3 credit hours.

**SPAN 293 CONVERSATIONAL SPANISH I**

Intensive practice in conversational Spanish. Required for majors. PREREQUISITE: SPAN 192 or consent of discipline coordinator. 1 Credit hour.

**SPAN 294 CONVERSATIONAL SPANISH II**

A continuation of Spanish 293. Required for majors. PREREQUISITE: SPAN 293 or equivalent. 1 credit hour.

**SPAN 295 SPANISH LITERATURE I**

A study of Spanish literature from its origin to 1700 through lectures, discussions, and reading of major literary works. Some attention will also be given to the historical context of each work. PREREQUISITE: SPAN 292. 3 credit hours.

**SPAN 296 SPANISH LITERATURE II**

A study of Spanish literature from 1700 to the present. Discussions, lectures, and readings of major literary works with some attention to historical contexts. A continuation of Spanish 295. PREREQUISITE: SPAN 295. 3 credit hours.

**SPCM 151 FUNDAMENTALS OF SPEECH COMMUNICATION**

Survey of basic factors affecting human interaction through communication; emphasis on the development of oral communication competencies; practice in delivering oral presentations. 3 credit hours.

**SPCM 152 PUBLIC SPEAKING**

Study and practice in the preparation and delivery of speeches, practice in different types of speeches and forms of delivery, evaluation of speakers and speeches. 3 credit hours.

**SPCM 191 ARGUMENTATION AND DEBATE**

Training in clear, logical, decision-making communication; analysis, exposition, reasoning and use of evidence; practice in effective delivery of arguments for and against various issues. 3 credit hours.

**SPCM 192 FORENSICS WORKSHOP**

Preparation and practice in debate and contest speaking activities; participation in intercollegiate and intersquad forensic activities; involvement in supervised research and the development of specialized contest speaking skills. Course may be repeated for credit. PREREQUISITE: SPCM 152 or consent of instructor. 1 credit hour.

**SPCM 193 SIGN LANGUAGE I**

Basic manual communication skills including the American Manual Alphabet; approximately 550 basic signs; the history and place of manual communication in society. Lab Required. 3 credit hours.

**SPCM 194 SIGN LANGUAGE II**

Continuation of Speech Communication 161, conversational manual communication, implementation of basic vocabulary learned in the beginning course, the psychology of deafness. PREREQUISITE: SPCM 193. Lab Required. 3 credit hours.

**SPCM 291 ORAL INTERPRETATION**

Introduction to the techniques of interpretation; preparation, analysis, reading of poetry, prose, and dramatic literature; analysis and criticism of a variety of literary forms. PREREQUISITE: SPCM 152. 3 credit hours.

**SPCM 292 LANGUAGE AND COMMUNICATION**

Appreciate of interdisciplinary approaches to the study of language; comprehension of viewpoints offered by various fields. PREREQUISITE: SPCM 151. 3 credit hours.

**SPCM 293 BUSINESS AND PROFESSIONAL SPEAKING**

Study of the importance of oral communication in business; practice in small group communication; study of the relationship of communication to organizational conflict, management, and international business; practice in conducting and participating in business interviews and presentations. 3 credit hours.

**SPCM 294 INTERPERSONAL COMMUNICATION**

The study of verbal and nonverbal communication as it primarily relates to persons in relationships. Emphasis in interpersonal contexts such as communication between the sexes, familial relationships, and intercultural communication. PREREQUISITE: SPCM 151 or Consent of Instructor. 3 credit hours.

**THEA 151 INTRODUCTION TO THE THEATRE**

Various aspects of theatre are surveyed. Emphasis is on types of plays, directing, acting, and technical production. Lab Required. 3 credit hours.

**THEA 191 REHEARSAL AND PERFORMANCE**

Laboratory class in which participation will include rehearsal and performance of a current theatrical production of the College. Course may be repeated for credit. 1 credit hour.

**THEA 192 VOICE AND DICTION**

Intensive work is provided in the improvement of voice through exercises to develop resonance, range flexibility, intensity, control of voice. 3 credit hours.

**THEA 193 ACTING I**

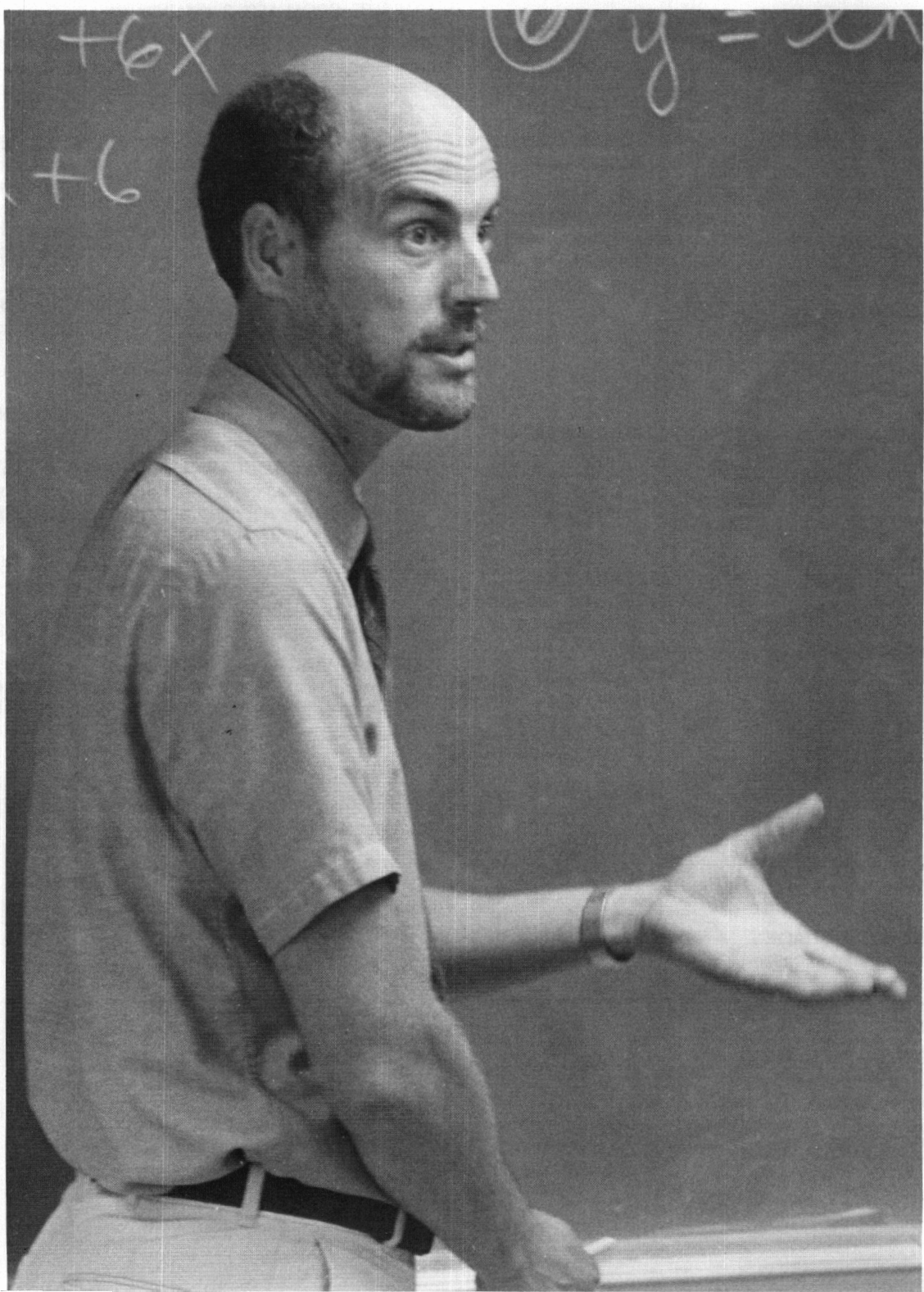
Introduction to the art of acting. Body control, voice, pantomime, interpretation, characterization and stage movement are included. Lab Required. 3 credit hours.

**THEA 194 ACTING II**

A continuation of Theatre 193. Emphasis is on complex characterization, ensemble acting, stylized acting and acting in period plays. PREREQUISITE: Theatre 193. Lab Required. 3 credit hours.



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## OLDER WORKER PROGRAM

In order to ensure the active participation of local private sector employers, union officials, community leaders, and social service agencies in addressing the employment and training needs of older workers OWP administrators have established an advisory committee. The committee assists with program planning and oversees activities related to the implementation of the program.

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The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This ensures transparency and allows for easy verification of the data.

In the second section, the author details the various methods used to collect and analyze the data. This includes both manual and automated processes. The goal is to ensure that the data is both reliable and representative of the overall population being studied.

The third section focuses on the results of the analysis. It shows that there is a clear trend in the data, which is consistent with the initial hypothesis. This finding is significant as it provides strong evidence for the theory being tested.

Finally, the document concludes with a summary of the findings and a discussion of their implications. It suggests that the results could have important applications in the field of research, and that further studies should be conducted to explore these findings in more depth.