Collin County Community College (CCCC) is an equal opportunity institution and does not discriminate on the basis of race, color, religion, sex, national origin, age, disability or veteran status.

Collin County Community College complies with The Drug-Free Schools and Communities Act Amendments of 1989 (Public Law 101-226). For more information, contact the Dean of Students or the Director of Human Resources.

Send address changes to:
CCCC
Public Information Office
2800 E. Spring Creek Pkwy.
Plano, Texas 75074

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 Drive, P.O. Box 8001, McKinney, Texas 75069-8001, (214) 548-6790 (Central Park Campus—McKinney, Texas) or (214) 881-5790 (Spring Creek Campus—Plano, Texas).

Accreditation Status
Collin County Community College is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award associate degrees and certificates.
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**ACADEMIC CALENDAR**

**FALL 1992**

- Deadline for Graduation Application for Fall 1992
- TEX Registration (Summer 1992)
- Regular Registration
- Late Registration
- First Day of Class
- Official Census Date
- Labor Day Holiday (Campuses Closed)
- TEX Registration (Spring 1993)

**Last Day to Withdraw**
- Thanksgiving Holiday (Campuses Closed)
- Last Day to Withdraw from a Developmental Course
- Deadline for Graduation Application for Spring 1993
- Final Exams/Textbook Buyback
- Last Day of Semester
- Winter Break (Campuses Closed)

**SPRING 1993**

- TEX Registration (Spring 1993)
- Regular Registration
- Late Registration
- First Day of Class
- Official Census Date
- No Classes — Staff Development Day
- Spring Break (Student Holiday)
- Spring Break (Campuses Closed)
- TEX Registration (Summer 1993)

**Last Day to Withdraw**
- Spring Holiday (Campuses Closed)
- Last Day to Withdraw from a Developmental Course
- Deadline for Graduation Application for Summer 1993
- Final Exams/Textbook Buyback
- Last Day of Semester
- Commencement
- Telephone Express Registration (TEX) Summer 1993

**SUMMER 1993**

- TEX Registration
- Regular Registration
- Summer I and III: Late Registration
- Memorial Day Holiday (Campuses Closed)
- First Day of Class
- TEX Registration (Summer 1993)
- Last Day to Withdraw
- Independence Day Holiday (Campuses Closed)
- Summer I: Official Census Date
- Summer III: Official Census Date
- Summer I: Last Day to Withdraw from a Developmental Course
- Summer I: Last Day of Semester
- Summer I: Final Exams/Textbook Buyback
- Summer III: Last Day To Withdraw
- Summer III: Last Day to Withdraw from a Developmental Course
- Summer II: Last Day to Withdraw from a Developmental Course
- Summer III: Last Day to Withdraw from a Developmental Course
- Summer II: First Day of Class
- Summer II: Official Census Date
- Summer III: Last Day to Withdraw
- Summer II: Last Day to Withdraw
- Summer II: Final Exams/Textbook Buyback
- Summer II & III: Last Day of Semester
- Summer III: Final Exams/Textbook Buyback
- Summer III: Final Exams/Textbook Buyback
- Summer III: Final Exams/Textbook Buyback

**1993**

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<tr>
<td>TEX Registration</td>
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<tr>
<td>Regular Registration</td>
<td>May 17–23</td>
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<tr>
<td>Summer I: Final Exams/Textbook Buyback</td>
<td>May 1</td>
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<tr>
<td>Summer II: First Day of Class</td>
<td>July 5</td>
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<tr>
<td>Summer III: Last Day To Withdraw</td>
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<td>Summer III: Last Day to Withdraw from a Developmental Course</td>
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<td>Summer II: Last Day To Withdraw</td>
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<td>Summer II: Last Day to Withdraw from a Developmental Course</td>
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<td>Summer III: Final Exams/Textbook Buyback</td>
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<td>Summer II: Final Exams/Textbook Buyback</td>
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<td>Summer II &amp; III: Last Day of Semester</td>
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<tr>
<td>Summer II &amp; III: Final Exams/Textbook Buyback</td>
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# CCCC Office and Phone Directory

## Central Park Campus

<table>
<thead>
<tr>
<th>Office</th>
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<tbody>
<tr>
<td>General Information</td>
<td>548-6790</td>
<td>A111</td>
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<tr>
<td>Administrative Services</td>
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<tr>
<td>Admissions</td>
<td>548-6710</td>
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<tr>
<td>Advising</td>
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<td>A108</td>
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<tr>
<td>Arts and Humanities Division</td>
<td>548-6830</td>
<td>A206</td>
</tr>
<tr>
<td>Articulation and Transfer</td>
<td>548-6770</td>
<td>A108</td>
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<tr>
<td>Bookstore</td>
<td>548-6680</td>
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<tr>
<td>Business and Engineering Division</td>
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<td>A206</td>
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<tr>
<td>Business Office</td>
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<tr>
<td>Enterprise</td>
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<td>A354</td>
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<td>Financial Aid</td>
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<td>A111</td>
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<tr>
<td>Future Shop</td>
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<tr>
<td>Human Resources</td>
<td>548-6660</td>
<td>B216</td>
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<tr>
<td>Institutional Advancement</td>
<td>548-6661</td>
<td>A129</td>
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<tr>
<td>Library/Learning Resources Center</td>
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<tr>
<td>Physical Plant/Security</td>
<td>548-6690</td>
<td>A116</td>
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<tr>
<td>President's Office</td>
<td>548-6600</td>
<td>A130</td>
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<td>Public Information Office</td>
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## Spring Creek Campus

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<td>Administrative Services</td>
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<tr>
<td>Admissions</td>
<td>881-5710</td>
<td>G103</td>
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<tr>
<td>Advising</td>
<td>881-5778</td>
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<tr>
<td>Arts and Humanities Division</td>
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<td>Articulation and Transfer</td>
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<td>Bookstore</td>
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<tr>
<td>Financial Aid</td>
<td>881-5850</td>
<td>F102</td>
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<tr>
<td>Future Shop</td>
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<td>G103</td>
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<td>Human Resources</td>
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<td>Institutional Advancement</td>
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<td>Library/Learning Resources Center</td>
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<td>Physical Plant/Security</td>
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<td>President's Office</td>
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<td>K020</td>
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<tr>
<td>Public Information Office</td>
<td>881-5600</td>
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<tr>
<td>Registrar's Office</td>
<td>881-5610</td>
<td>B193</td>
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<tr>
<td>Science and Health Division</td>
<td>881-5613</td>
<td>K119</td>
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<tr>
<td>Social Science Division</td>
<td>881-5144</td>
<td>G103</td>
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<td>Project SPARK</td>
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<td>Student Activities</td>
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<td>Student Development Center</td>
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<tr>
<td>Testing Center</td>
<td>881-5788</td>
<td>F129</td>
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<tr>
<td>Vice President of Instruction</td>
<td>881-5700</td>
<td>G103</td>
</tr>
<tr>
<td>For offices not listed</td>
<td>881-5922</td>
<td>5232</td>
</tr>
</tbody>
</table>

Note: Areas without a room number on either Central Park Campus or Spring Creek Campus have offices only on the campus listed.
Collin County Community College is governed by a nine-member Board of Trustees. Members are elected at-large by Collin County residents for six-year terms of office. Trustees are responsible for setting policy for the college and serve without compensation. Regular board meetings are held each month and are open to the public.

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 lifelong learning through quality and excellence in all educational areas including transfer/parallel, vocational, technical, developmental, a general education core and continuing education.

Philosophy and Purpose
CCCC believes 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, ethical, healthy and sensitive lives; recognize, accept and encourage the celebration of differences in personal, racial, ethnic and cultural backgrounds; relate to others openly and responsibly; generate the motivation to continue learning throughout life; 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; acquire the skills necessary for earning a living in a way that will promote the general welfare; and prepare for a beneficial use of leisure time.
GOALS
Collin County Community College exists to serve the educational needs of the citizens of Collin County and has established the following goals to meet these needs.

TRANSFER/PARALLEL EDUCATION
Students completing the two-year associate of arts or associate of science degrees are able to transfer with junior class standing to any college or university in the United States.

VOCATIONAL/TECHNICAL EDUCATION
Students completing vocational/technical programs qualify for employment in their fields of study.

DEVELOPMENTAL EDUCATION
Students are provided with opportunities for developing the necessary skills to successfully complete pre-baccalaureate/technical or general studies programs.

GENERAL EDUCATION CORE
Through a broad spectrum of disciplines, students are exposed to concepts, values and philosophies which lead to the development of skills that are essential to functioning effectively in a democratic society.

CONTINUING EDUCATION
Personal and professional development of the citizens of the county and a philosophy of lifelong education are promoted.

PERSONALIZED STUDIES
Individually-tailored programs are designed for students with unique interests and needs.

INSTRUCTIONAL SUPPORT SERVICES
Library/media facilities, resource centers, laboratories, alternative learning centers and qualified staff are provided to implement the college's programs and meet student, state and community needs.

STUDENT DEVELOPMENT PROGRAMS
These programs provide professional assistance to all students in establishing and accomplishing educational and career goals.

CO-CURRICULAR
Experiences are provided which complement instructional programs of the college as well as promote the personal and professional development of the student body.

ECONOMIC AND COMMUNITY DEVELOPMENT
The college is to be a major contributor to the economic growth and development of Collin County.
Collin County Community College District was authorized on April 6, 1985. The first classes were offered in the fall of 1985 in high schools throughout the county. Central Park Campus opened its doors to students in January 1986. This 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. Spring Creek Campus, located at the juncture of East Spring Creek Parkway and Jupiter Road in east Plano, is a 380,000 square-foot facility housing a physical education complex, a conference center, a theatre, a student lounge, a Learning Resources Center and a food service area, in addition to classroom, laboratory and office space.

Day and evening classes are offered at both Central Park Campus and Spring Creek Campus as well as other locations throughout the county. The college does not limit the use of its facilities to students only. All Collin County residents are encouraged to use the facilities at both campuses.

In 1990, the college purchased 125 acres of land in the southwest part of Collin County for the construction of a third campus site, Preston Ridge Campus.
ADMISSIONS AND REGISTRATION

ADMISSIONS PROCEDURES
Collin County Community College operates under an “open door” admissions policy. Students who are 18 years of age or older with a high school diploma or equivalent are eligible for admission. Other students may be admitted under special admissions requirements that follow. The college reserves the right to guide the placement of students through assessment, which may include interviews and a review of past academic achievement.

Registration options are enhanced and delays may be avoided by completing all admissions requirements in advance of registration.

NEW STUDENT ADMISSIONS
New students should submit to the Admissions Office:
1. An application for admissions. This application may be submitted prior to, or at the time of, registration.
2. An official transcript from their most recent high school or college attended or a copy of their GED scores. 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 and/or ACT submit their scores.
4. All degree-seeking students are encouraged to complete the reading, writing and math assessments. Enrollment in College Success Skills (HDEV 030) is highly recommended for all first-time college students.

Admission to the college does not guarantee admission to a specific program of study. Programs in nursing, emergency medical technology, respiratory care and child development have additional admissions criteria. Contact the division office for information on program requirements or restrictions.

In its admissions policies and practices, CCCC does not discriminate on the basis of race, color, religion, sex, national origin, age, disability or veteran status in accordance with federal law.

STUDENTS WITHOUT HIGH SCHOOL DIPLOMA OR GED
Students without a high school diploma or equivalent should contact the Admissions Office at 548-6710 or 881-5710 for requirements.

RETURNING STUDENT ADMISSIONS
Former CCCC students who have not been enrolled during the preceding two regular (16-week) semesters will need to reapply for admission. An application for readmission and an official transcript from any colleges or universities attended since their last enrollment at CCCC are required.

For more information on residency see page 12.

TRANSFER STUDENT ADMISSIONS
Transfer students who are in good standing academically and otherwise at the last institution of higher education attended are eligible for admission. An application for admission and their most recent college transcript are required.

Students who transfer to CCCC from other institutions of higher education will be awarded credit according to the conditions that follow.
1. Credit must have been earned at a regionally accredited institution of higher education. Foreign transcripts will not be evaluated at CCCC.
2. An official transcript from all institutions of higher education attended by the student must be on file at CCCC.
3. Official course descriptions from the catalog under which the student attended are required for evaluation.
4. Credit for courses equivalent to those listed in the catalog will be accepted if the courses are required on the student’s degree plan for graduation. Other credits may be accepted in lieu of elective courses depending on the student’s program of study.
5. An official evaluation may be requested at any time, but it will be completed and recorded on the CCCC transcript only after the student has completed six semester hours at CCCC.
6. Official evaluations are conducted by the degree plan coordinator. Final approval rests with the division dean.
7. Grades of “D” are accepted from other institutions; however, a cumulative GPA of 2.0 is required for graduation. Grades of “F” and “I” do not transfer.
8. Waivers for physical education requirements may be granted for medical reasons. A written statement from a physician and two additional hours of electives are required. Credit for HPED courses is awarded for military training upon receipt of a student’s DD214 (Honorable Discharge).
9. While there is no limit on the number of hours that can be transferred into CCCC from other institutions, there is an 18 credit hour residency requirement to earn an associate degree from CCCC. Students obtaining certificates containing 18 hours or less must complete course work in residence at CCCC. Petitions to transfer credits into certificate programs containing 18 hours or less may be made to the division dean through the degree plan coordinator.

10. Time limits and minimum grade requirements may be imposed for transfer work into select programs. Contact the program coordinator or division dean for details.

**Concurrent Enrollment/Project First Step**

High school students may, with permission of the appropriate high school officials, be concurrently enrolled in high school and college courses.

Requirements for admission include a letter of recommendation from the high school counselor or other school official, an official high school transcript reflecting work completed to date, parental permission, assessment, orientation and/or an admission interview. Instructor approval may be required. All students within the age of compulsory secondary attendance who are admitted must maintain at least a 2.0 GPA (no grade below a “C”) and will be enrolled provisionally on a semester by semester basis. Credit will be awarded according to state, local and institutional policies in effect at the time of enrollment. Contact the Admissions Office for more information.

**Students Born Outside the United States**

Students on temporary visas or holding permanent residence cards may be eligible for admission. To verify residency status, students are required to present their visa or permanent residence card with their application.

**International Student Admissions/F-1, F-2 Visas**

All international students must provide the Admissions Office with the following:

1. Application for admission;
2. Official international TOEFL score of 525 or above;
3. A completed statement of financial support (available from the Admissions Office);
4. Official transcripts (school records) and/or test results reflecting completion of twelve years of primary and secondary education.

Official transcripts (school records) from all colleges and universities previously attended. Collin County Community College does not evaluate transcripts or award credit earned at foreign institutions, however, students may be eligible for credit through examination at the college; and

5. A valid visa or passport upon arrival.

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. It is recommended that all admissions materials be received 30 days prior to regular registration. Admission and continued enrollment are provisional. The college reserves the right to limit the number of hours or specify courses in which a student on probation or suspension may enroll. Probationary status may be imposed while at CCCC. See the section on satisfactory progress or contact the Admissions Office for additional information.

**Texas Academic Skills Program (TASP)**

In an effort to ensure that all students pursuing higher education have certain basic skills, the State of Texas has enacted legislation which requires 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 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 nondegree students prior to the accumulation of nine or more (college) credit hours or the equivalent,” and “any transfer student with fewer than 60 semester credit hours, or the equivalent who has not previously taken the tests.” All students seeking teacher certification will be required to take TASP. **Performance on TASP will not be used as a condition for 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 who has not previously taken the tests.” 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).* Students may continue to take and accumulate lower division courses past the 60 hour limit, but will be unable to graduate with a degree or eligible Certificate until they have passed the TASP test. Until TASP is successfully completed, continuous remediation is mandated. New students will be required to furnish the college with necessary proof regarding TASP status. The test fee will be paid by the student.

**Note: For specific current information about TASP and CCC’s testing, contact the director of testing. Please note that, in addition to the state test, the college requires new students to be assessed in reading, writing and math for diagnostic and course placement purposes. Developmental classes and tutorial assistance are available for students who need or want this support. Transfer students must provide documentation of TASP status. Documentation may be in the form of TASP score reports, official transcripts or other score reports.**

Students requesting exemption from TASP should provide the Admissions Office with documentation of receipt of at least three hours of college-level credit earned prior to September 1, 1989. Documentation may include:

- an official transcript (college, university, trade, foreign university, or military);
- an official score report (AP, CLEP, DANTES).

**Orientation**

Orientation provides an overview of the policies, procedures, services and student activities at CCC. Although all first-time college students are strongly encouraged to attend orientation upon completion of local assessments and prior to their initial enrollment, transfer and returning students not familiar with the college would also benefit from the program. The orientation schedule can be found in the class schedule.

**Registration Procedures**

**Telephone Express Registration (TEX)**

TEX provides students with an opportunity to enroll early in courses for the subsequent semester. This process is designed for students who have completed admissions and assessment requirements and met with their assigned academic adviser. TEX registration enables students to have earlier course selection, deferred tuition payment and more comprehensive advisement. See the current Schedule of Classes for a listing of dates, times and complete instructions regarding TEX.

**Regular Registration**

Regular registration is scheduled prior to the beginning of classes with admissions, assessment and advising services available at that time. Comprehensive admissions, assessment and advising programs are more easily obtained prior to regular registration and students are encouraged to complete these processes early. Tuition and fees are due at the time of registration. See the current Schedule of Classes for a listing of regular registration times and locations.
**Late Registration**

Students who wish to register late should do so within the published late registration schedule. A late registration fee will be assessed. This fee is not assessed to students who have completed registration during Telephone Express or regular registration periods and are making schedule changes.

**Registration for Continuing Education Classes**

Each semester CCCC offers continuing education classes to community members through the Continuing Education Division. Registration for these classes can be done in four ways:

1. **Walk-in registration**—Available at both campuses, times are listed in the current Continuing Education Schedule of Classes.

2. **Phone-in registration**—In McKinney call (214) 548-6855 and in Plano call (214) 881-5747. Times and dates are listed in the current schedule of classes.

3. **Mail-in registration**—Send your registration information to: Registration, Collin County Community College, 2800 E. Spring Creek Pkwy., Plano, Texas 75074. See the current schedule of classes for registration deadlines.

4. **Fax-in registration**—Check current Continuing Education Schedule of Classes for fax availability.

See page 36 for more information on continuing education.

**Residence Requirements**

To be considered a Texas resident, students must clearly establish residence in Texas for the 12 months preceding their enrollment. Documentation of Texas residency may be required as shown in Figure 1.

- 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 is an individual who has not resided in Texas for 12 months preceding registration or whose permanent resident card is less than 12 months old. Most students on temporary visas will also be classified as non-residents for tuition purposes.

The responsibility for registering under the proper residency 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 CCCC. Changes of address, name, etc. must be reported promptly to the Registrar’s Office. This enables you to receive registration and other information from various college departments and programs. **Changes of address affecting residency should promptly be reported to the Admissions Office.**

Students who are dependent on a parent’s residence status must also submit the top portion of the Federal Income Tax form for the current and preceding years.

**Ad Valorem Waivers**

Students who have not lived in Texas for the 12 months preceding registration, but who own property in Collin County, may be eligible for an ad valorem waiver. A copy of one’s deed is required for verification. If this waiver is based on a student’s parents’ property ownership, a copy of their most recent Federal Income Tax form showing the student as a dependent is also required. Once Texas residency has been established (12 months), the student should submit the necessary documentation listed in Figure 1 below, to the Admissions Office. At that point, ad valorem waivers will no longer be necessary. **Property owners on most types of temporary visas are not eligible for the ad valorem waiver.**

**Documents to Support Residency**

Documentation of Texas residency may be required if the information given on the enrollment application is not adequate to prove residency. **If so,** the following documents may be used in meeting residency requirements.

- Permanent Texas driver’s license (at least one year old)
- Texas high school transcript (if enrolled within the last 12 months)
- Letter of employment on company letterhead (verifying one year of employment)
- Texas voter’s registration card (at least one year old)
- Lease agreement covering the past 12 months
- Collin County property tax statements
**STUDENT ID CARDS**

All credit students at Collin County Community College are required to have a student identification card to use the services provided by the Bookstores, Fitness Centers, Future Shop, Registrar's Office, Student Activities Office, Student Employment Office, and Testing Center. Each student will have one ID card to use throughout his or her enrollment at CCCC, and must be issued a validation sticker (free of charge) at the beginning of each semester in which they are enrolled.

A $2 non-refundable fee is assessed with other registration fees for each student who has not previously purchased an ID card. First-time cards and validation stickers are issued during registration periods to all new and returning students. Replacement cards will be issued on an as needed basis at a cost of $2 each for those whose cards have been lost or stolen, who have had a name change or who would prefer a new photo.

Students should go to the Student Activities Office at either campus with a valid photo ID to have their student ID cards and/or validation stickers issued.

Student ID cards are also valuable in the community. Students are eligible to receive discounts at participating restaurants, movie theaters and businesses as well as lower admission rates to some CCCC programs and events.

**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 fees by residency classification.

---

**TUITION SCHEDULE**

<table>
<thead>
<tr>
<th>Credit Hours</th>
<th>In-County ($18 per credit hour)</th>
<th>Out-of-County ($25 per credit hour)</th>
<th>Out-of-State ($60 per credit hour)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$28</td>
<td>$28</td>
<td>$203</td>
</tr>
<tr>
<td>2</td>
<td>$36</td>
<td>$50</td>
<td>$206</td>
</tr>
<tr>
<td>3</td>
<td>$54</td>
<td>$75</td>
<td>$209</td>
</tr>
<tr>
<td>4</td>
<td>$72</td>
<td>$100</td>
<td>$240</td>
</tr>
<tr>
<td>5</td>
<td>$90</td>
<td>$125</td>
<td>$300</td>
</tr>
<tr>
<td>6</td>
<td>$108</td>
<td>$150</td>
<td>$360</td>
</tr>
<tr>
<td>7</td>
<td>$126</td>
<td>$175</td>
<td>$420</td>
</tr>
<tr>
<td>8</td>
<td>$144</td>
<td>$200</td>
<td>$480</td>
</tr>
<tr>
<td>9</td>
<td>$162</td>
<td>$225</td>
<td>$540</td>
</tr>
<tr>
<td>10</td>
<td>$180</td>
<td>$250</td>
<td>$600</td>
</tr>
<tr>
<td>11</td>
<td>$198</td>
<td>$275</td>
<td>$660</td>
</tr>
<tr>
<td>12</td>
<td>$216</td>
<td>$300</td>
<td>$720</td>
</tr>
<tr>
<td>13</td>
<td>$234</td>
<td>$325</td>
<td>$780</td>
</tr>
<tr>
<td>14</td>
<td>$252</td>
<td>$350</td>
<td>$840</td>
</tr>
<tr>
<td>15</td>
<td>$270</td>
<td>$375</td>
<td>$900</td>
</tr>
<tr>
<td>16</td>
<td>$288</td>
<td>$400</td>
<td>$960</td>
</tr>
<tr>
<td>17</td>
<td>$306</td>
<td>$425</td>
<td>$1,020</td>
</tr>
<tr>
<td>18</td>
<td>$324</td>
<td>$450</td>
<td>$1,080</td>
</tr>
<tr>
<td>19</td>
<td>$342</td>
<td>$475</td>
<td>$1,140</td>
</tr>
<tr>
<td>20</td>
<td>$360</td>
<td>$500</td>
<td>$1,200</td>
</tr>
<tr>
<td>21</td>
<td>$378</td>
<td>$525</td>
<td>$1,260</td>
</tr>
</tbody>
</table>

*minimum tuition required per semester by law. Note: a $3 per credit hour building use fee is included in the above figures.*

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

Special fees and charges may be added as necessary and as approved by the board of trustees.

- Student ID fee: $2 (initial card, replacement cards cost an additional $2 each)**
- Laboratory fee: $0 to $24 per lab***
- Audit fee: $25 per course** plus tuition and any other applicable fees
- Late registration fee: $10**
- Transcript fee: $2 per official copy
- Returned check fee: $10
- Graduation fee: $30**
- Certification fee: $5**

**non-refundable**

***some physical education classes have higher lab fees

Note: firemen and honor graduate students who qualify for a tuition waiver are required to pay the $3 per credit hour building use fee charged to all students.
**BOOKSTORE**

The bookstore is an auxiliary enterprise of CCC. Textbooks are selected by the faculty and ordered through the bookstore. Book prices are established by the book publishers 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 whenever available.

**TEXTBOOK & LANGUAGE TAPE REFUNDS**

Students who change courses or select the wrong books and language tapes may return them for a refund under the following conditions.

1. Books or language tapes are returnable during the first 10 class days of the fall and spring semesters, and the first five days of the summer semesters.

2. Students must have their original cash register receipt to receive a refund.

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 and cassette tapes in shrink wrap (plastic or vinyl packaging) must be returned unopened in the original package. Books cannot be accepted if the shrink wrap has been removed.

5. Defective books missing pages, etc. will be replaced at no charge during the semester in which they were purchased.

**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.

**TEXTBOOK BUYBACK**

Books are bought back every day at their current market value. Fifty percent of the original purchase price, subject to the following conditions, will be paid during final exams of each semester:

1. Books must be in clean, salable condition.

2. Books must be required for use by the college during the next semester.


4. Workbooks, lab manuals, study guides, mass-market paperbacks, books with tom covers, excessive marketing, water damage, books with perforated pages and books containing diskettes cannot be bought back.

5. Books cannot be bought back if the store is overstocked, or if needs for the following semester have been filled.

The faculty, not the bookstore, decide whether or not each textbook will be used again. Unless an instructor tells the bookstore he/she will use that title again, the bookstore must assume 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 CCC are not taught every semester and students may wish to sell their books when that course is offered again, provided the faculty member requires the same books.

**CHECK CASHING**

Checks may be cashed in the amount of $10 with or without a purchase. MasterCard, VISA, checks and cash are accepted as payment. Students must show their CCC student ID card to write or cash checks and to make credit card purchases.
ACADEMIC POLICIES

Adding/Dropping Courses

Any change in a student’s class schedule is accomplished by completing the official Add/Drop Form obtained from the Registrar’s Office or by calling Telephone Express. Students already registered may add classes prior to the third class hour. Adding and dropping should be student-initiated. Students may drop a college-level course with a grade of “W” through the end of the 12th class week during a regular (16-week) term, through the end of the fourth week in a short (five-week) summer term, and through the end of the seventh week in a long (10-week) summer term.

Students may drop a developmental course through the end of the 14th week during regular (16-week) terms, the end of the fourth week during short (five-week) summer terms, and the end of the ninth week during a long (10-week) summer term, unless they are required by TASP to be in remediation. Students who are enrolled in a developmental course for TASP purposes may not drop their only developmental course unless they completely withdraw from the college. For information, see the dean of developmental education.

International students and students receiving financial aid or veteran’s assistance should see the appropriate college official before dropping or withdrawing.

See “Withdrawal from the College,” page 22, for exact procedures.

Students should contact their professors prior to initiating a drop or withdrawal. A student who discontinues class attendance and does not officially drop the course will receive a performance grade for the course.

AUDIT

Registration to audit a course 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 non-refundable audit fee is assessed in addition to tuition (see page 13).

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. Foreign language classes may not be audited.

CLASS ATTENDANCE

Regular classroom attendance is expected of all students. Class attendance requirements are determined by professors, therefore, a student should ascertain each professor’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 college 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 college policies affecting veterans.

RELIGIOUS HOLY DAYS

In accordance with Section 51.911 of the Texas Education Code, CCCC will 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 are required to file a written request with each professor 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 Registrar’s Office.
**Grading System**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Definition</th>
<th>Grade Points per Semester Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent</td>
<td>4</td>
</tr>
<tr>
<td>B</td>
<td>Above Average</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
<td>Average</td>
<td>2</td>
</tr>
<tr>
<td>D</td>
<td>Below Average</td>
<td>1</td>
</tr>
<tr>
<td>F</td>
<td>Failure</td>
<td>0</td>
</tr>
<tr>
<td>W</td>
<td>Withdrawal</td>
<td>0</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete</td>
<td>0</td>
</tr>
<tr>
<td>TP</td>
<td>In-Progress</td>
<td>0</td>
</tr>
<tr>
<td>AU</td>
<td>Audit</td>
<td>0</td>
</tr>
<tr>
<td>CR</td>
<td>Credit</td>
<td>0</td>
</tr>
<tr>
<td>Z</td>
<td>No grade reported by professor</td>
<td>0</td>
</tr>
</tbody>
</table>

At the completion of each term, the college will determine the student's semester and cumulative grade point averages which will be recorded on a grade report to be received by the student. Grades earned in developmental education courses are not averaged into the cumulative GPA.

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**Calculating Grade Point Average (GPA)**

Grade points represent the translation of letter grades into numerical values. The grades that have grade point values are:

- A: 4.0 grade points per credit hour
- B: 3.0 grade points per credit hour
- C: 2.0 grade points per credit hour
- D: 1.0 grade points per credit hour
- F: 0.0 grade points per credit hour

The cumulative GPA is the result of dividing the total of all quality grade points earned by the total number of quality hours/credits attempted (excluding "I", "P", "TP", and developmental course work). An example of how to compute the grade point average is provided below.

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Credits</th>
<th>Grade</th>
<th>Grade Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 152</td>
<td>3</td>
<td>C</td>
<td>3 credits $\times$ 2 points = 6</td>
</tr>
<tr>
<td>BIOL 151</td>
<td>4</td>
<td>B</td>
<td>4 credits $\times$ 3 points = 12</td>
</tr>
<tr>
<td>PSYC 151</td>
<td>3</td>
<td>F</td>
<td>3 credits $\times$ 0 points = 0</td>
</tr>
<tr>
<td>MATH 010*</td>
<td>3</td>
<td>A</td>
<td>1 credit $\times$ 4 points = 4</td>
</tr>
<tr>
<td>HPED 130</td>
<td>1</td>
<td>A</td>
<td>1 credit $\times$ 4 points = 4</td>
</tr>
</tbody>
</table>

Total = 22

Quality points earned: $\frac{22}{11} = 2.0$ GPA

*Since no quality grade points or hours credits are given for "I," "IP," "TP," or developmental course work, the credit for MATH 010 are not used in computing the GPA.

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**High Academic Achievement**

All students who complete 12 or more quality semester hours during a regular (16-week) term with a 3.5 GPA or above qualify for the Dean’s List.

All students who complete 12 or more quality semester hours during a regular (16-week) term with a 4.0 GPA qualify for the President’s List.
**Graduation**

The college offers associate of arts, associate of science and associate of applied science degrees, and certificate programs. Students who plan to graduate from CCCC should file a degree plan with the degree plan coordinator prior to the completion of 30 credit hours. 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 in the degree plan of 2.0 is a candidate for graduation.

*Note: transfer credits used toward graduation will be calculated in the cumulative grade point average.*

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

*Note: transfer credits used toward graduation will affect graduation honors.*

<table>
<thead>
<tr>
<th>Grade Point Average</th>
<th>Honor</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0</td>
<td>Summa cum laude</td>
</tr>
<tr>
<td>3.75-3.99</td>
<td>Magna cum laude</td>
</tr>
<tr>
<td>3.5-3.74</td>
<td>Cum laude</td>
</tr>
</tbody>
</table>

**Associate Degree**

Students may earn an associate of arts degree or an associate of science degree. Students may also earn an associate of applied science degree and Certificates. See pages 45–97 for specific degree plans. To graduate, students must complete a minimum of 18 credit hours at CCCC and satisfy all other degree requirements. Non-traditional credit will not meet this residency requirement. Candidates for an associate degree must submit an application for graduation and pay the assessed graduation fee no later than the deadline established for that semester.

Students with less than six hours remaining toward completion of an associate degree may participate in graduation ceremonies provided they are pre-registered for the appropriate summer courses. Students planning to complete graduation requirements during a summer session and participate in graduation ceremonies must file for graduation and pay any necessary fees by the preceding spring semester deadline.

**Certificate Program**

Students obtaining certificates containing 18 hours or less must complete course work in residence at CCCC. Petitions for transfer credits into certificate programs containing 18 hours or less may be made to the division dean through the degree plan coordinator. Certificates will be awarded upon completion of program requirements. Fees are due prior to awarding the certificate. Students earning certificates may participate in commencement ceremonies, after paying the graduation fee.
INCOMPLETE GRADES/CONTRACTS

Incomplete contracts must be agreed to and signed by the involved student, professor and appropriate division dean at the close of the term 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. Requirements of incomplete contracts must be completed as specified in the contract, but by no later than the end of the following 16-week term. The contract may state that if the work is not completed as specified, the grade will be changed to a performance grade based on the quality and amount of work completed. Failure to remove an "I" as contracted will result in an "I" being placed on the permanent record.

NON-TRADITIONAL COLLEGE CREDIT (NTCC)

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 of NTCC may be counted toward a degree.

For additional information regarding CLEP examinations, tests given by college professors, advanced placement tests, the Customized Articulation Program and armed forces credit, contact the director of testing.

COLLEGE-LEVEL EXAMINATION PROGRAM (CLEP)

Most public supported colleges and universities have agreed to accept as transfer credits all CLEP credit granted by regionally 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. CCCC uses these criteria for CLEP Subject Examination evaluation:

a) CLEP credit shall be recorded on 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) Credit is awarded for CLEP Subject Examination scores at or above the 70th percentile. Official score reports should be sent to the director of testing.

d) A $10 non-refundable fee will be charged for each CLEP examination.

CREDIT BY EXAM (TESTS GIVEN BY COLLEGE PROFESSORS)

Credit for some courses may be granted upon successful completion of a comprehensive examination over the content of the course. A non-refundable fee is charged for each course examination. 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 THE COLLEGE BOARD (AP)

Beginning freshmen who have received college-level training in secondary schools and who present scores of three, four or five on the appropriate Advanced Placement Examination will be granted, on request, placement and credit for comparable courses at the college following the completion of six semester hours at the college. For more information contact the director of testing.
Through formalized contracts, CCC and the Allen, Dallas, Denton, Lewisville, McKinney and Plano independent school districts have articulation agreements which allow students enrolled in designated high school vocational/technical programs to receive, under certain conditions, college credit for courses completed in high school. To participate students should obtain a recommendation from their high school teacher or other designated school official, send an official high school transcript to the CCC Admissions Office and secure approval from the corresponding program coordinator at CCC. Petitions for credit through articulation may be obtained from the high school counselor, the Admissions Office or the program coordinators at CCC.

After receiving approval from the CCC program coordinator to participate in CAP, students place the designated high school courses in escrow at CCC and become eligible to receive college credit for those courses provided they:

1. meet all of the admission requirements for CCC;
2. enroll at CCC within one year after high school graduation;
3. complete at least six semester hours in the corresponding articulated program at CCC, maintaining at least a "C" average in the articulated program; and
4. submit an acceptable portfolio and/or pass any required proficiency examinations specified in the program outline.

A student may request that directory information be withheld from the public by making a written request to the Registrar's Office during the first 12 days of a fall or spring semester or during the first four days of a summer session. Such requests will be valid until the first class day of the following fall semester. If no request is filed, information will be released upon inquiry.

Release of Information

In compliance with the Family Educational 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 student's:

1. name;
2. address;
3. telephone listing;
4. date and place of birth;
5. major field(s) of study;
6. participation in officially recognized activities and sports;
7. weight and height of athletic team members;
8. dates of attendance;
9. most recent previous educational institution attended; and
10. degrees and awards received.

A student may request that directory information be withheld from the public by making a written request to the Registrar's Office during the first 12 days of a fall or spring semester or during the first four days of a summer session. Such requests will be valid until the first class day of the following fall semester. 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 written consent of the student specifying the recipient and the information to be released. See the CCC Student Handbook for detailed information.
REstricted Access to Records

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

1. school officials and professors with a legitimate educational interest;
2. representatives of state, federal and local government when auditing and evaluating federal or state education programs;
3. financial aid officers to process a financial aid application or form;
4. governmental officials to which information is to be reported under state law;
5. accrediting organizations for accrediting purposes;
6. appropriate persons in case of emergency, if such information is necessary to protect the health or safety of the student or others; and
7. organizations approved by the president or the president’s 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 that will not permit the personal identification of students and their parents by persons other than representatives of such organizations.

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

REPeating Courses

Courses that may be repeated for credit more than one time are specified in the course description. Otherwise, courses may be repeated for the purpose of improving grade point average (GPA) only one time without permission from the appropriate academic administrator. Only the grade and credits earned in the most recent course repeated 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 student’s transcript.

Veterans should consult the director of financial aid/veterans affairs before repeating any course.

Satisfactory Progress

In order to encourage students to make progress towards their goals, the college has established minimum standards for satisfactory academic progress. After completing 18 quality hours, full-time and part-time students must maintain a minimum 2.0 cumulative GPA to be in good standing. Quality hours refers to the number of college-level hours a student completes at CCC, excluding developmental, non-traditional and transfer work. These quality hours are used in calculating a student’s GPA at CCC.

Academic Warning

Students with less than 18 cumulative quality hours at the college who have not earned a minimum 2.0 cumulative GPA will be placed on academic warning. Students on academic warning will receive written notification of their status each regular semester. Students on academic warning should seek advisement prior to continued enrollment; however, no registration restrictions will apply.

Academic Probation

Students accumulating 18 or more quality hours with less than a 2.0 cumulative GPA at the college will be placed on academic probation and notified in writing of their probationary status. Students on academic probation will be required to obtain the signature of their academic adviser on their advising registration ticket prior to registration. Students who have registered early and have been subsequently placed on academic probation should meet with their academic adviser prior to the end of the add/drop period.

Continued Enrollment on Probation

Students may enroll for classes while on academic probation as long as they earn a 2.0 or better grade point average for the current semester. Students on probation must see their academic adviser prior to registration and will not be eligible for the registration signature waiver option. Students will be removed from academic probation when their cumulative GPA is 2.0 or better.

Academic Suspension

Students on probation who earn less than a 2.0 GPA for the semester will be placed on academic suspension. Students on suspension may not re-enroll for the next regular semester (fall or spring) following the semester in which they were placed on suspension.
Students who register early and are subsequently placed on suspension may be administratively withdrawn unless they petition for continued enrollment. Suspended students who petition and are granted permission to re-enroll may have restrictions on the number of hours and courses in which they may register. Conditions for readmission are established and administered by the Academic Progress Task Force.

**Second Suspension**
Students who are suspended for the second time may not re-enroll for one calendar year and are not eligible to petition for readmission during that calendar year.

**Veteran Students**
Veteran students who make unsatisfactory academic progress will be reported to the Veterans Administration as being on probation at the end of the second consecutive semester when the cumulative GPA remains below 2.0. If a punitive grade is assigned to a veteran and is not converted to a non-punitive grade within a limited period of time, this will be reported to a VA Regional Office within 30 days of issuance of the punitive grade, and benefits will be reduced accordingly. Students who fail to meet these academic standards of progress will jeopardize eligibility to receive financial aid and/or other benefits such as those from the Veterans Administration.

**Student Classifications**
- **Freshman:** A student who has successfully completed fewer than 30 credit hours.
- **Sophomore:** A student who has successfully competed 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 short 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 short summer session.

**Student Code of Conduct**
Collin County Community College 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 college 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 college policies and municipal, county, state and federal laws; and
2. they shall not interfere with or disrupt the orderly educational processes of the college.

Students are entitled to only those immunities or privileges by law as enjoyed by other citizens. For more information, see the CCCC Student Handbook or contact the Dean of Students’ Office.

**Student Load**
A full-time student load is a minimum of 12 credit hours per regular semester. Students taking 11 credit hours or less per semester are classified as part-time students. Full-time status during the summer sessions or accelerated sessions may vary. For clarification, see “Student Classifications” or the registrar.
Students may, with special permission of the appropriate academic administrator, enroll for more than 15 credit hours during a regular session 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 regular semester or nine hours or less during a summer session.

**Transcripts**

Students wanting a transcript of their work at Collin County Community College should contact the Registrar's Office. Requests for official transcripts must be made in writing by the student to the registrar. A $2 fee will be charged for each official transcript requested. (Grade reports are mailed to students at the end of each 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 degree plan coordinator for transfer evaluation.

**Withdrawal From the College**

Students may withdraw with a grade of “W” through the end of the 12th week during the regular (16-week) semester or the end of the fourth week during the summer session, by completing a form in the Registrar's Office. Students may also withdraw from the college by sending a written request for such action. The request must include the student's signature and the student's address, social security number, phone number(s), and course names and numbers. The date postmarked on the envelope will be the official withdrawal date. Students should contact their professor prior to initiating a drop or withdrawal. Withdrawal from the college should be student-initiated.

Students who are enrolled in a developmental course for TASP purposes may not drop their only developmental course unless they completely withdraw from all college courses. Students may drop a developmental course through the end of the 14th week during regular (16-week) semesters, the end of the 4th week during short (five-week) summer sessions, and the end of the eighth week during a long (10-week) summer term, unless they are required by TASP to be in remediation. A student who discontinues class attendance and does not officially withdraw will receive a performance grade for the course.
SAFETY AND SECURITY

REPORTING EMERGENCIES

If an emergency should arise on campus, report it to the Information Center receptionist located on the first floor of each campus. Contact faculty within the classroom if a problem should arise during a class. Emergency medical services will be provided for students when necessary.

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 TW ELLEGE

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 p.m. for evening classes and by 6 a.m. for day classes.

HEALTH SERVICES

The college is dedicated to the total well-being of its students. Health fairs, alcohol and drug awareness programs, aerobic and other fitness courses are geared toward student wellness. Although the college does not employ a nurse or physician, first aid kits are available at the Information Center, Fitness Center, Physical Plant, Student Activities Office and division offices at both campuses. Should a student have a psychological or physiological problem, he or she should consult the dean of students for assistance.

IMMUNIZATIONS

Due to recent measles outbreaks, the Texas State Board of Health is strongly recommending all students born after Jan. 1, 1957, confirm appropriate immunizations or immunity to the following diseases: tetanus, diphtheria, mumps, measles and rubella.

DISABLED STUDENTS

Both Central Park Campus and Spring Creek Campus are accessible to individuals with disabilities. Special facilities such as automatic doors, elevators, restrooms and parking are provided to make college life more convenient. Lockers are available at Spring Creek Campus for students with temporary and permanent physical disabilities. To reserve a locker for an extended period, contact the Spring Creek Campus Student Activities Office (F129, 881-5788).

Additional services such as academic and personal advising, adaptive equipment and interpreters are available to students with physical disabilities. Services for Students with Disabilities (SSD) is located in the Student Development Center, G103 at Spring Creek Campus. Please call SSD at (214) 881-5950 (voice or TDD) for additional information.
STUDENT LIFE... INvolvement in Learning

ACADEMIC ADVISEMENT

Academic advising is an integral component of each student's success at CCCC and is an on-going process at the college. Any prospective student or Collin County resident interested in talking with an adviser should contact the Student Development Center at either campus. New students are advised through the Academic Advising Program prior to their first enrollment at CCCC. During their first semester, students are assigned to an academic adviser based on their declared major.

Currently enrolled students are strongly encouraged to meet with their assigned academic adviser several times each semester to prepare and update their degree plans and evaluate their academic progress. Changes in major or adviser can be made by completing the appropriate forms available in the Student Development Center.

Academic advising in the Student Development Center offers students:
- assistance for undecided and 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 meet individual needs;
- information about academic requirements;
- a source of information about procedures involving dropping a class, appealing grades, registration, etc.;
- a place to start when seeking to establish a degree plan (which may be filed upon completion of six semester hours);
- transfer information for those seeking to attend a four-year institution (Transfer Lab); and
- a resource for students who are unable to meet with their academic advisers.

SERVICES FOR STUDENTS WITH DISABILITIES

Both campuses are accessible to all individuals with disabilities. Interpreters and specialized equipment are provided to make college life more convenient. Several lockers at Spring Creek Campus are available for temporary or long-term (by the semester) use.

The Special Needs Center, located within the Learning Resources Center, is equipped with large print readers, scanners, and a voice synthesized speech program on an IBM compatible PC.

Contact the Services for Students with Disabilities Office (SCC: G103, 881-5950) for information about CCCC’s facilities and specialized services. Students with learning disabilities who need assistance should contact Project SPARK staff at 548-6835 or 881-5627.

ASSESSMENT AND TESTING SERVICES

Testing Centers are 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).

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 all first-time students and students who wish to enroll in any of the following courses.
- Reading: any college-level course which requires college-level reading skills. Students who pass this TASP section are exempt from local assessment.
- English: English 040, 041 and 151.
- Mathematics: any developmental math course, Math 150, 151, 153, 181, 182 and 183. Other assessments may be required based upon faculty and adviser recommendations.
In addition, English as a Second Language (ESL) students must first take the CLOZE Test in the Testing Center and then the Michigan Test of English Language Proficiency (MTELP). Students are placed in the appropriate course based on scores earned in the MTELP.

Generally, assessment results are valid for one year. The results of the basic skills assessment guides the adviser and student in proper course placement. These results are used for course placement only and do not affect the admission status of the student.

**Assessment Prior to TASP**

Students required to participate in TASP (see "Texas Academic Skills Program," page 11) must take TASP prior to accumulating more than nine hours of college-level course work. If students have earned nine college-level credit hours at the end of a given semester, they must take TASP before they will be eligible to enroll in college-level courses at CCCC. For most students this will mean taking TASP in their first semester. TASP registration bulletins are available from the Admissions Offices, Testing Centers and Information Centers at CCCC.

**Other Testing Services**

The Testing Center also offers an extensive testing program for students and residents of the county 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 (A fee of $20 is required for test administration.)

CCCC codes for these tests are shown below.

- CLEP (Spring Creek & Central Park campuses) 1951
- ACT (Central Park Campus) 4046
- ACT (Spring Creek Campus) 4209
- SAT (Central Park Campus) 44-464
- SAT (Spring Creek Campus) 44-702
- TASP (Central Park Campus) 137
- TASP (Spring Creek Campus) 138

Students requiring more information on the above programs should contact the director of testing.

**Financial Aid**

As a service to CCCC students, the Financial Aid office administers a financial aid program which includes scholarships, grants, loans and part-time employment, and its 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 the director of financial aid/veterans affairs. All financial aid students must familiarize themselves with the standards of academic progress. For more information call 548-6760 or 881-5760.

**Satisfactory Academic Progress**

CCCC recipients of financial aid must meet or exceed the standards set for satisfactory progress for all students.

**Academic Progress Requirements**

Federal law requires that students must be making satisfactory progress in their course of study in order to receive financial aid. CCCC policy has the following requirements:

**Grade Point Average (GPA) Requirements**

1. A student must maintain a 2.0 GPA for each semester or the combined summer sessions for which an award is approved.
2. A transfer student from a college outside of the district must have a cumulative 2.0 GPA as evidenced by an official academic transcript.

**Completion Requirements**

1. A student enrolled full time (12 credit hours or more) must complete a minimum of nine credit hours for any semester or the combined summer sessions for which funding is received.
2. A student enrolled three-quarter-time (9–11 credit hours) or half time (6–8 credit hours) must complete a minimum of six credit hours for any semester or the combined summer sessions for which funding is received.
3. A student who is enrolled in three to five credit hours in the summer must complete all attempted credit hours.
4. An “IP” or “I” in developmental courses will satisfy the completion requirements. These grades, however, must be replaced as stipulated in the contract.
Failure to Meet the Standards of Academic Progress

In these provisions, probation or suspension means financial aid probation or suspension, not academic probation or suspension.

1. Following the first semester in which the above standards of academic progress are not met, the student will be placed on probation and notified of that status. This status will remain for that semester of funding.

2. A new applicant with less than a cumulative 2.0 GPA or who does not meet the college standards of academic progress outlined above will not have met the standards of academic progress; however, financial aid may be awarded on a probationary basis for one semester only.

3. The student who fails to meet the standards of academic progress during the semester of attendance while on probation will be placed on suspension and denied further funding for one semester or combined summer sessions.

4. During the first period of suspension, the student must enroll at least half time for one semester at CCCC, pay the expenses related to that enrollment and maintain the standards of academic progress before eligibility for financial aid will be re-established.

5. If failure to meet satisfactory progress results in a second suspension from financial aid, the student must enroll at least half time for the equivalent of two semesters at the college, pay the expenses related to that enrollment, and maintain the standards of academic progress before eligibility for financial aid will be re-established.

6. Following any period of suspension, the student will again be eligible for funding on a probationary basis for one semester or combined summer sessions.

7. If failure to meet satisfactory progress results in a third suspension from financial aid, no additional aid will be awarded. Exceptions may be petitioned to the dean of students.

Notification

A student who is placed on probation or suspension will be notified in writing.

Incremental Measure of Progress

Academic progress of recipients will be measured three times a year following the fall and spring semesters and the summer sessions.

Maximum Time Period for Completion of Educational Objectives

1. Students receiving financial aid funds will be expected to complete his or her educational objective or course of study within a reasonable period of time. The maximum hour limit for CCCC is 75 credit hours (including transfer work), excluding developmental education courses.

2. Funding beyond the maximum hour limit may be approved by the director of financial aid and must be based on mitigating circumstances.

Appeal Process

1. A student who has been denied financial aid because of a failure to meet any of the criteria of the standards of academic progress may petition the director of financial aid to consider mitigating circumstances. The director will render a decision.

2. If the student is dissatisfied with the director’s decision, he/she may petition the financial aid appeals task force which will investigate the petition and render their recommendation to the dean of students. The dean of students will make a decision based on the facts of the case and serve as the final appeal authority.

Effects on Funding

1. Certain courses not considered for funding are:
   a. courses taken as an audit, and
   b. courses taken outside the degree plan; however, developmental courses, if required as a prerequisite to enable a student to successfully complete a student’s educational goal, will be considered for funding.

2. Credit hours earned by a placement test will not be considered for funding.

3. Courses for which an “I,” “IP” or “W” grade is received will not be treated as completed courses. An “I” or “IP” in developmental courses will satisfy the completion requirements.

4. Repeated courses will be considered for funding.

5. Financial aid may be paid for developmental courses that are prerequisites for credit courses. A student may be paid for a maximum of 24 developmental hours.
Financial Aid Programs

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. (Range: $100–$2,400/year.)

Supplemental Educational Opportunities Grant (SEOG)
The SEOG provides assistance for eligible students who show financial need and are making satisfactory progress toward their educational goal. Priority consideration is given to students demonstrating the greatest amount of financial need. (Range: $200–$4,000/year.)

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. (Range: $200–$3,240/year.)

Stafford Loan Program
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. Eligibility is based on financial need. Students can borrow up to $2,625 per classification level (30 hours).

State Assistance

Texas Public Education Grant (TPEG)
The TPEG program is a state financial aid program designed 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. (Range: $100–$1,100/year.)

Texas Public Education—State Student Incentive Grant (TPE-SSIG)
The TPE-SSIG is a state program that bases grants upon the financial need of the applicant. Eligibility is determined by the college based upon financial need and the availability of funds. (Range: $200–$1,000 per year.)

Scholarships
Scholarships at Collin County Community College are generally awarded on the basis of academic achievement, need, merit, special population or a combination of each. Scholarships are designed to encourage and assist students in pursuing academic excellence, merit, and leadership roles. All students are encouraged to apply.

Some of the scholarships available are: Carole Anthony, Dr. John H. Anthony Endowment, Botsford, Christ United Methodist Men’s Club, Collin County Legal Secretaries Association, Cooperative Work Experience Student of the Year Award, James E. Connate Memorial, Eric Funk, Jackie Dooley Memorial Scholarship for Learning Disabled Students, Frito-Lay Endowment, HCA Medical Center of Plano Endowment, John Ferguson Endowment, Foundation Scholar’s Program, Louise M. King Endowment, Performing Arts, Rodeo Club, Trustee-Merit Based and the E.L. Roy-H.P. Cohick.

Scholarship information is located in the Financial Aid Office.

Other Types of Assistance

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. Some of the tuition waivers are:
- Hazlewood Act
- Honor Graduates
- 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
- Ad Valorem

Veterans’ Educational Benefits

CCCC is fully approved for training of veterans under the provision of the G.I. Bill (Public Laws 346, 550, 16, and 89-358). Veterans and dependents of veterans should apply to the Financial Aid/Veterans Affairs Office before the school term begins.

Paperwork should be filed six weeks prior to registration, if possible. This gives the VA Regional Office time to process the papers and to communicate with the veteran prior to registration.
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 degree plan coordinator for transfer evaluation.

**Additional Financial Aid Information**

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

Students may apply for financial aid simply by completing a Financial Aid Form or American College Testing Form which is available in the Financial Aid Office and in most high school counseling offices. The priority deadline is as follows:

- Fall semester — June 1
- Spring semester — November 1
- Summer semester — March 1

**Career Planning and Placement**

**Future Shop**

The Future Shop is available on both campuses and offers a variety of opportunities for students to explore career options and to prepare for the world of work. The Future Shop is designed with three basic components:

1. **Career Assessment and Exploration**

The following resources are available in or provided by the Future Shop:

- Interest assessments
- Personality and values assessments
- "Discover" — Computerized Career Guidance Program
- GIS — Computerized Guidance Information System
- Career Resource Library
  - Occupational Information
  - Personal Development
  - Career Planning/Job Search
  - Video Cassettes
- Annual Career Awareness Week
- Workshops/Seminars
- Mentor Program

* Effective March 1, 1991, a fee scale was implemented for all non-Collin County Communi@College students desiring to take career assessments. Please contact the Future Shop at Central Park Campus (A108, 548-6720) or Spring Creek Campus (G103, 881-5781) for additional information.

2. **Job Grooming**

The following resources are located in each lab

- **Free Resume and Cover Letter Service:** "The Perfect Resume" computer program offers a variety of formats for professional resumes. Laser printed copies of resumes are produced. Individual critiques of resumes are available.
- **Interview Coaching**
- **Videotaped Interviews:** Mock interviews with an individual critique help prepare students for actual interviews.

3. **Job Placement/Transition Support**

Placement services are limited to current students with a valid CCCC student ID card. The following resources are in each lab:

- **On-Campus Employment:** A variety of positions are available on campus for students. Student jobs are classified as College Work-Study (CWS) or non-College Work-Study positions.
- **Off-Campus Employment:** The Job Location and Development (JLD) Office develops off-campus employment sites for students. A current listing of off-campus positions is maintained. Part-time as well as full-time jobs are listed.

Applications for on-campus and off-campus positions are available in the Future Shop.

**Articulation and Transfer Programs**

A transfer lab is available to students on both campuses in the Future Shop located in the Student Development Center. The transfer lab is designed to help students transfer courses and/or programs from CCCC to four-year institutions. Check the Transfer Lab for up-to-date information on other institutions.

- Students are encouraged to meet with an adviser in their field of study.
- Four-year institutions determine courses which will be required for degrees. Check the appropriate course catalog for up-to-date degree plans.
- Some courses are designed for job entry and career preparation and may not meet degree requirements.
- Courses in developmental education and some courses in human development are designed for individual skill and personal improvement and generally will not transfer to a four-year institution.
- Check the specific course catalog for admission, housing, scholarship and financial aid deadlines.
When duplicating (repeating) a course at CCCC, check with the receiving institution on their policy for accepting course duplications.

**Resolution of Transfer Disputes**
CCC works closely with other institutions to make the transfer process as smooth as possible. The Texas Higher Education Coordinating Board has established procedures to be followed when transfer credit for lower division courses is disputed. The individual courses covered by this procedure are defined by the coordinating board’s guide entitled “Transfer of Credit Policies and Curricula”

**Resolution of Transfer Disputes for Lower-Division Courses**
The following procedures shall be followed by public institutions of higher education in the resolution of credit transfer disputes involving lower-division courses:

1. If an institution of higher education does not accept course credit earned by a student at another institution of higher education, the receiving institution shall give written notice to the student and to the sending institution that transfer of the course credit is denied.

2. The two institutions and the student shall attempt to resolve the transfer of the course credit in accordance with Board rules and/or guidelines.

3. If the transfer dispute is not resolved to the satisfaction of the student or the sending institution within 45 days after the date the student received written notice of denial, the institution whose credit is denied for transfer shall notify the Commissioner of the denial.

The Commissioner of Higher Education or the commissioner’s designee shall make the final determination about the dispute concerning the transfer of course credit and give written notice of the determination to the involved student and institutions.

A complete copy of the guide, including definitions, and Transfer Dispute Resolution Forms are available at CCCC from the director of articulation and transfer (881-5757) and the vice president of instruction (881-5801).

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**“Next Step” — Transfer Program**

“Next Step” is a program designed to assist students’ transition from CCCC to four-year institutions by providing the following:

- Peer support through a networking system of transfer students on campus
- List of course equivalencies for CCCC and four-year institutions
- Resource materials
- Information on transfer of credit
- Directory listing addresses and phone numbers for four-year institutions
- Course and program transfer guides
- Library of catalogs for both out-of-state and Texas colleges and universities
- Degree plans for four-year institutions

It is the responsibility of the student to check with the college or university to which they wish to transfer all requirements. The student should know admissions requirements, specific department requirements, deadlines and courses that will satisfy a specific degree.

**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.

**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 (ALC), located in the Learning Resources Center, students may also use self-paced programs on time management and study skills.

**Interdisciplinary Honors Program**
The Honors Program at CCCC is designed to provide a challenging learning experience for students with advanced academic skills. In small classes (maximum: 15 students) advanced and highly motivated students engage in discussion, research and creative projects geared to their special abilities and commitment.
to learning. In the honors forum of thoughtful and communicative participants, interaction among students is fundamental. Among other benefits to students are a honors course designation on the transcript and possible qualification for honors scholarships.

Students are usually recommended to honors courses by professors. However, any disciplined student with accelerated skills is invited to consider the program and may enroll in honors courses with the instructor’s approval.

Inquiries should be directed to the chair of the Honors Task Force at 881-5829 or the Advising Office 881-5778.

**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, writing and ESL. The instructional formats vary and include individualized, self-paced and lecture approaches. If basic skills assessment scores indicate that a 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.

Developmental classes and other support programs are specifically designed to help students gain the skills and self-confidence needed to successfully complete credit courses. Since the fall of 1989, the implementation of Texas House Bill 2182 (TASP) mandated that students who are not ready for college-level courses must take developmental classes. Each of the developmental disciplines (math, reading and writing) is designed to provide the skills tested on TASP.

In addition to the courses, developmental education also offers study skill seminars which teach students basic study and test-taking skills. A schedule of these free seminars is published each semester. Copies of the schedule may be obtained at the Information Center at both campuses. Please call 881-5720 for additional information.

**Project SPARK**

Project SPARK (Student Program to Achieve and Reinforce Knowledge) is a federally-funded program designed to help first-generation, disabled and/or low-income students. Among the services provided are counseling, tutoring, basic skills instruction and culturally enhancing activities. Please call 548-6827 or 881-5898 for additional information.

**SUCCESS**

SUCCESS is a cooperative work experience program that unites classmom study with community service. Students approved for the program receive a stipend for volunteer, community service projects. The program helps to develop a unique linking system which bonds students to their communities and increases their civic knowledge.

**Library/Learning Resources Center (LRC)**

The LRC is located on the first floor of Central Park Campus and is a two-story facility facing the atrium at the entrance of Spring Creek Campus. Available materials include the following:

<table>
<thead>
<tr>
<th>Type</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Books</td>
<td>95,000</td>
</tr>
<tr>
<td>Videotapes</td>
<td>3,750</td>
</tr>
<tr>
<td>Phonograph Recordings</td>
<td>1,200</td>
</tr>
<tr>
<td>Periodicals</td>
<td>800</td>
</tr>
</tbody>
</table>

A computerized system is available to help patrons locate these materials, most of which are available for home use.

**HOURS**

The LRC is scheduled to be open during the following hours for the 1992-93 academic year:

**Central Park Campus**

- **Monday-Thursday:** 7:45 a.m.–9:30 p.m.
- **Friday:** 7:45 a.m.–5 p.m.
- **Saturday:** 8 a.m.–noon
- **Sunday:** closed
**Spring Creek Campus**

- **Monday–Thursday:** 7:45 am.–10 p.m.
- **Friday:** 7:45 a.m.–5 p.m.
- **Saturday:** 9 a.m.–4 p.m.
- **Sunday:** 1–5 p.m.

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

### Borrowing Privileges and Materials

The libraries at both Central Park and Spring Creek campuses are available for use by students and the public. The total collection of 80,000 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.

#### Loan Period

Books, records and audio tapes may be checked out for three weeks. Videotapes may be checked out at a cost of $1 per night. All materials must be returned by the due date and may be returned to either Central Park or Spring Creek campuses.

#### Community Borrowers

All residents 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.

### Special Features of the LRC

#### Alternative Learning Center (ALC)

The ALC provides learning through the use of video, computers, telecommunications and progressive instructional design. It houses hundreds of instructional computing programs in dozens of areas of academic, business and personal interests. A microcomputer "Classroom of the Future," telecourses and self-paced courses offer flexible scheduling for students unable to attend regular daytime or evening classes.

#### Media Services

- **Supports** the instructional program (faculty and students) with audio-visual and video equipment and related materials. Special services include:
  - **Student Media Workshop**
    A VHS video editing lab provided by the LRC for students to do their class projects.
  - **Cable TV**
    Media Services of the LRC has Plano cable TV available for instructional purposes and also has one outgoing channel E-34 to provide Plano cable and TV viewers with college information, announcements and events, and educational material.
  - **Teleconferences**
    Media Services of the LRC has one G-band and one KU-band satellite available and has the ability to down-link teleconferences for the college or community.

#### Bijou and Ritz Theatres

Learning theatres are available to patrons to view feature films and educational videotapes in a non-classroom setting. These theatres are available on a scheduled basis. Consult the weekly program for the titles being shown.

#### Individual Viewing Booths

These booths are located throughout the library and are available to students to view videotapes on an individual basis.

#### CD ROM Network

The LRC has a CD-ROM network available to patrons to search over the 30 databases and indexes on a Wide Area Network using PC and Mac work stations. Database options include poetry and literature indexes; automated versions of the Physicians Desk Reference; and business indexes from Dunn and Bradstreet, and Standard and Poors. Many of the CDs utilize graphics and sound as well as the ability to search by keywords.

#### Special Needs Center

The Special Needs Center is located within the LRC and is staffed by ALC personnel. The center is available to all students, faculty, staff and community members with disabilities. The center is equipped with large print readers, scanners and a voice synthesized speech program. The voice synthesizer is available on an IBM compatible PC with a Braille printer.
**LRC Handbook**
A handbook is available to students to assist them in learning how to use the library.

**Photocopying**
Coin operated photocopying machines are available for patron use in the LRC on both campuses. The cost is 10 cents per page copied.

**Plano Public Library**
Since the summer of 1991, the LRC has had integrated terminals which show holdings of both the LRC and the Plano Public Library in one easy-to-use system.

**Association of Higher Education (AHE) Catalog on Compact Disc (at Spring Creek Campus only)**
A terminal is available which shows the holdings of five AHE libraries: Baylor University, Dallas County Community College District, Dallas Public Library, University of North Texas and University of Texas at Arlington. This catalog of the five libraries makes over one million volumes available through interlibrary loan.

**Microcomputer Laboratory (at Spring Creek Campus only)**
A sophisticated, networked microcomputer laboratory is available to students for course-related learning activities.

**Texasyville Room (at Spring Creek Campus only)**
This lounge area offers students informal learning experiences.

**Experiential Learning**
Collin County Community College is committed to a competency-based curriculum which emphasizes experiential learning. Many courses and programs include a laboratory element which focuses on the application of methods of inquiry, allowing 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, Writing, social science and open computer labs.

**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 use slide/tapes, videos and computerized programs to reinforce classroom lectures.

The drop-in lab hours vary each semester and a published schedule is available at the beginning of each term.

**Writing Center**
CCCC is committed to “writing-across-the-curriculum” (WAC) and encourages students to use the services available in the Writing Center. The purpose of the Writing Center is to allow students to obtain help with writing assignments, providing tutorials for students with assignments in English and in other disciplines. The schedule of hours for centers at both campuses is published each semester. Appointments are recommended, but drop-in visits are welcome. The Writing Centers are located in the LRC at each campus.

**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 Lab provides 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 experiences in all areas of instruction. Many programs offered at CCCC use 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.

**TELECOURSES**

CCCC offers a variety of credit courses through instructional television from the Alternative Learning Center (ALC).

Registration for these courses is during regular registration and students are required to attend an orientation session in the LRC for each telecourse take.

All courses apply toward associate degree requirements, many fit into certificate programs, and the majority fulfill requirements for B.A. and B.S. degrees. Consult the current Schedule of Classes for available telecourses.

**COOPERATIVE WORK EXPERIENCE**

Cooperative Work Experience (CWE) at CCCC includes not only the traditional vocational/technical cooperative education opportunity but is also available in academic internships as well as service learning in non-paid volunteer community service projects.

CWE is a unique plan of education which integrates classroom study with planned and supervised work experience. This educational pattern allows students to acquire practical skills as well as to be exposed to the reality of the world beyond the boundaries of the campus, thus enhancing the self-awareness and direction of the participants.

To be eligible for Cooperative Work Experience at CCCC, students must be working toward a degree or certificate, have a minimum grade point average of 2.5, and be concurrently enrolled in another credit course at the college.

A student who is presently employed may use their current job if it relates to their ultimate career goal. Working a minimum of 20 hours per week for a 16-week semester allows a student to earn three to four semester hours of college-level credit toward a degree.

**STUDENTS WITH EDUCATION AND EXPERIENCE (S.E.E.)**

S.E.E. is a cooperative education-based retention program for students who are at risk of leaving the educational system. It features an innovative curriculum, a mentoring program and a career tracking plan. S.E.E. is open to all qualified students whose educational and career goals allow for enrollment in a cooperative education class. CCCC is committed to providing professional growth through experience-based education.

**INTERNATIONAL STUDY PROGRAMS**

The college offers international study programs in a variety of fields to help prepare students for the increasingly internationalized world. International programs (some offered in alternate years) include Month-In-Paris, British Isles, International Internships, Marine Biology-in-Cozumel and Spanish Language Programs.

**Month-in-Paris Students Prepare to Ascend Mount St. Michel**

**Month-In-Paris Program**

This program offers a combination of study and travel in France for students interested in the French language and western world art. Students live and study in Paris during the month of July and earn seven college-level credits. A unique feature of the program is that no previous language training is required.

**British Isles Program**

Students spend three to four weeks in Britain and earn college credit through the study of literature, photography and other varied topics.
INTERNATIONAL INTERNSHIPS
From time to time the college may offer students opportunities to earn credit by working abroad in fields such as nursing, photography or child care. Interested students should inquire at the office of the appropriate division dean.

INTERNATIONAL MARINE BIOLOGY PROGRAM
An increasing awareness of the global importance of the ocean environment has led to the establishment of this program which features a one-week field trip to selected coral reefs. Students earn four credits for enrolling in Marine Biology (BIOL 153) and for participating in its field trip which emphasizes reef ecology and the biology of reef organisms. SCUBA certification is required.

SPANISH LANGUAGE PROGRAM
Involving intensive language study in Mexico or Spain, the Spanish language program was offered for the first time in the summer of 1992. Students earn transferable college credit, study Spanish with native teachers and develop first-hand knowledge of Hispanic culture.

STUDENT ACTIVITIES
STUDENT ACTIVITIES PROGRAMS
College administrators and faculty believe that students’ involvement in their educational experience greatly increases their likelihood of having successful and rewarding college careers. All students, therefore, are encouraged to participate in co- and extra-curricular activities that will foster social, cultural and educational growth.

The Student Activities Office offers traditional campus events such as entertainers, special activities, cultural events, competitive games, etc. In conjunction with CCCC’s laboratory component, many student activities programs integrate in-class material with events outside the traditional classroom environment. Guest speakers, art exhibits, displays and field trips are all a part of student activities.

A variety of registered student organizations and college task forces offer opportunities for involvement, and students are encouraged to form new organizations to further their own interests. The director of student activities and the student activities associate are 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 thoughts and feelings about college policies, procedures and activities. The president, vice presidents and other administrators of the college are interested in the reactions, opinions and ideas of all students. Through representation on college task forces, article submissions to the Student Update newsletter, participation in President’s Luncheons and personal conversations with administrators, students are encouraged to communicate their needs, desires and proposals for change.

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

See the current CCCC Student Handbook for detailed information on how to get involved in student activities.

FITNESS CENTER
A major emphasis of the Health, Physical Education and Dance department at CCCC is to encourage lifetime fitness. Students may use the Fitness Center at either Central Park Campus or Spring Creek Campus during the times posted. The Central Park Campus Fitness Center consists of locker room facilities, Universal weight machines, rowing machines, treadmill, bicycles and
aerobic dance area. The Spring Creek Campus Fitness Center consists of the main gymnasium with rubber running track; weight training 5000 ft with Universal Super Circuit single station weight machines, free weights, treadmills, Stairmaster, rowing machines and bicycle ergometers; dance studio; four racquetball courts; locker room facilities with sauna; eight lighted tennis courts; outdoor running trail; and playing fields.

Before beginning anew exercise regimen, students, faculty, staff and community members are encouraged to take a fitness assessment in the Wellness Center. Contact the wellness director to set up an individual wellness program.

Collin County residents who are not enrolled in classes at the college will have the opportunity to take advantage of these facilities at night and on weekends with a $45 per semester paid membership. Contact the Fitness Center at either campus (CPC: B207, 548-6891; SCC: A103, 881-5848) for further information and hours of operation.

**Intramurals**

The intramural sports program includes volleyball, basketball, flag football, softball, soccer, bowling, golf, racquetball and tennis. These are an integral part of the total physical education program at CCC. For information, contact the director of intramurals, 881-5848 or 548-6848.

**Intercollegiate Athletics**

The college offers intercollegiate athletic programs in men’s basketball, baseball and tennis, and in women’s volleyball and tennis. These teams are affiliated with the National Junior College Athletic Association (NJCAA) and participate in regional events which may lead to national competition. To participate in intercollegiate athletic programs at CCC, students must be enrolled full-time (12 semester hours) and maintain a 2.0 GPA each semester. Contact the athletic director at 881-5888 for more information.

**Music Program**

The Music Department at CCC offers a full curriculum of music study including music theory, music literature, choral and instrumental ensembles audio recording techniques, electronic music production as well as class and private lessons.

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

- Choral Band;
- Flute Choir;
- Guitar Ensemble;
- Jazz Lab Band;
- Madrigals;
- Plano Community Band;
- Plano Civic Chorus; and
- Wind Ensemble.

The music facility at Spring Creek Campus is one of the finest in the southwest. The 6,000 square-foot space houses band and choral rehearsal rooms, a 16-back professional recording studio, five practice rooms, a CAI music lab and a MIDI electronic piano lab. For further information contact the coordinator of music (SCC: B183, 881-5807).

**SPEECH AND THEATRE PROGRAMS**

CCCC’s speech communications and theatre departments offer a wide range of opportunities for students interested in performing arts and in various other forms of communication. Credit courses in these areas go beyond the classroom to allow students to develop their communication and performance skills before local, state and national audiences.

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 competition. The newly developed theatre program. From small “black box theatre” shows to large-scale musical productions in the 365-seat John Anthony Theatre, the theatre department provides experience for performers of all levels.

Interested students should contact the Arts and Humanities Office for further information.
CONTINUING EDUCATION AND SPECIAL PROGRAMS

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

The college strives to make programs readily accessible and bring "lifelong learning" opportunities to the public 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 the Continuing Education Division, 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 curricular activities relevant to needs of the local economy;
- contributing to 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; and
- providing cultural activities that enhance the Community's awareness of the arts.

Each of these specific purposes within the Continuing Education Division relates to the purpose of promoting the philosophy of "lifelong learning" at CCCC.

CCCC's flexible continuing education program 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.

CONTINUING EDUCATION COURSES

The Continuing Education Division publishes a schedule each semester with approximately 450 courses pertaining to business and professional development, personal development and extra-curricular activities. Conferences and seminars on special topics are also offered throughout the year.

CONTRACT TRAINING

The Contract Training Office 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.

CONTINUING EDUCATION UNITS

The Continuing Education and Contract Training offices may offer courses which award credit or Continuing Education Units (CEU), 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.

For more information on how the Continuing Education Division can be your connection to lifelong learning, please call 548-6850 (Central Park Campus) or 881-5851 (Spring Creek Campus).
**Small Business Development Center (SBDC)**

The SBDC, a partnership between the U.S. Small Business Administration and Collin County Community college, aims to promote the economic health and success of small businesses in Collin County. The SBDC provides free, in-depth small business counseling as well as seminars and workshops on topics relevant to established, new and potential small business owners.

**Economic Development**

The Economic Development Office initiates and participates in economic activities which contribute to the growth and development of county-wide business and industry.

**Collin County Training and Employment Program**

The Collin County Training and Employment Program is a joint effort between the college and the Job Training Partnership Act (JTPA). Collin County has been designated a JTPA Service Delivery Area with CCC as the administrative entity for JTPA. Eligible persons who are needing to enter or re-enter the workforce may qualify for employment and training services. Special services also are provided to youth (ages 14-21), dislocated workers, welfare recipients, single parents and displaced homemakers. Contact the CCTEP Office at 542-0490 in McKinney and 964-3962 in Plano for more information.

**Texas Resource Center for Work Transition Programs**

Collin County Community College is committed to promoting the growth of a variety of work transition programs to other community and technical colleges within the state of Texas. This is accomplished by providing professional development, training and resources to administrators, faculty and to employers in setting up and improving work transition programs. These include CCC's Cooperative Work Experience, S.B.E.P. (Student's with Experience and Education), and SUCCESS (a service-based work experience program), as well as other types such as Apprenticeship, Internships, partnerships and custom-designed programs to meet individual employer's needs.

The center houses a resource library of materials and videos on work transition programs and related topics which are available upon request.

The Texas Resource Center for Work Transition Programs is funded from a Carl D. Perkins Vocational Education grant administered through the Texas Higher Education Coordinating Board.

**Employment Resource Center**

The Employment Resource Center is an on-going project sponsored by the college which provides training and employment opportunities to area residents age 55 and over. During its five year tenure, the ERC has helped hundreds of older workers acquire new skills, make career transitions or simply find the right job for them. Additionally, many area businesses have strengthened their workforce by hiring mature, dependable employees referred by the ERC. Funded by the Job Training Partnership Act, ERC services are free to eligible individuals who in Collin, Denton, Hunt or Rockwall counties. Residents of Dallas or Grayson counties may inquire about eligibility. For more information, call (214) 548-6844 at Central Park Campus or (214) 881-5790, extension 6844 at Spring Creek Campus.

**Global EDGE Consortium**

The needs of Collin County employers for skilled workers are changing dramatically. To assure that students obtain the technical and lifelong learning skills required for immediate and continued employment, CCC, local public school districts, and area businesses have formed a consortium to transform education.

Global EDGE will provide students with appropriate, flexible and seamless programs throughout the public school and higher education system. The learning environment will reflect work place experiences and work transition programs will provide students with the skills required to complete the new Associate of Applied Science with Advanced Skills degree. Students will be able to pass the Texas Advanced Certification Exams now being developed. Advanced Skills Certification will provide students with nationally recognized credentials and virtually assure employment in a high-paying career. For more information about Tech Prep programs, call 5484730 or 881-5790, ext. 6730.
## DEGREE PROGRAMS

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<tr>
<td>Political Science</td>
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<td>Pre-Dental</td>
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<td>Pre-Law</td>
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<td>Pre-Medical</td>
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<td>Psychology</td>
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<td>Real Estate</td>
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<td>Respiratory Care</td>
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<td>Sociology</td>
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<td>Spanish</td>
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<tr>
<td>Speech Communication</td>
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<tr>
<td>Theatre</td>
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</table>
DEGREES OFFERED

Collin County Community College offers three degrees and a number of certificates. Offerings include Associate of Arts (A.A.), Associate of Science (A.S.) and Associate of Applied Science (A.A.S.) degrees. The areas of study on the following pages reflect the courses which are suggested to obtain an associate degree or certification. In addition, anyone may take courses without obtaining a degree.

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 advisers for further information.

GENERAL EDUCATION CORE

The general education core required for an associate degree at Collin County Community College provides students with a focused, integrated curriculum. Courses in the core establish a foundation for cultural understanding and lifelong learning. The core addresses skills in written and oral communication, mathematics, computer literacy, interpersonal relations, and critical and creative thinking. The core also fosters appreciation of the natural and physical environment, historical and political perspectives, international and multi-cultural issues, social, mental and physical well-being. The core emphasizes substantive knowledge and methods of inquiry, theory and application, and promotes active participation in the experience of learning.

The general education core is an essential component of all degree programs offered at CCCC because it transcends vocational and career training and provides students with the skills and knowledge to become active and productive members of the community.

ASSOCIATE OF ARTS DEGREE PROGRAMS

The Associate of Arts degree provides general academic courses which enable students to transfer to a four-year institution of their choice. It is the student's responsibility to choose a college or university as soon as possible and to determine the specific degree requirements of that institution. Students should consult with a CCCC adviser and the four-year institution on a regular basis to ensure enrollment in courses appropriate to the chosen major.

GENERAL EDUCATION CORE REQUIREMENTS: (CH = CREDIT HOURS)

I. ENGLISH
   9 CH to include:
   6 CH  ENGL 151  Composition/Rhetoric I and
          ENGL 152  Composition/Rhetoric II
   3 CH

II. SPEECH COMMUNICATIONS'
   3 CH  SPCM 151  Fundamentals of Speech Communication

III. SOCIAL SCIENCES
   12 CH to include:
   6 CH  HIST 151  U.S. History I and
          HIST 152  U.S. History II
   6 CH  PLSC 261  American Government I and
          PLSC 262  American Government II
IV. Mathematics and Natural/Physical Sciences

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MATH 150</td>
<td>Contemporary Mathematics (or higher as determined by major field of study)</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 151</td>
<td>Introduction to Biology I</td>
<td>6-8</td>
</tr>
<tr>
<td>BIOL 152</td>
<td>Introduction to Biology II</td>
<td></td>
</tr>
<tr>
<td>CHEM 151</td>
<td>Introduction to Chemistry</td>
<td></td>
</tr>
<tr>
<td>CHEM 152</td>
<td>Introduction to Chemistry</td>
<td></td>
</tr>
<tr>
<td>PSCI 151</td>
<td>Physical Science I</td>
<td></td>
</tr>
<tr>
<td>PSCI 152</td>
<td>Physical Science II</td>
<td></td>
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<tr>
<td>PSCI 153</td>
<td>Elementary Astronomy</td>
<td></td>
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<tr>
<td>PSCI 154</td>
<td>Earth Science</td>
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</tbody>
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*Prerequisite: high school algebra or equivalent

V. Computer Literacy

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPSC 150</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
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</table>

VI. Humanities

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HUM 151</td>
<td>Introduction to Humanities or</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 151</td>
<td>Introduction to Philosophy</td>
<td></td>
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<tr>
<td>PHIL 152</td>
<td>Logic</td>
<td></td>
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<tr>
<td>PHIL 153</td>
<td>Ethics</td>
<td></td>
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<tr>
<td>PHIL 154</td>
<td>Comparative Religion</td>
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VII. Behavioral Science

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 151</td>
<td>General Psychology or</td>
<td>3</td>
</tr>
<tr>
<td>SOC 151</td>
<td>Introduction to Sociology</td>
<td></td>
</tr>
</tbody>
</table>

VIII. Health, Physical Education and Dance

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPED</td>
<td>Any two activity comes</td>
<td>2</td>
</tr>
</tbody>
</table>

General Education Core: 44-46 Credit Hours

Electives (See pages 45-97): 14-16 Credit Hours

Total: 60 Credit Hours

- The general education core for the Associate of Arts degree consists of 44-46 credit hours. The electives and/or major field of study consists of 14-16 credit hours. This degree requires the completion of a minimum of 60 credit hours, including at least 18 hours earned at CCCC.
- Waivers for physical education requirements may be granted for medical reasons. A written statement from a physician and two additional hours of electives are required. Credit for HPED courses is awarded for military training upon receipt of DD214 (Honorable Discharge).
- Foreign languages — Students planning to transfer to a four-year institution should contact the transfer institution before beginning work toward the A.A. or A.S. degrees. Some colleges and universities require two years of a foreign language for the completion of the bachelor's degree.

1. Students planning to transfer to a four-year institution should check the specific degree plan requirements located in the Transfer Lab.
2. Higher levels of mathematics and science may be substituted with adviser approval.
The Associate of Science degree provides general academic courses which enable students to transfer to a four-year institution of their choice. It is the student's responsibility to choose a college or university as soon as possible and to determine the specific degree requirements of that institution. Students should consult with a CCCC adviser and the four-year institution on a regular basis to ensure enrollment in courses appropriate to the chosen major.
VI. **Humanities**

3 CH to include:

<table>
<thead>
<tr>
<th>3 CH</th>
<th>HUM 151</th>
<th>Introduction to Humanities or PHIL 151</th>
<th>Introduction to Philosophy</th>
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<tbody>
<tr>
<td></td>
<td>PHIL 152</td>
<td>Logic</td>
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<td></td>
<td>PHIL 153</td>
<td>Ethics</td>
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<tr>
<td></td>
<td>PHIL 154</td>
<td>Comparative Religion</td>
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</tbody>
</table>

VII. **Behavioral Science**

3 CH PSYC 151 General Psychology or SOC 151 Introduction to Sociology

VIII. **Health, Physical Education and Dance**

2 CH HPED Any two activity courses

**General Education Core**

44-46 Credit Hours

**Electives (See Pages 49-91)**

14-16 Credit Hours

**Total**

60 Credit Hours

- The general education core for the Associate of Science degree consists of 44-46 credit hours. The electives and/or major field of study consists of 14-16 credit hours. This degree requires the completion of a minimum of 60 credit hours, including at least 18 hours earned at CCCC.

- Waivers for physical education requirements may be granted for medical reasons. A written statement from a physician and two additional hours of electives are for HPED is awarded for military training upon receipt of DD214 (Honorable Discharge).

- Foreign languages—Students planning to transfer to a four-year institution should contact the transfer institution before beginning work toward the A.A. or A.S. degrees. Some colleges and universities require two years of foreign language for the completion of the bachelor's degree.

1. Students planning to transfer to a four-year institution should check the specific degree plan requirements located in the Transfer Lab.

2. Higher levels of mathematics and science may be substituted with advisor approval.
ASSOCIATE OF APPLIED SCIENCE DEGREE PROGRAMS

The Associate of Applied Science degree is awarded after completion of a prescribed two-year program of study which prepares the student to enter and compete in the job market. The programs are also designed for individuals who are upgrading current job skills. The student should remember that the majority of credits earned in most vocational/technical programs are designed for work-place competencies and not transfer. However, some of the programs do transfer to specific four-year institutions and it is important for the student to consult with an adviser at CCCC as well as the far-year institution.

1. **English**
   3 CH   ENGL 151  Composition/Rhetoric I

2. **Speech**
   3 CH   SPCM 151  Fundamentals of Speech Communication or SPCM 293  Business and Professional Speaking

3. **Mathematics**
   3 CH   MATH 150  Contemporary Mathematics (or higher as determined by major field of study)

4. **Computer Literacy**
   3 CH   CPSC 150  Introduction to Computers

5. **Economics**
   3 CH   ECON 121  Introduction to Economics

6. **Humanities**
   3 CH   HUM 151  Introduction to the Humanities

7. **Behavioral Science**
   3 CH   PSYC 121  Applied Psychology

8. **Health, Physical Education and Dance**
   1 CH   HPED  Any activity course

The general education core for the Associate of Applied Science degree consists of 22 credit hours. The total number of hours required to complete an A.A.S. degree varies depending upon the field of study. A minimum of 18 credit hours must be earned at CCCC.

Waivers for physical education requirements may be granted for medical reasons. A written statement from a physician and two additional hours of electives are required. Credit for HPED courses is awarded for military training upon receipt of DD214 (Honorable Discharge).

CERTIFICATE PROGRAMS

The certificate programs are designed for re-entry into the job market or the upgrading of skills. The certificate is awarded after the completion of course requirements in the area of specialization. The programs vary in length and prepare the student for immediate employment. The certificate programs follow each related Associate of Applied Science degree.
ABOUT OUR PROGRAM

This Associate of Arts degree provides general academic courses and electives that enable students who intend to major in accounting to transfer to four-year institutions. Because of the various transfer requirements of different four-year institutions, and to ensure enrollment in appropriate courses, students should consult with a CCCC adviser and the institution which they plan to attend.

ASSOCIATE OF ARTS DEGREE REQUIREMENTS:

ACCOUNTING

I. General Education Core Credit Hours

See page 40 for General Education Core requirements.

II. Recommended Electives

(14–16 credit hours)

A. ACCT 191 Principles of Accounting I .................... 3
B. ACCT 192 Principles of Accounting II .................... 3
C. ACCT 193 Managerial Accounting .................. 3
D. ECON 291 Principles of Economics-Macro ............ 3
E. MATH 151 Calculus for Business and Econ. * .......... 3

*Math 151 recommended in general education core

ACCOUNTING

A TWO-YEAR ASSOCIATE OF APPLIED SCIENCE DEGREE PROGRAM

61 CREDIT HOURS REQUIRED TO GRADUATE

ABOUT OUR PROGRAM

Accounting firms, public corporations and private firms have expressed a need for two-year accounting graduates who have learned the skills needed to act as accounting paraprofessionals. The Associate of Applied Science degree in accounting was developed in response to that need.

Students who participate in this program learn a variety of accounting skills related to financial accounting, managerial accounting, auditing and taxation. Furthermore, these students learn computer skills related to spreadsheet, data bases and word processing. Students also learn about the ethical and legal environments in which these skills are used.

This program is an exciting opportunity for students desiring a two-year Associate of Applied Science degree.

After two years of college study, the student will be prepared for entrance into a paraprofessional accounting career.

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

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, students select from a diversified variety of career options in the areas of:

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

ARTICULATION/TRANSFER AGREEMENT

Formal articulation and/or transfer agreements have been established allowing graduates with an Associate of Applied Science degree to continue their education in bachelor’s degree programs at specific four-year universities. For detailed information contact the coordinator of the A.A.S. program or the director of articulation and transfer programs.

ASSOCIATE OF APPLIED SCIENCE DEGREE REQUIREMENTS:

ACCOUNTING

I. General Education Core Credit Hours

(22 credit hours)

A. ENGL 151 Composition/Rhetoric I ..................... 3
B. SPCM 151 Fundamentals of Speech Comm. ............ 3
C. MATH 151 Pre-Calculus for Bus./Econ. ................ 3
D. ECON 291 Principles of Economics *Macro ............ 3
E. PSYC 121 Applied Psychology ......................... 3
F. HUM 151 Introduction to Humanities ................... 3
G. CPSC 150 Introduction to Computers .................. 3
H. HPED Any Activity Course ............................... 1

II. Technical Program Core

(12 credit hours)

A. ACCT 191 Principles of Accounting I .................. 3
B. ACCT 192 Principles of Accounting II .................. 3
C. ACCT 194 Intermediate Accounting ................... 3
D. ACCT 195 Intermediate Accounting ................... 3

III. Major Course

(18 credit hours)

A. ACCT 193 Managerial Accounting ..................... 3
B. ACCT 196 Auditing ........................................ 3
A. ACCT 291 Individual Income Taxation ..........3
B. ACCT 292 Corporate Income Taxation ..........3
C. BSAD 213 Business Law ..........3
D. OPAD 223 Word Processing I ..........3
E. ENGL 291 Technical Writing* ..........3
F. CIS 235 Networking and Telecomm ..........3
G. CIS 245 Computer Operating Systems ..........3

*See ENGL 291 course description

ADVERTISING ART
(Applied Communication Design)

A two-year Associate of Applied Science Degree Program

70 credit hours required to graduate

About Our Program

The program in advertising art trains today's artists and designers in the communication medium of the future as well as the present: computer-aided communication design. Students work with the state-of-the-art hardware and software, creating professional-level publishing, graphics, illustration, animation and imaging. Students also design software and human interface applications. Leading-edge industries support the program fiscally and act as a source of referral and employment for our graduates.

Apple Computer has named the CCCC Advertising Art area one of only three Apple Multimedia Regional Centers in a three-state area. The high visibility of this center will enhance CCCC graduates' employment possibilities.

Advertising Art offers an Associate of Applied Science degree and three certificates in Computer Graphics, Illustration and Production Art. Students receive a strong background in traditional graphics skills together with state-of-the-art training in electronic publishing, imaging, graphics, 3D modeling, animation and interactive multimedia. A student ad agency and an active internship program help to bridge the gap from formal training to full-time employment.

Students completing the two-year Commercial Art program in the Plano ISD or the two-year Commercial Art Cluster at Skyline High School may be eligible to receive credit through articulation. Check "Customized Articulation Program" in this catalog.

Career Opportunities

Jobs in the Advertising Art area are varied and depend upon the business or agency specialty. Listed below are some of the career opportunities:

- production artist
- graphic designer
- art director
- illustrator
- computer graphics production artist
- computer illustrator
- multi-media director/author
- computer animator
- computer visualization artist

Articulation/Transfer Agreement

Formal articulation and/or transfer agreements have been established allowing graduates with an Associate of Applied Science degree to continue their education in bachelor's degree programs at specific four-year universities. For detailed information contact the coordinator of the A.A.S. program or the director of articulation and transfer programs.

Associate of Applied Science Degree Requirements Advertising Art

I. General Education Core Credit Hours
   (22 credit hours)
   A. ENGL 151 Composition/Rhetoric I ..........3
   B. SPCM 151 Fundamentals of Speech Communication ..........3
   C. MATH 150 Contemporary Mathematics ..........3
   D. ECON 121 Intro. to Economics or ..........3
       ECON 291 Principles of Economics - Macro ..........3
   E. PSYC 121 Applied Psychology or ..........3
   PSYC 151 General Psychology ..........3
   F. HUM 151 Introduction to Humanities ..........3
   G. CPSC 150 Introduction to Computers ..........3
   H. HPED Any Activity Course ..........1

II. Technical Program Core Credit Hours
   (36 credit hours)
   A. ADV 190 Survey of Advertising Art ..........3
   B. ADV 140 Intro. to Computer Graphics ..........3
   C. ADV 141 Creative Problem Solving ..........3
   D. ADV 287 Visual Communications I ..........3
   E. ADV 288 Visual Communications II ..........3
F. ADV 296 Advanced Computer Illustration or ... 3
ADV 233 Electronic Publishing for .......................... 3
G. ADV 294 Professional Practices ........................ 3
H. ADV 295 Ad Agency ................................. 3
I. ADV 700 Cooperative Education I ....................... 3
J. ART 191 Design I ....................................... 3
K. ART 193 Drawing I ....................................... 3
L. PHO 180 Photography I .................................. 3

III. Electives
(12 credit hours)
A. ADV 142 Intro. to Electronic Imaging ........................ 3
B. ADV 143 Computer Typography ........................... 3
C. ADV 144 Intro. to Interactive Multimedia Authoring
D. ADV 208 Sketching for Illustration ........................ 3
E. ADV 223 Intro. to Art Direction for Video ............... 3
F. ADV 232 Image Processing I ................................ 3
G. ADV 233 Electronic Publishing for Graphic Design
H. ADV 236 2D Computer Animation ........................ 3
I. ADV 289 Computer Illustration .............................. 3
J. ADV 290 Graphic Design and Production ................. 3
K. ADV 292 Illustration ....................................... 3
L. ADV 296 Advanced Computer Illustration ................. 3
M. ART 194 Drawing II ....................................... 3
N. ART 196 Design III/Color Theory .......................... 3
O. ART 286 Printmaking I ..................................... 3
P. ART 291 Painting I ......................................... 3
Q. ART 293 Watercolor I ....................................... 3
R. ART 297 Life Drawing ....................................... 3
S. MRKT 126 Fashion Design .................................. 3
T. PHO 181 Photography II .................................... 3
U. PHO 291 News Photography ................................ 3

D. ADV 190 Survey of Advertising Art ......................... 3
E. ADV 223 Intro. to Art Direction for Video ............... 3
G. ADV 233 Electronic Publishing for Graphic Design
H. ADV 287 Visual Communication I .......................... 3
I. ADV 288 Visual Communication II or ..................... 3
J. ADV 294 Professional Practices ............................ 3
K. ADV 295 Ad Agency ......................................... 3
L. ART 191 Design I ......................................... 3
M. ART 193 Drawing I ......................................... 3
N. ENGL 151 Composition/Rhetoric ........................... 3
O. ELECTIVE Select one:
ADV 144 Intro. to Multimedia Authoring .................... 3
ADV 232 Image Processing I .................................. 3
ADV 289 Computer Illustration ............................... 3
ADV 290 Graphic Design and Production ..................... 3
ADV 292 Illustration ......................................... 3
ADV 293 Advanced Illustration ............................... 3
ADV 236 2D Computer Animation ............................ 3
ADV 208 Sketching for Illustration .......................... 3
ADV 296 Advanced Computer Illustration .................... 3
ART 194 Drawing II ......................................... 3
ART 196 Design III/Color Theory ............................. 3
ART 297 Life Drawing ......................................... 3
PHO 180 Photography I ....................................... 3
PHO 181 Photography II ...................................... 3

Certificate Requirements: Illustration
(36 credit hours)
A. ADV 141 Creative Problem Solving ........................ 3
B. ADV 190 Survey of Advertising Art ......................... 3
C. ADV 287 Visual Communications I ........................ 3
D. ADV 288 Visual Communications II ........................ 3
E. ADV 292 Illustration ....................................... 3
F. ADV 294 Professional Practices ............................ 3
G. ADV 295 Ad Agency ......................................... 3
H. ART 191 Design I ......................................... 3
I. ART 193 Drawing I ......................................... 3
J. ART 194 Drawing II ....................................... 3
K. ENGL 151 Composition/Rhetoric I ........................ 3
L. ELECTIVE: Select one:
ADV 140 Intro. to Computer Graphics ......................... 3
ADV 142 Intro. to Electronic Imaging ......................... 3
ADV 143 Computer Typography ................................ 3

Advertising Art (Applied Communication Design)
Certificate Programs
(36–45 credit hours)
Certificate Requirements: Computer Graphics
(45 credit hours)
A. ADV 140 Intro. to Computer Graphics ........................ 3
B. ADV 141 Creative Problem Solving ........................ 3
C. ADV 143 Computer Typography ............................. 3
ADV 208 Sketching for Illustration 3
ADV 231 Advertising Computer Graphics 3
ADV 236 2D Computer Animation 3
ADV 289 Computer Illustration 3
ADV 290 Graphic Design and Production 3
ADV 296 Adv. Computer Illustration 3
ART 196 Design III/Color Theory 3
ART 291 Painting 3
ART 293 Watercolor I 3
ART 297 Life Drawing 3
MRKT 126 Fashion Design 3
PHO 180 Photography I 3

Certificate Requirements: Photography
(42 credit hours)

A. ADV 140 Intro. to Computer Graphics 3
B. ADV 141 Creative Problem Solving 3
C. ADV 190 Survey of Advertising Art 3
D. ADV 287 Visual Communication I 3
E. ADV 288 Visual Communication II 3
F. ADV 294 Professional Practices 3
G. ADV 295 Ad Agency 3
H. ART 191 Design I 3
I. ART 192 Design II 3
J. ENGL 151 Composition/Rhetoric I 3
K. PHO 180 Photography I 3
L. PHO 181 Photography II 3
M. PHO 291 News Photography 3
N. Elective: Select one:
   ADV 142 Intro. to Electronic Imaging 3
   ADV 231 Advertising Computer Graphics 3
   ADV 289 Computer Illustration 3
   ADV 290 Graphic Design and Production 3
   ADV 292 Illustration 3
   ADV 296 Advanced Computer Illustration 3

Certificate Requirements: Production Art
(39 credit hours)

A. ADV 140 Intro. to Computer Graphics 3
B. ADV 141 Creative Problem Solving 3
C. ADV 143 Computer Typography 3
D. ADV 190 Survey of Advertising Art 3
E. ADV 233 Electronic Publishing for Graphic Design 3
F. ADV 287 Visual Communication I 3
G. ADV 290 Graphic Design and Production 3
H. ADV 294 Professional Practices 3
I. ADV 295 Ad Agency 3
J. ART 191 Design I 3
K. ART 193 Drawing I 3
L. ENGL 151 Composition/Rhetoric I 3
M. Elective: Select one:
   ADV 142 Intro. to Electronic Imaging 3
   ADV 144 Intro. to Interactive Multimedia Authoring 3
   ADV 231 Advertising Computer Graphics 3
   ADV 236 2D Computer Animation 3
   ADV 288 Visual Communication II 3
   ADV 289 Computer Illustration 3
   ADV 292 Illustration 3
   ADV 296 Advanced Computer Illustration 3

Art
A two-year associate of arts degree program

60 credit hours required to graduate

About our program

The fine arts program offers courses in foundation classes such as drawing and design and specialization classes such as painting, watercolor, ceramics, sculpture and printmaking. All labs include professional quality equipment such as an intaglio printing press, a variety of ceramic kilns, electric pottery wheels and a metal-casting foundry. Two gallery spaces serve to acquaint students with current professional artists and to showcase student work in competitions and all-student shows. Seminars in professional practices help prepare the students to function as fine artists. Instructors who are highly trained, practicing artists are dedicated to encouraging the individual students to reach their highest level of skill and creativity.

Career opportunities

Careers in fine arts are quite varied. Perhaps the most visible are the practicing, professional fine artists and art teachers. Other career opportunities include work in museums as docents; museum curators; art historians; art restorers; exhibition designers; sales positions in galleries; artists representatives; art brokers; art therapists; medical illustrators; art administrators and directors of cultural arts programs; color, space or texture consultants; commercial artists; illustration and design of books and advertising; window display; interior design; fabric, wall and floor covering design.
ASSOCIATE OF ARTS DEGREE REQUIREMENTS

I. General Education Core
   See page 40 for General Education Core requirements.

II. Recommended Electives  Credit Hours
(14–16 credit hours)
A. ART 190 Art Appreciation 3
B. ART 191 Design I 3
C. ART 192 Design II 3
D. ART 193 Drawing I 3
E. ART 194 Drawing II 3
F. ART 195 Problems in Contemporary Art 3
G. ART 196 Design III Color Theory 3
H. ART 249 Art for Elementary Educators 3
I. ART 281 Sculpture I 3
J. ART 282 Sculpture II 3
K. ART 283 Ceramics I 3
L. ART 284 Ceramics II 3
M. ART 285 Printmaking I 3
N. ART 286 Printmaking II 3
O. ART 291 Painting I 3
P. ART 292 Painting II 3
Q. ART 293 Watercolor I 3
R. ART 294 Watercolor II 3
S. ART 295 Art History I 3
T. ART 296 Art History II 3
U. ART 297 Life Drawing 3
V. ART 298 Fibers I 3
W. ART 299 Fibers II 3

BIOLOGY
A TWO-YEAR ASSOCIATE OF SCIENCE DEGREE PROGRAM

60 CREDIT HOURS REQUIRED TO GRADUATE

ABOUT OUR PROGRAM
Today, more than ever, an understanding of biology is critical to human life and the future of the planet. Fast-paced developments in medicine, genetics and environmental issues can be bewildering without basic knowledge of biological science. The Associate of Science degree with a biology emphasis provides an educational foundation broad enough to prepare students to pursue university studies leading to a bachelor's degree in a science-related field. An excellent instructional staff, computer-aided instruction, state-of-the-art laboratory facilities, and an emphasis on current research give biology students at CCCC a personalized, high quality educational experience.

CAREER OPPORTUNITIES
Many exciting career opportunities are available in the biological sciences. In particular, the areas of health care, genetic research and environmental science are predicted to provide many job opportunities in the coming decade.
Students should bear in mind that many of the career areas listed below require training beyond the Associate of Science degree and some will require a post-graduate degree.

- agriculture
- allied health
- dentistry
- dietary research
- environmental science
- marine science
- medicine
- medical research
- medical technology
- pharmacology research
- pharmacology sales
- physical therapy
- science teaching
- toxicology
- veterinary science
- wildlife biology
- genetic research
- microbiological research

ASSOCIATE OF SCIENCE DEGREE REQUIREMENTS:
BIOLOGY

I. General Education Core
   See page 42 for General Education Core requirements.

II. Recommended Electives  Credit Hours
(14–16 credit hours)
A. BIOL 153 Marine Biology 4
B. BIOL 264 Human Genetics 4
C. BIOL 281 General Botany 4
D. BIOL 283 Invertebrate Zoology 4
E. BIOL 284 Vertebrate Zoology 4
F. BIOL 291 Anatomy and Physiology I 4
G. BIOL 292 Anatomy and Physiology II 4
H. BIOL 293 Microbiology 4
I. BIOL 294 Genetics 4
### CHEMISTRY

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

### 60 credit hours required to graduate

**Our Program**

The CCCC Associate of Science degree with an emphasis in chemistry establishes an academic foundation for future studies. Courses include general chemistry and organic chemistry, as well as an introduction to chemistry designed for students who are novices in science disciplines.

Solving problems in chemistry requires creativity and curiosity as well as logic and reasoning. An excellent instructional staff, computer-aided instruction, laboratory facilities, current scientific literature and regularly held tutorials give chemistry students at CCCC a personalized high quality educational experience.

**Career Opportunities**

Modern society offers both challenging and lucrative careers to employees with scientific and technical backgrounds. Careers listed below demand a knowledge of chemistry and many require academic training beyond the Associate of Science degree.

- biomedical engineer
- chemical engineer
- cosmetics researcher
- dietician
- environmental scientist
- geophysicist
- industrial researcher
- medical technologist
- nurse
- oceanographer
- perfumer
- pharmacist
- physician
- veterinarian

### Associate of Science Degree Requirements: Chemistry

**I. General Education Core**

See page 42 for General Education Core requirements.

**II. Recommended Electives**  

<table>
<thead>
<tr>
<th>Credit Hrs</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**A. CHEM 193** Biochemistry  ............................................  1

**B. CHEM 291** Organic Chemistry I  4

---

### BUSINESS Administration

**A two-year Associate of Arts degree program**

### 60 credit hours required to graduate

**About Our Program**

The Associate of Arts with emphasis in Business Administration program consists of a forty-six credit hour general education core and fifteen credit hours of suggested electives. The program is designed to provide the basis for completing a bachelor’s degree at most four-year colleges or universities located in Texas. This program provides flexibility allowing students to pursue accounting, economics, finance, marketing or management majors at many four-year institutions.

**Career Opportunities**

This program is designed primarily to prepare student to major in some area of business administration at the junior/senior level. Students should consult an adviser if this is not their primary goal.

### Associate of Arts Degree Requirements: Business Administration

**I. General Education Core**

See page 40 for General Education Core requirements.

**II. Recommended Electives**  

<table>
<thead>
<tr>
<th>Credit Hrs</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**A. ECON 291** Principles of Economics-Macro  3

**B. ECON 292** Principles of Economics-Micro  3

**C. ACCT 191** Principles of Accounting I  3

**D. ACCT 192** Principles of Accounting II  3

**E. CIS 130** BASIC Programming  3

**F. ENGL 252** Forms of Literature II  3

**G. PSYC 151** General Psychology  3

**H. MATH 152** Calculus for Business and Econ.  3

**I. MATH 153** Statistics  3

*Math 151 recommended in general education core*
C. CHEM 292 Organic Chemistry .................. 4
D. PHYS 291 College Physics I .................. 4
E. PHYS 292 College Physics II .................. 4
F. MATH 291 Calculus III .................. 4
G. MATH 293 Differential Equations .......... 3

**CHILD DEVELOPMENT**

**EARLY CHILDHOOD ADMINISTRATOR**

A two-year Associate of Applied Science degree program

66-67 credit hours required to graduate

**OUR PROGRAM**

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

The classroom learning experiences are supplemented by laboratory activities. Students receive training in observation and evaluation procedures; practice the skills necessary for planning, organizing, communicating and supervising; and learn to work cooperatively with parents and community services.

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

**Note:** Students completing the two-year Child Care Development program at Denton ISD, Lewisville ISD, or Plano ISD may be eligible to receive articulated credit. See “Customized Articulation Programs” in this catalog.

**CAREER OPPORTUNITIES**

The Associate of Applied Science degree in Child Development with an Early Childhood 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 to a variety of facilities including:

- child 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
- teacher’s aide
- director, assistant director, manager or educational coordinator in children’s programs

**ARTICULATION/TRANSFER AGREEMENT**

Formal articulation and/or transfer agreements have been established allowing graduates with an Associate of Applied Science degree to continue their education in bachelor’s degree programs at specific four-year universities. For detailed information contact the coordinator of the A.A.S. program or the director of articulation and transfer programs.

**ASSOCIATE OF APPLIED SCIENCE DEGREE REQUIREMENTS: EARLY CHILDHOOD ADMINISTRATOR**

**I. General Education Core**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. ENGL 151</td>
<td>Composition/Rhetoric</td>
<td>3</td>
</tr>
<tr>
<td>B. SPCM 151</td>
<td>Fundamentals of Speech Com.</td>
<td>3</td>
</tr>
<tr>
<td>C. MATH 150</td>
<td>Contemporary Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>D. ECON 121</td>
<td>Introduction to Economics or</td>
<td>3</td>
</tr>
<tr>
<td>E. PSYC 121</td>
<td>Applied Psychology or</td>
<td>3</td>
</tr>
<tr>
<td>G. CPSC 150</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>H. HPED</td>
<td>Activity Course</td>
<td>1</td>
</tr>
</tbody>
</table>

**II. Technical Program Core**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. CHDV 151</td>
<td>Early Child Dev. (0-3 yrs)</td>
<td>3</td>
</tr>
<tr>
<td>B. CHDV 152</td>
<td>Early Child Dev. (3-5 yrs)</td>
<td>3</td>
</tr>
<tr>
<td>C. CHDV 153</td>
<td>Early Childhood Programs and Services</td>
<td>3</td>
</tr>
<tr>
<td>D. CHDV 154</td>
<td>Nutrition, Health, and Safety</td>
<td>3</td>
</tr>
<tr>
<td>E. CHDV 157</td>
<td>Practicum A</td>
<td>3</td>
</tr>
<tr>
<td>F. CHDV 161</td>
<td>Early Childhood Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>G. CHDV 251</td>
<td>Child Guidance</td>
<td>3</td>
</tr>
<tr>
<td>H. CHDV 252</td>
<td>Child Abuse Prevention</td>
<td>3</td>
</tr>
<tr>
<td>I. CHDV 257</td>
<td>Parents and the Caregiver</td>
<td>3</td>
</tr>
</tbody>
</table>

**III. Major Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. CHDV 253</td>
<td>Administration of Early Childhood Programs</td>
<td>3</td>
</tr>
<tr>
<td>B. CHDV 254</td>
<td>Organization and Management of Early Childhood Program</td>
<td>3</td>
</tr>
</tbody>
</table>
IV. Electives
(minimum 6 credit hours)
A. CHDV 155 Material and Activities Development I 4
B. CHDV 156 Material and Activities Development II 4
C. CHDV 159 Infant and Toddler Material and Activities Development 3
D. CHDV 160 Child Development (5-12 yrs). 3
E. CHDV 255 Internship 3
F. CHDV 256 Cooperative Education 3
G. CHDV 297 Selected Topics in Child Development 1

C. CHDV 158 Practicum B 3
D. SBMT 121 Small Business Management 3

IV. Electives
(minimum 6 credit hours)
A. CHDV 155 Material and Activities Development I 4
B. CHDV 156 Material and Activities Development II 4
C. CHDV 159 Infant and Toddler Material and Activities Development 3
D. CHDV 160 Child Development (5-12 yrs). 3
E. CHDV 255 Internship 3
F. CHDV 256 Cooperative Education 3
G. CHDV 297 Selected Topics in Child Development 1

CHILD DEVELOPMENT
EARLY CHILDHOOD EDUCATOR
A two-year Associate of Applied Science degree program
66–67 credit hours required to graduate.

ABOUT OUR PROGRAM
The degree program in Child Development with a major in Early Childhood Educator offers students an in-depth study of children from birth to 12 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 teaching. 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 adviser.

Note: Students completing the two-year Child Development program at Denton ISD, Lewisville ISD, or Plano ISD may be eligible to receive articulated credit. See "Customized Articulation Programs" in this catalog.

CAREER OPPORTUNITIES
The degree program in Child Development with an Early Childhood Educator major provides practical skills for working with young children. Students will receive necessary training for employment in such areas as:
- child 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
- in-home care giver or nanny
- teacher's aide

ARTICULATION/TRANSFER AGREEMENT
Formal articulation and/or transfer agreements have been established allowing graduates with an Associate of Applied Science degree to continue their education in bachelor's degree programs at specific four-year universities. For detailed information contact the coordinator of the A.A.S. program or the director of articulation and transfer programs.

ASSOCIATE OF APPLIED SCIENCE DEGREE REQUIREMENTS: EARLY CHILDHOOD EDUCATOR

I. General Education Core

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
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<tbody>
<tr>
<td>A. ENGL 151 Composition/Rhetoric I</td>
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</tr>
<tr>
<td>B. SPCM 151 Fundamentals of Speech Communication</td>
<td>3</td>
</tr>
<tr>
<td>C. MATH 150 Contemporary Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>D. ECON 121 Introduction to Economics or ECON 291 Principles of Economics–Macro</td>
<td>3</td>
</tr>
<tr>
<td>E. PSYC 121 Applied Psychology or PSYC 151 General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>F. HUM 151 Introduction to Humanities</td>
<td>3</td>
</tr>
<tr>
<td>G. CPSC 150 Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>H. HPED Any Activity Course</td>
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</table>

II. Technical Program Core

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. CHDV 151 Early Child Dev. (0-3 yrs)</td>
<td>3</td>
</tr>
<tr>
<td>B. CHDV 152 Early Child Dev. (3-5 yrs)</td>
<td>3</td>
</tr>
<tr>
<td>C. CHDV 153 Early Childhood Programs and Services</td>
<td>3</td>
</tr>
<tr>
<td>D. CHDV 154 Nutrition, Health, and Safety</td>
<td>3</td>
</tr>
<tr>
<td>E. CHDV 157 Practicum A</td>
<td>3</td>
</tr>
<tr>
<td>F. CHDV 161 Early Childhood Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>G. CHDV 251 Child Guidance</td>
<td>3</td>
</tr>
<tr>
<td>H. CHDV 252 Child Abuse Prevention</td>
<td>3</td>
</tr>
<tr>
<td>I. CHDV 257 Parents and the Caregiver</td>
<td>3</td>
</tr>
</tbody>
</table>
III. Major Courses
(11 credit hours)
A. CHDV 155 Material and Activities Development I 4
B. CHDV 156 Material and Activities Development II 4
C. CHDV 158 Practicum B 3

IV. Electives
(minimum 6 credit hours)
A. CHDV 159 Infant and Toddler Materials and Activity Development 3
B. CHDV 160 Child Development (5-12 yrs) 3
C. CHDV 255 Internship 3
D. CHDV 256 Cooperative Education 3
E. CHDV 257 Selected Topics in Child Development 1
F. CHDV 253 Administration of Early Childhood Programs 3
G. CHDV 254 Organization and Management of Early Childhood Programs 3

CHILD DEVELOPMENT CERTIFICATE PROGRAMS
(33–35 CREDIT HOURS)

ABOUT OUR PROGRAMS:
The Child Development Certificate programs are one-year curriculums designed to prepare individuals for entry-level positions working with young children and their families. The course work can also be applicable as in-service training for teachers, administrators, nannies and family day home providers.

I. General Education Core Credit Hours
(9 credit hours)
A. ENGL 151 Composition/Rhetoric 1 3
B. SPCM 151 Fundamentals of Speech Communication 3
C. MATH 150 Contemporary Mathematics 3

II. Technical Program Core
(18 credit hours)
A. CHDV 151 Early Child Dev. (0-3) or 3
CHDV 152 Early Child Dev. (3-5) 3
B. CHDV 161 Early Childhood Fundamentals 3
C. CHDV 251 Child Guidance 3
D. CHDV 154 Nutrition, Health and Safety 3
E. CHDV 257 Parents and The Caregiver 3
F. CHDV 157 Practicum A 3

III. Major Courses
(6–8 credit hours)
Early Childhood Administrator Majors
A. CHDV 253 Administration of Early Childhood Programs 3
B. CHDV 254 Organization and Management of Early Childhood Programs 3

Early Childhood Educator Majors
A. CHDV 155 Material and Activities Dev. I 4
B. CHDV 156 Material and Activities Dev. II 4

Note: Pending approval of the Texas Higher Education Coordinating Board

COMPUTER INFORMATION SYSTEMS
BUSINESS PROGRAMMING

A TWO-YEAR ASSOCIATE OF APPLIED SCIENCE DEGREE PROGRAM
64 CREDIT HOURS 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 obtain 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 adviser.
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 competences 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.

ARTICULATION/TRANSFER AGREEMENT

Formal articulation and/or transfer agreements have been established allowing graduates with an Associate of Applied Science degree to continue their education in bachelor's degree programs at specific four-year universities. For detailed information contact the coordinator of the A.A.S. program or the director of articulation and transfer programs.

ASSOCIATE OF APPLIED SCIENCE DEGREE

REQUIREMENTS: COMPUTER INFORMATION SYSTEMS/BUSINESS PROGRAMMING

I. General Education Core

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 151</td>
<td>Composition/Rhetoric I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 151</td>
<td>Pre-Calculus for Bus/Econ.</td>
<td>3</td>
</tr>
<tr>
<td>CPSC 150</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>HUM 151</td>
<td>Introduction to Humanities</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 121</td>
<td>Applied Psychology or</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 151</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>ECON 291</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>SPCM 151</td>
<td>Fundamentals of Speech Comm.</td>
<td>3</td>
</tr>
<tr>
<td>HPED</td>
<td>Any Activity Course</td>
<td>1</td>
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</tbody>
</table>

II. Technical Program Core

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>CIS 130</td>
<td>BASIC Programming</td>
<td>3</td>
</tr>
<tr>
<td>CIS 200</td>
<td>COBOL I</td>
<td>3</td>
</tr>
<tr>
<td>CIS 222</td>
<td>Systems Analysis and Design</td>
<td>3</td>
</tr>
<tr>
<td>CIS 235</td>
<td>Networking/Telecommunications</td>
<td>3</td>
</tr>
<tr>
<td>CIS 245</td>
<td>Computer Operating System</td>
<td>3</td>
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</table>

III. Major Courses

(21 credit hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>CIS 140</td>
<td>RPG Programming</td>
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</tr>
<tr>
<td>CIS 205</td>
<td>COBOL II</td>
<td>3</td>
</tr>
<tr>
<td>CIS 224</td>
<td>Information Systems Mgmt</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 191</td>
<td>Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 192</td>
<td>Principles of Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 291</td>
<td>Technical Writing*</td>
<td>3</td>
</tr>
<tr>
<td>MATH 152</td>
<td>Calculus for Bus/Econ</td>
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</tr>
</tbody>
</table>

*See ENGL 291 course description.

IV. Electives

(minimum 6 credit hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 121</td>
<td>Computer Graphics Systems</td>
<td>3</td>
</tr>
<tr>
<td>CIS 128</td>
<td>Microcomputer Concepts</td>
<td>3</td>
</tr>
<tr>
<td>CIS 210</td>
<td>Data Structures for Business</td>
<td>3</td>
</tr>
<tr>
<td>CIS 220</td>
<td>Integrated Spreadsheet App.</td>
<td>3</td>
</tr>
<tr>
<td>CIS 225</td>
<td>Desktop Publishing</td>
<td>3</td>
</tr>
<tr>
<td>CIS 230</td>
<td>Desktop Publishing</td>
<td>3</td>
</tr>
<tr>
<td>CIS 297</td>
<td>Special Topics in CIS I</td>
<td>3</td>
</tr>
<tr>
<td>CIS 298</td>
<td>Special Topics in CIS II</td>
<td>3</td>
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<tr>
<td>CIS 700</td>
<td>Cooperative Education I</td>
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<td>CIS 705</td>
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<tr>
<td>BSAD 121</td>
<td>Introduction of Business</td>
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<tr>
<td>CPSC 190</td>
<td>Programming Concepts I</td>
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</tr>
<tr>
<td>CPSC 191</td>
<td>Programming Concepts II</td>
<td>3</td>
</tr>
</tbody>
</table>

COMPUTER INFORMATION SYSTEMS

COMPUTER SYSTEMS

A TWO-YEAR ASSOCIATE OF APPLIED SCIENCE DEGREE PROGRAM

64 CREDIT HOURS REQUIRED TO GRADUATE

ABOUT OUR PROGRAM

The area of computer information systems is an exciting field that presents many opportunities for a student who is proficient in both applications and business programming. The skills acquired in this program will enable the student to solve problems that are encountered when working in this ever-changing and growing field. Ten certificates are offered that can be a part of this degree. After completing one or more certificates students can continue at Collin...
County Community College and receive an Associate of Applied Science degree.

The degree program in Computer Information Systems is for persons who want to obtain the entry level skills and knowledge necessary for the demands of today's business and industry needs. Areas of study include:

- microcomputer applications
- financial skills
- business programming
- management skills
- technical skills

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

**Career Opportunities**

Students in the Computer Systems option program will receive basic instruction and pre-employment training for positions requiring high degrees of skill and technical knowledge. The certificates will provide the knowledge to update current job requirements. The skills acquired will be directly applicable in a variety of business and industry jobs, a few of which are:

- manufacturing firms
- computer centers
- governmental agencies
- accounting firms
- microcomputer support firms
- transportation industry
- financial firms

**Articulation/Transfer Agreement**

Formal articulation and/or transfer agreements have been established allowing graduates with an Associate of Applied Science degree to continue their education in bachelor’s degree programs at specific four-year universities. For detailed information contact the coordinator of the A.A.S. program or the director of articulation and transfer program.

**Associate of Applied Science Degree Requirements; Computer Information Systems/Computer Systems**

I. General Education Core  Credit Hours

(22 credit hours)

A. ECON 291 Principles of Economics—Macro ........3
B. ENGL 151 Composition/Rhetoric I ........3
C. HUM 151 Intro. to Humanities ........3
D. MATH 151 Pre-Calculus for Bus./Econ........3
E. PSYC 121 Applied Psychology or ........3
   PSYC 151 General Psychology ........3
F. SPCM 151 Fund of Speech Comm ........3
G. CPSC 150 Intro. to Computers ........3
H. HPED  Any Activity Come ........1

II. Technical Program Core

(15 credit hours)

A. OFAD 223 Word Processing I ........3
B. CIS 130 BASIC Programming ........3
C. CIS 220 Integrated Spreadsheet Appl ........3
D. CIS 230 Database Applications ........3
E. CIS 224 Information Systems Mgmt ........3

III. Electives

(27 credit hours—may consist of certificate requirements)

A. CIS 121 Computer Graphics System ........3
B. CIS 128 Microcomputer Concepts ........3
C. CIS 140 RPG Programming ........3
D. CIS 200 COBOL I ........3
E. CIS 205 COBOL II ........3
F. CIS 210 Data Structures for Bus ........3
G. CIS 222 Systems Analysis and Design ........3
H. CIS 225 Desktop Publishing ........3
I. CIS 235 Networking and Telecomm ........3
J. CIS 245 Computer Operating Systems ........3
K. CIS 297 Special Topics in CIS ........3
L. CIS 700 Cooperative Education I ........3
M. CIS 705 Cooperative Education II ........3
N. ACCT 191 Principles of Accounting I ........3
O. BSAD 228 Organizational Behavior ........3
P. BSAD 122 Principles of Management ........3
Q. CPSC 190 Programming Concepts I ........3
R. CPSC 191 Programming Concepts II ........3
S. ENGL 291 Technical Writing* ........3
T. ACCT 131 Elementary Accounting ........3

*See ENGL 291 course description.
A TWO-YEAR ASSOCIATE OF APPLIED SCIENCE DEGREE PROGRAM

64 CREDIT HOURS 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 the 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 1-2-3, 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

Note: Students planning to transfer to a four-year institution should check with an academic adviser.

CAREER OPPORTUNITIES

Students in the Microcomputer Applications option will prepare for entry into the work force 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
- computer Applications accentuates the entry level technical skills necessary for the demands of today's business and industry needs. These skills are:
- management skills—systems analysis and design, applied psychology and database design techniques are used to enhance effective management decisions

Note: Students planning to transfer to a four-year institution should check with an academic adviser.

CAREER OPPORTUNITIES

Students in the Microcomputer Applications option will prepare for entry into the work force 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
- microprogrammer—design new programs and modify existing programs using microcomputer business languages
- PC service representative—support networking and the micro telecommunications industry

ARTICULATION/TRANSFER AGREEMENT

Formal articulation and/or transfer agreements have been established allowing graduates with an Associate of Applied Science degree to continue their education in bachelor's degree programs at specific four-year universities. For detailed information contact the coordinator of the A.A.S. program or the director of articulation and transfer programs.

ASSOCIATE OF APPLIED SCIENCE DEGREE

REQUIREMENTS: COMPUTER INFORMATION SYSTEMS/MICROCOMPUTER APPLICATIONS

I. General Education Core Credit Hours (22 credit hours)

A. ENGL 151 Composition/Rhetoric I .......... 3
B. MATH 151 Pre-Calculus for Bus./Econ .......... 3
C. CPSC 150 Introduction to Computers .......... 3
D. HUM 151 Introduction to Humanities .......... 3
E. PSYC 121 Applied Psychology or .......... 3
F. PSYC 151 General Psychology .......... 3
G. SPCM 151 Fundamentals of Speech Corn. .......... 3
H. HPED Any Activity Course .......... 1

II. Technical Program Core (15 credit hours)

A. CIS 128 Microcomputer Concepts .......... 3
B. CIS 130 BASIC Programming .......... 3
C. CIS 224 Information Systems Mgmt. .......... 3
D. CIS 245 Computer Operating Systems .......... 3
E. CIS 235 Networking and Telecomm .......... 3

III. Major Courses (21 credit hours)

A. CIS 121 Computer Graphics .......... 3
B. CIS 220 Integrated Spreadsheet Appl. .......... 3
C. CIS 225 Desktop Publishing .......... 3
D. CIS 230 Database Applications .......... 3
E. OFAD 223 Word Processing I .......... 3
F. ACCT 191 Principles of Accounting I .......... 3
G. BSAD 121 Introduction to Business .......... 3
IV. Electives

(minimum 6 credit hours)

A. CIS 140 RPG Programming ................. 3
B. CIS 200 COBOL I ....................... 3
C. CIS 205 COBOL II ..................... 3
D. CIS 210 Data Structures for Business ....... 3
E. CIS 222 Systems Analysis and Design ....... 3
F. CIS 297 Special Topics in CIS I ............ 3
G. CIS 298 Special Topics in CIS II ........... 3
H. CIS 700 Cooperative Education I .......... 3
I. CIS 705 Cooperative Education II .......... 3
J. BSAD 122 Principles of Management ........ 3
K. BSAD 228 Organizational Behavior ........ 3

**Computer Information Systems**

**Certification Programs**

(12–24 credit hours)

**Certificate Requirements: BASIC Programming**

(12 credit hours)

A. CIS 130 BASIC Programming .............. 3
B. CIS 128 Microcomputer Concepts .......... 3
C. CIS 245 Computer Operating Systems ...... 3
D. CIS 222 Systems Analysis and Design .... 3

**Certificate Requirements: COBOL Programming**

(18 credit hours)

A. CIS 128 Microcomputer Concepts .......... 3
B. CIS 130 BASIC Programming .............. 3
C. CIS 200 COBOL I ....................... 3
D. CIS 222 Systems Analysis and Design .... 3
E. CIS 245 Computer Operating Systems ...... 3
F. CIS 205 COBOL II ..................... 3

**Certificate Requirements: Computer Applications**

(24 credit hours)

A. CIS 128 Microcomputer Concepts .......... 3
B. CIS 130 BASIC Programming .............. 3
C. CIS 220 Integrated Spreadsheet App. ....... 3
D. CIS 224 Info., Systems Management ...... 3
E. CIS 225 Desktop Publishing ............... 3
F. CIS 230 Database Applications ........... 3
G. ACCT 131 Elementary Accounting or .... 3
  ACCT 191 Principles of Accounting I ...... 3
H. OFAD 223 Word Processing I .............. 3

**Certificate Requirements: Computer Operating Systems**

(15 credit hours)

A. CPSC 150 Intro. to Computers .............. 3
B. CIS 128 Microcomputer Concepts ........... 3
C. CIS 130 BASIC Programming .............. 3
D. CIS 222 Systems Analysis and Design ...... 3
E. CIS 245 Computer Operating Systems ...... 3

**Certificate Requirements: Database Applications**

(12 credit hours)

A. CIS 130 BASIC Programming .............. 3
B. CIS 128 Microcomputer Concepts .......... 3
C. CIS 230 Database Applications .......... 3
D. CIS 222 Systems Analysis and Design .... 3

**Certificate Requirements: Desktop Publishing**

(12 credit hours)

A. CIS 121 Computer Graphics Systems ...... 3
B. CIS 128 Microcomputer Concepts .......... 3
C. CIS 225 Desktop Publishing ............... 3
D. OFAD 223 Word Processing I .............. 3

**Certificate Requirements: Information Systems Management**

(24 credit hours)

A. CIS 128 Microcomputer Concepts .......... 3
B. CIS 130 BASIC Programming .............. 3
C. CIS 220 Integrated Spreadsheet App. ....... 3
D. CIS 224 Info., Systems Management ...... 3
E. CIS 230 Database Applications .......... 3
F. ACCT 191 Principles of Accounting I .... 3
G. BSAD 228 Organizational Behavior ...... 3
H. OFAD 223 Word Processing I .............. 3

**Certificate Requirements: Integrated Spreadsheets**

(12 credit hours)

✓ A. CIS 128 Microcomputer Concepts .......... 3
✓ B. CIS 220 Integrated Spreadsheet App. ...... 3
✓ C. ACCT 191 Principles of Accounting I .... 3
✓ D. OFAD 223 Word Processing I .............. 3
CERTIFICATE REQUIREMENTS NETWORKING AND TELECOMMUNICATIONS

(18 CREDIT HOURS)

A. CPSC 150 Introduction to Computers ................. 3
B. CIS 130 Basic Programming ....................... 3
C. CIS 235 Networking and Telecomm ................. 3
D. CIS 245 Computer Operating Systems ............ 3
E. CIS 222 Systems Analysis and Design ............ 3
F. CIS 700 Cooperative Education I ................. 3

CERTIFICATE REQUIREMENTS: RPG PROGRAMMING

(15 CREDIT HOURS)

A. CIS 128 Microcomputer Concepts ................. 3
B. CIS 130 BASIC Programming ..................... 3
C. CIS 140 RPG Programming ........................ 3
D. CIS 245 Computer Operating Systems ............ 3
E. CIS 222 Systems Analysis and Design ............ 3

COMPUTER SCIENCE

A TWO-YEAR ASSOCIATE OF SCIENCE DEGREE PROGRAM

60 CREDIT HOURS REQUIRED TO GRADUATE

ABOUT OUR PROGRAM

The accelerating pace of industrial and technological developments has created an ever-increasing demand for highly qualified professionals to formulate and solve the problems of today and the future. The Associate of Science degree with an emphasis in Computer Science discipline. The course work for a BS in Computer Science is similar in most disciplines; however, the student is advised to consult an academic adviser when deciding upon which university he/she wishes to attend and which course of study he/she wishes to pursue.

CAREER OPPORTUNITIES

At the present time, over two-thirds of all the technical and a large percentage of the managerial positions in industry are occupied by software engineers and computer scientists. Our computer science program prepares the students for transfer to a four-year institution where they can specialize in such disciplines as Computer Science Computer Software Engineering.

ASSOCIATE OF SCIENCE DEGREE REQUIREMENTS: COMPUTER SCIENCE

I. General Education Core

See page 42 for General Education Core requirements.

II. Recommended Electives

Credit Hours

(14-16 credit hours)

A. ENGL 291 Technical Writing* ................. 3
B. MATH 292 Linear Algebra ....................... 3
C. CPSC 190 Programming Concepts I ............ 3
D. CPSC 191 Programming Concepts II .......... 3
E. CPSC 210 Assembly Language .................. 3
F. CPSC 292 Scientific Programming ............... 3
G. CPSC 135 C Programming ...................... 3
H. ENGL 200 Literature ............................. 3
I. PHIL 152 Logic .................................... 3

* See ENGL 291 course description

COMPUTER SCIENCE SOFTWARE DEVELOPMENT

A TWO-YEAR ASSOCIATE OF APPLIED SCIENCE DEGREE PROGRAM

65 CREDIT HOURS REQUIRED TO GRADUATE

ABOUT OUR PROGRAM

The development and use 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 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 adviser.

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. Careers available for the graduate include:

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

ARTICULATION/TRANSFER AGREEMENT

Formal articulation and/or transfer agreements have been established allowing graduates with an Associate of Applied
ABOUT OUR PROGRAM

The Criminal Justice Program prepares its graduates for entry-level positions in law enforcement, court services, and corrections at the local, state, and federal levels of government. Through classroom and laboratory experiences students will acquire the fundamental knowledge and skills necessary to understand the criminal justice system, its agencies, personnel and functions. Students planning to transfer to a four-year institution will have a solid foundation upon which to build as they pursue further studies in criminal justice.

CAREER OPPORTUNITIES

Challenging career opportunities await graduates at all levels of government as:
- law enforcement officers
- investigators
- corrections officers
- victim services counselors
- youth service and juvenile court officers

Students planning to transfer to a four-year institution should consult with the coordinator of the criminal justice program.

ASSOCIATE OF ARTS DEGREE REQUIREMENTS: CRIMINAL JUSTICE

I. General Education Core

See page 40 for General Education Core requirements.

II. Recommended Electives

<table>
<thead>
<tr>
<th>Credit Hours</th>
<th>4–16 credit hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. CRJS 151</td>
<td>Crime in America</td>
</tr>
<tr>
<td>B. CRJS 152</td>
<td>Introduction to Criminal Justice</td>
</tr>
</tbody>
</table>
AIDED

ABOUT OUR PROGRAM

CCC's intensive computer aided design (CAD) hands-on opportunities in exciting, highly specialized fields. The degree in Drafting and Computer Aided Design provides both an educational foundation in computer-aided design and insight into current industry practices. Students in CCCC's 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 adviser.

Note: Students completing the two-year Industrial Arts program at Lewisville ISD, McKinney ISD, or Plano ISD may be eligible to receive articulated credit. See "Customized Articulation Programs" in this catalog.

CAREER OPPORTUNITIES

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

- manufacturing firms
- research organizations
- aircraft industry
- governmental agencies
- computer centers
- architectural firms

ARTICULATION/TRANSFER AGREEMENT

Formal articulation and/or transfer agreements have been established allowing graduates with an Associate of Applied Science degree to continue their education in bachelor's degree programs at specific four-year universities. For detailed information contact the coordinator of the A.A.S. program or the director of articulation and transfer programs.

ASSOCIATE OF APPLIED SCIENCE DEGREE REQUIREMENTS: DRAFTING AND COMPUTER AIDED DESIGN

I. General Education Core Credit Hours
(19 credit hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. ENGL 151</td>
<td>Composition/Rhetoric I</td>
<td>3</td>
</tr>
<tr>
<td>B. SPCM 151</td>
<td>Fundamentals of Speech Comm.</td>
<td>3</td>
</tr>
<tr>
<td>C. MATH 181</td>
<td>College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>D. ECON 121</td>
<td>Introduction to Economics</td>
<td>3</td>
</tr>
<tr>
<td>E. PSYC 121</td>
<td>Applied Psychology</td>
<td>3</td>
</tr>
<tr>
<td>F. HUM 151</td>
<td>Introduction to Humanities</td>
<td>3</td>
</tr>
<tr>
<td>G. HPED</td>
<td>Any Activity Course</td>
<td>1</td>
</tr>
</tbody>
</table>

II. Technical Program Core
(14 credit hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. PHYS 191</td>
<td>General Physics I</td>
<td>4</td>
</tr>
<tr>
<td>B. PHYS 192</td>
<td>General Physics II</td>
<td>4</td>
</tr>
<tr>
<td>C. EET 150</td>
<td>AC/DC Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>D. MATH 182</td>
<td>Trigonometry</td>
<td>3</td>
</tr>
</tbody>
</table>

III. Major Courses
(21 credit hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. CAD 151</td>
<td>Technical Graphics I</td>
<td>3</td>
</tr>
<tr>
<td>B. CAD 152</td>
<td>Technical Graphics II</td>
<td>3</td>
</tr>
<tr>
<td>C. CAD 153</td>
<td>Computer Aided Drafting</td>
<td>3</td>
</tr>
<tr>
<td>D. CAD 224</td>
<td>Adv. Computer Aided Drafting</td>
<td>3</td>
</tr>
<tr>
<td>E. CAD 231</td>
<td>Electronic PCB Drafting</td>
<td>3</td>
</tr>
<tr>
<td>F. CAD 235</td>
<td>Manufacturing Processes</td>
<td>3</td>
</tr>
<tr>
<td>G. CIS 121</td>
<td>Computer Graphics Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

IV. Electives
(8-9 credit hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. CAD 220</td>
<td>Technical Illustration</td>
<td>3</td>
</tr>
<tr>
<td>B. CAD 221</td>
<td>Computer Aided Design</td>
<td>3</td>
</tr>
<tr>
<td>C. CAD 232</td>
<td>Descriptive Geometry</td>
<td>3</td>
</tr>
<tr>
<td>D. CAD 236</td>
<td>NC Programming</td>
<td>3</td>
</tr>
<tr>
<td>E. CAD 237</td>
<td>Computer Integrated Mfg.</td>
<td>3</td>
</tr>
<tr>
<td>F. CAD 240</td>
<td>Printed Circuit Design</td>
<td>3</td>
</tr>
<tr>
<td>G. CAD 243</td>
<td>Adv. Printed Circuit Design</td>
<td>3</td>
</tr>
<tr>
<td>H. CAD 255</td>
<td>Appl. in PCB Design</td>
<td>3</td>
</tr>
<tr>
<td>I. CAD 700</td>
<td>Cooperative</td>
<td>4</td>
</tr>
</tbody>
</table>
DRAFTING AND COMPUTER AIDED DESIGN Electronic Design Option

A two-year Associate of Applied Science degree program

66 credit hours required to graduate

About Our Program

Never before has the demand for printed circuit board designers been so great. The degree in Drafting and Computer Aided Design—Electronic Design Option provides both an educational foundation in computer aided printed circuit board (PCB) design and insight into current industry practices. Students in the intensive computer aided design (CAD) program are taught the skills the designer of PCBs 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 adviser.

Note: Students completing the two-year Industrial Arts program at Lewisville ISD, McKinney ISD, or Plano ISD may be eligible to receive articulated credit. See “Customized Articulation Programs” in this catalog.

Career Opportunities

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

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

Articulation/Transfer Agreement

Formal articulation and/or transfer agreements have been established allowing graduates with an Associate of Applied Science degree to continue their education in bachelor's degree programs at specific four-year universities. For detailed information contact the coordinator of the AAS program or the director of articulation and transfer programs.

Associate of Applied Science Degree Requirements: Drafting and Computer Aided Design—Electronic Design Option

I. General Education Core Credit Hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 151</td>
<td>Composition/Rhetoric I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 181</td>
<td>College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>SPCM 151</td>
<td>Fundamentals of Speech Comm</td>
<td>3</td>
</tr>
<tr>
<td>HUM 151</td>
<td>Introduction to Humanities</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 121</td>
<td>Applied Psychology</td>
<td>3</td>
</tr>
<tr>
<td>HPED</td>
<td>Any Activity Course</td>
<td>1</td>
</tr>
</tbody>
</table>

II. Technical Program Core Credit Hours

(18 credit hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EET 151</td>
<td>Circuit Analysis I</td>
<td>4</td>
</tr>
<tr>
<td>EET 152</td>
<td>Circuit Analysis II</td>
<td>4</td>
</tr>
<tr>
<td>ELT 210</td>
<td>Digital Control Applications</td>
<td>3</td>
</tr>
<tr>
<td>ELT 208</td>
<td>Active Devices</td>
<td>4</td>
</tr>
<tr>
<td>MATH 182</td>
<td>Trigonometry</td>
<td>3</td>
</tr>
</tbody>
</table>

III. Major Courses Credit Hours

(24 credit hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD 151</td>
<td>Technical Graphics I</td>
<td>3</td>
</tr>
<tr>
<td>CAD 152</td>
<td>Technical Graphics II</td>
<td>3</td>
</tr>
<tr>
<td>CAD 153</td>
<td>Computer Aided Drafting</td>
<td>3</td>
</tr>
<tr>
<td>CAD 224</td>
<td>Adv. Computer Aided Drafting</td>
<td>3</td>
</tr>
<tr>
<td>CAD 231</td>
<td>Electronic PCB Drafting</td>
<td>3</td>
</tr>
<tr>
<td>CAD 240</td>
<td>Printed Circuit Design</td>
<td>3</td>
</tr>
<tr>
<td>CAD 243</td>
<td>Adv. Printed Circuit Design</td>
<td>3</td>
</tr>
<tr>
<td>CIS 121</td>
<td>Computer Graphics Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

IV. Electives Credit Hours

(8 credit hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD 220</td>
<td>Technical Illustration</td>
<td>3</td>
</tr>
<tr>
<td>CAD 221</td>
<td>Computer Aided Design</td>
<td>3</td>
</tr>
<tr>
<td>CAD 232</td>
<td>Descriptive Geometry</td>
<td>3</td>
</tr>
<tr>
<td>CAD 235</td>
<td>Manufacturing Processes</td>
<td>3</td>
</tr>
<tr>
<td>CAD 236</td>
<td>NC Programming</td>
<td>3</td>
</tr>
<tr>
<td>CAD 237</td>
<td>Computer Integrated Mfg</td>
<td>3</td>
</tr>
<tr>
<td>CAD 255</td>
<td>Applications in PCB Design</td>
<td>3</td>
</tr>
<tr>
<td>CAD 700</td>
<td>Cooperative Education I</td>
<td>4</td>
</tr>
<tr>
<td>CAD 705</td>
<td>Cooperative Education II</td>
<td>4</td>
</tr>
<tr>
<td>CAD 710</td>
<td>Cooperative Education III</td>
<td>4</td>
</tr>
<tr>
<td>CPSC 297</td>
<td>Adv. Topics—Autolisp Prog</td>
<td>3</td>
</tr>
</tbody>
</table>
DRAFTING AND COMPUTER AIDED DESIGN

MANUFACTURING OPTION

A two-year Associate of Applied Science Degree Program

70 credit hours required to graduate

ABOUT OUR PROGRAM

An emerging new field in computer integrated manufacturing is rapidly gaining a place in the manufacturing industry. The degree in Drafting and Computer Aided Design—Manufacturing Option provides both an educational foundation in computer integrated manufacturing and an insight into current industry practices. Students in the intensive Computer Aided Design (CAD) program are taught the skills the CAD/CAM technician needs to seek high-tech career opportunities in this rapidly growing field.

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

Note: Students completing the two-year Industrial Arts program at Lewisville ISD, McKinney ISD, or Plano ISD may be eligible to receive articulated credit. See "Customized Articulation Programs" in this catalog.

CAREER OPPORTUNITIES

Students receiving and Associate of Applied Science degree in Engineering Technology with an emphasis in Drafting and Computer Aided Design Manufacturing can seek careers in:

- manufacturing
- research
- aerospace
- aircraft industries
- electronics industries

ARTICULATION/TRANSFER AGREEMENT

Formal articulation and/or transfer agreements have been established allowing graduates with an Associate of Applied Science degree to continue their education in bachelor’s degree programs at specific four-year universities. For detailed information contact the coordinator of the A.A.S. program or the director of articulation and transfer programs.

ASSOCIATE OF APPLIED SCIENCE DEGREE REQUIREMENTS: DRAFTING AND COMPUTER AIDED DESIGN—MANUFACTURING OPTION

I. General Education Core Credit Hours

(22 credit hours)

A. ENGL 151 Composition/Rhetoric I .............. 3
B. SPCM 151 Fundamentals of Speech Comm. ...... 3
C. MATH 181 College Algebra ..................... 3
D. ECON 121 Introduction to Economics .......... 3
E. PSYC 121 Applied Psychology .................. 3
F. HUM 151 Introduction to Humanities ........... 3
G. CIS 121 Computer Graphics Systems .......... 3
H. HPED Any Activity Course ....................... 1

II. Technical Program Core

(15 credit hours)

A. PHYS 191 General Physics I: ..................... 4
B. PHYS 192 General Physics II ..................... 4
C. EET 150 AC/DC Fundamentals .................. 4
D. MATH 182 Trigonometry ......................... 3

III. Major Courses

(21 credit hours)

A. CAD 151 Technical Graphics I ................. 3
B. CAD 152 Technical Graphics II ................. 3
C. CAD 153 Computer Aided Drafting .............. 3
D. CAD 224 Adv. Computer Aided Drafting ........ 3
E. CAD 235 Manufacturing Processes ............... 3
F. CAD 236 NC Programming ....................... 3
G. CAD 237 Computer Integrated Mfg. .............. 3

IV. Electives

(12 credit hours)

A. CAD 220 Technical Illustration .................. 3
B. CAD 221 Computer Aided Design ................. 3
C. CAD 231 Electronic PCB Drafting ............... 3
D. CAD 232 Descriptive Geometry .................. 3
E. CAD 240 Printed Circuit Design .................. 3
F. CAD 243 Adv. Printed Circuit Design ............ 3
G. CAD 255 Appl. in PCB Design ................... 3
H. CAD 700 Cooperative Education I ............... 4
I. CAD 705 Cooperative Education II ............... 4
J. CAD 710 Cooperative Education III ............... 4
K. CPSC 297 Adv. Topics—AutoLisp Prog. .......... 3
DRAFTING AND COMPUTER AIDED DESIGN

CERTIFICATE PROGRAMS

(30–39 CREDIT HOURS)

CERTIFICATE REQUIREMENTS: DRAFTING AND COMPUTER AIDED DESIGN

(30 CREDIT HOURS)

A. CPSC 297 Adv. Topics—Autolisp Programming .............. 3
B. CAD 151 Technical Graphics I ..................... 3
C. CAD 152 Technical Graphics II ...................... 3
D. CAD 153 Computer Aided Drafting .................. 3
E. CAD 220 Technical Illustration ....................... 3
F. CAD 221 Computer Aided Design .................. 3
G. CAD 224 Adv. Computer Aided Drafting ............. 3
H. CAD 231 Electronic PCB Drafting .................. 3
I. CAD 235 Manufacturing Processes .................. 3
J. CIS 121 Computer Graphics Systems ................. 3

CERTIFICATE REQUIREMENTS: ELECTRONIC DESIGN

(39 CREDIT HOURS)

A. EET 151 Circuit Analysis I ......................... 4
B. EET 152 Circuit Analysis II ......................... 4
C. ELT 210 Digital Control Appl. ...................... 3
D. ELT 208 Active Devices ............................ 4
E. CIS 121 Computer Graphics Systems ................. 3
F. CAD 151 Technical Graphics I ..................... 3
G. CAD 152 Technical Graphics II ...................... 3
H. CAD 153 Computer Aided Drafting ................ 3
I. CAD 224 Adv. Computer Aided Drafting ............. 3
J. CAD 231 Electronic PCB Drafting .................. 3
K. CAD 240 Printed Circuit Design .................... 3
L. CAD 243 Adv. Printed Circuit Design ................. 3

CERTIFICATE REQUIREMENTS: MANUFACTURING DESIGN

(30 CREDIT HOURS)

A. CPSC 297 Adv. Topics—Autolisp Programming .............. 3
B. CIS 121 Computer Graphics System .................. 3
C. CAD 151 Technical Graphics I ..................... 3
D. CAD 152 Technical Graphics II ...................... 3
E. CAD 153 Computer Aided Drafting ................ 3
F. CAD 221 Computer Aided Design .................. 3
G. CAD 224 Adv. Computer Aided Drafting ............. 3
H. CAD 235 Manufacturing Processes .................. 3
I. CAD 236 NC Programming .......................... 3
J. CAD 237 Computer Integrated Mfg. ................. 3

DRAFTING AND COMPUTER AIDED DESIGN

COMMERCIAL INTERIOR DESIGN OPTION

PLUS CERTIFICATE

66–67 CREDIT HOURS

ABOUT OUR PROGRAM

Commercial interior design is an upcoming, fast-emerging new career field for young CAD designers. Computer Aided Drafting and Design is reaching into every aspect of the industrial community. The demand for commercial interior designers with a CAD background has never been as high as it is today. The interior design program at CCCC will prepare the student for a rewarding career in this field. It will also provide the student with a strong foundation in preparation for transfer to many four year institutions.

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

CAREER OPPORTUNITIES

Enjoy a profitable career in a modern business environment. Expanding job market possibilities related to commercial interior design exist in all sectors of the industrial community.

ARTICULATION/TRANSFER AGREEMENT

Formal articulation and/or transfer agreements have been established allowing graduates with an Associate of Applied Science degree to continue their education in bachelor’s degree programs at specific four-year universities. For detailed information contact the coordinator of the A.A.S. program or the director of articulation and transfer programs.

ASSOCIATE OF APPLIED SCIENCE IN ENGINEERING TECHNOLOGY REQUIREMENTS DRAFTING AND COMPUTER AIDED DESIGN COMMERCIAL INTERIOR DESIGN

I. General Education Core

Credit Hours

(22 credit hours)

A. ENGL 151 Composition/Rhetoric I .................. 3
B. SPCM 151 Fundamentals of Speech+ ............... 3
C. CPSC 150 Introduction to Computers ............... 3
D. ECON 121 Introduction to Economics ............... 3
E. PSYC 121 Applied Psychology ..................... 3
F. HUM 151 Introduction to Humanities ............... 3
G. MATH 150 Contemporary Math .................... 3
H. HPED Any Activity Course ......................... 1
II. Technical Program Core
(12 credit hours)
A. BSAD 121 Introduction to Business** .................3
B. CIS 121 Introduction to Computer Graphics ........3
C. CAD 151 Technical Graphics I ..................3
D. CAD 153 Computer Aided Drafting .................3

III. Major Program Core
(21 credit hours)
A. ART 191 Design I ..................................3
B. ART 193 Drawing I ..................................3
C. ART 196 Design II ..................................3
D. BSAD 221 Principles of Marketing ................3
E. BSAD 223 Principles of Retail .....................3
F. BSAD 224 Principles of Advertising ...............3
G. CAD 220 Technical Illustration ...................3
H. CAD 224 Adv. Comp. Aided Drafting ...............3
I. CAD 700 Cooperative Work Experience ...........4
J. CAD 705 Cooperative Work Experience ...........4
K. CAD 710 Cooperative Work Experience ...........4
L. CPSC 297 Adv. Topics - Autolisp Prog. ..........3
M. HLT 117 Interior Design ..........................3
N. HLT 210 Intro. Landscape Design .................3
O. HLT 202 Home Landscape Design ..................3

III. Electives
(11–12 credit hours)
A. ART 293 Watercolor I ................................3
B. ART 295 Art History I .................................3
C. ART 296 Art History II ...............................3
D. BSAD 221 Principles of Marketing ................3
E. BSAD 223 Principles of Retail .....................3
F. BSAD 224 Principles of Advertising ...............3
G. CAD 220 Technical Illustration ...................3
H. CAD 224 Adv. Comp. Aided Drafting ...............3
I. CAD 700 Cooperative Work Experience ...........4
J. CAD 705 Cooperative Work Experience ...........4
K. CAD 710 Cooperative Work Experience ...........4
L. CPSC 297 Adv. Topics - Autolisp Prog. ..........3
M. HLT 117 Interior Design ..........................3
N. HLT 210 Intro. Landscape Design .................3
O. HLT 202 Home Landscape Design ..................3

*SPCM 293 may be substituted for SPCM 151
**SBMT 121 may be substituted for BSAD 121

Certificate Program
Interior Design Technology Certificate
(30 credit hours)
A. ART 191 Design I ..................................3
B. ART 193 Drawing I ..................................3
C. ART 196 Design III ..................................3
D. CAD 151 Technical Graphics I ..................3
E. CAD 153 Computer Aided Drafting .................3
F. CAD 221 Computer Aided Design ................3
G. CIS 121 Intro. to Computer Graphics .............3
H. IND 121 Applied Interior Design I .................3

I. IND 221 Applied Interior Design II .................3
J. IND 222 Applied Interior Design III .................3

Eating Disorders Counselor
A one-year Certificate Program
31 credit hours required to graduate

About Our Program
To meet the increasing demand for certification of professionals in the area of eating disorders counselors, the Certificate for Eating Disorders Counselor has been developed to educate students in all areas of the disorders. The certificate program is appropriate for retraining of psychologists, therapists, counselors and social workers as well as serving as a foundation for students beginning their education in these fields.

The certificate provides state-of-the-art training in assessment, symptoms, treatment modalities, medical aspects, individual and group counseling and nutrition. It also incorporates an experiential component in treatment facilities. The program is approved by the International Association of Eating Disorders Professionals which is the credentialing agency. CCCC is currently the only college in Texas offering the certificate.

CCCC's program has established, adopted and promoted a uniform curriculum of the highest possible education and training standards for eating disorders counselors. The health care professional provides eating disorders counseling services within the limitations of applicable state and local statutes and adheres to the ethical principles of the International Association of Eating Disorders Professionals.

Students planning to transfer to a four-year institution should check with the coordinator of the program.

Career Opportunities
Certified eating disorder counselors can expect excellent job opportunities. Recent studies in Collin County and the nation emphasize the need for counselors certified in the specialized area of eating disorders. This certificate program is recognized across the United States as well as in Texas.

Counselors can obtain positions in:
• hospitals
• private agencies
• private practice
- community agencies
- private industry

**Certificate Requirements: Eating Disorders Counselor**

**I. General Education Core**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 151</td>
<td>Composition/Rhetoric I</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 151</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>HPED</td>
<td>Any Activity Core</td>
<td>1</td>
</tr>
</tbody>
</table>

**II. Technical Program Core**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 251</td>
<td>Life-span Psychology</td>
<td>3</td>
</tr>
<tr>
<td>HLSC 191</td>
<td>Nutrition</td>
<td>3</td>
</tr>
</tbody>
</table>

**III. Major Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDCC 221</td>
<td>A Survey of Eating Disorders</td>
<td>3</td>
</tr>
<tr>
<td>EDCC 222</td>
<td>Treatment Modalities of Eating Disorders</td>
<td>3</td>
</tr>
<tr>
<td>EDCC 223</td>
<td>Medical Aspects of Eating Disorders</td>
<td>3</td>
</tr>
<tr>
<td>EDCC 224</td>
<td>Individual Counseling</td>
<td>3</td>
</tr>
<tr>
<td>EDCC 225</td>
<td>Group Processes</td>
<td>3</td>
</tr>
<tr>
<td>EDCC 226</td>
<td>Practicum</td>
<td>3</td>
</tr>
</tbody>
</table>

**ECONOMICS**

**A Two-Year Associate of Arts Degree Program**

60 credit hours required to graduate

**About Our Program**

The Collin County Community College Associate of Arts degree with an emphasis in economics establishes an academic foundation for future studies at a four-year college or university. Students will develop an understanding of past and present economic theories and learn to apply this information toward solving tomorrow's economic problems.

**Career Opportunities**

Numerous career opportunities are available to those with a background in economics. Areas of career opportunities are listed below. Prospective students should bear in mind that many of these areas require training beyond the Associate of Arts degree, and some may require professional degrees.

- banking and finance
- college teaching
- economists
- governmental agencies
- investment specialists
- planners

**Associate of Arts Degree Requirements: Economics**

**I. General Education Core**

See page 40 for General Education Core requirement.

**II. Recommended Electives**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 291</td>
<td>Principles of Economics—Macro</td>
<td>3</td>
</tr>
<tr>
<td>ECON 292</td>
<td>Principles of Economics—Micro</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 191</td>
<td>Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 192</td>
<td>Principles of Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>CIS 130</td>
<td>BASIC Programming</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 252</td>
<td>Forms of Literature I</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 151</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>MATH 152</td>
<td>Calculus for Business and Econ.*</td>
<td>3</td>
</tr>
</tbody>
</table>

*Math 151 recommended in general education core

**Education**

Suggested curriculum for elementary (interdisciplinary studies) and secondary education is located in the Transfer Lab.
A two-year Associate of Applied Science degree program

Graduates of this degree program will receive training in several diversified areas of modern electronics. The student will be exposed to a combination of classroom theory and hands-on laboratory experiments that will provide entry level skills for the electronics industry. Maintenance, repair, basic equipment calibration and troubleshooting techniques are emphasized.

Program curriculum and laboratory experiments have been formally evaluated and endorsed by an advisory committee consisting of members of the electronics industry.

Articulation agreements with four-year institutions allow students to complete this program to transfer credit toward a bachelor’s degree.

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

CCCC is a member of the Texas Association of Schools of Engineering Technology and certified as a testing center for the Certified Electronic Technician Exam.

Career Opportunities

Trained electronic technicians are in demand in Texas and nationwide. According to “Jobs 1995,” a Texas Employment Commission publication, Texas will require approximately 2,000 electronics technicians each year through 1995.

Students completing this program will receive quality training that will provide skills that may lead to employment in specific areas such as:

- telecommunications
- computer maintenance
- avionics
- biomedical
- automotive electronics
- marine electronics

Articulation/Transfer Agreement

Formal articulation and/or transfer agreements have been established allowing graduates with an Associate of Applied Science degree to continue their education in bachelor’s degree programs at specific four-year universities.

Detailed information contact the coordinator of the A.A.S. program or the director of articulation and transfer programs.

Associate of Applied Science Degree Requirements: Electronic Technology

### 1. General Education Core

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. ENGL 151</td>
<td>Composition/Rhetoric I</td>
<td>3</td>
</tr>
<tr>
<td>B. MATH 181</td>
<td>College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>C. ECON 121</td>
<td>Introduction to Economics</td>
<td>3</td>
</tr>
<tr>
<td>D. HUM 151</td>
<td>Introduction to Humanities</td>
<td>3</td>
</tr>
<tr>
<td>E. PSYC 121</td>
<td>Applied Psychology</td>
<td>3</td>
</tr>
<tr>
<td>F. SPCM 151</td>
<td>Fundamentals of Speech Comm.**</td>
<td>3</td>
</tr>
<tr>
<td>G. HPED</td>
<td>Any Activity Course</td>
<td>1</td>
</tr>
</tbody>
</table>

### 2. Technical Program Core:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. CIS 121</td>
<td>Computer Graphics System</td>
<td>3</td>
</tr>
<tr>
<td>B. MATH 182</td>
<td>Trigonometry</td>
<td>3</td>
</tr>
<tr>
<td>C. CAD 231</td>
<td>Electronic Drafting</td>
<td>3</td>
</tr>
<tr>
<td>D. ENGL 291</td>
<td>Technical Writing***</td>
<td>3</td>
</tr>
</tbody>
</table>

### 3. Major Program Core:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. ELT 111</td>
<td>Basic Electronics I</td>
<td>4</td>
</tr>
<tr>
<td>B. ELT 112</td>
<td>Basic Electronics II</td>
<td>4</td>
</tr>
<tr>
<td>C. ELT 113</td>
<td>Electronic Fabrication I</td>
<td>4</td>
</tr>
<tr>
<td>D. ELT 114</td>
<td>Solid State Devices</td>
<td>4</td>
</tr>
<tr>
<td>E. ELT 115</td>
<td>Basic Digital</td>
<td>3</td>
</tr>
<tr>
<td>F. ELT 207</td>
<td>Fund of Electronic Comm.</td>
<td>4</td>
</tr>
<tr>
<td>G. ELT 208</td>
<td>Active Devices</td>
<td>4</td>
</tr>
<tr>
<td>H. ELT 209</td>
<td>Instrumentation and Telemetry</td>
<td>3</td>
</tr>
</tbody>
</table>

### 4. Electives

<table>
<thead>
<tr>
<th>Minimum 7-8 credit hours</th>
<th>Description</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. ELT 210</td>
<td>Digital Control Applications</td>
<td>3</td>
</tr>
<tr>
<td>B. ELT 211</td>
<td>Power Supply Systems</td>
<td>3</td>
</tr>
<tr>
<td>C. ELT 212</td>
<td>Applied Electronic Circuits</td>
<td>4</td>
</tr>
<tr>
<td>D. ELT 213</td>
<td>Computer Architecture</td>
<td>4</td>
</tr>
<tr>
<td>E. ELT 214</td>
<td>Applied Computer Programming</td>
<td>4</td>
</tr>
<tr>
<td>F. ELT 215</td>
<td>Microcomputer Systems</td>
<td>3</td>
</tr>
<tr>
<td>G. ELT 216</td>
<td>Optoelectronics</td>
<td>4</td>
</tr>
<tr>
<td>H. ELT 700</td>
<td>Cooperative Education I</td>
<td>4</td>
</tr>
<tr>
<td>I. ELT 705</td>
<td>Cooperative Education II</td>
<td>4</td>
</tr>
</tbody>
</table>

*Higher mathematics and physics courses may be used.

**SPCM 293 (Business and Professional speaking) may be substituted for SPCM 151.

***See ENGL 291 course description.


**Electronic Technology Certificate Program**

(30 credit hours)

A. ELT 111 Basic Electronics I .............. 4
B. ELT 112 Basic Electronics II ............ 4
C. ELT 113 Electronic Fabrication I ........ 4
D. ELT 114 Solid State Devices ............... 4
E. ELT 115 Basic Digital .................. 3
F. ELT 207 Fund of Electronic Comm........ 4
G. ELT 208 Active Devices .................. 4
H. ELT 209 Instrumentation and Telemetry ...... 3

A certificate in Electronic Technology will be granted after completion of the major program core and the Associate of Applied Science Degree in Electronic Technology.

**Electronics Engineering Technology**

A two-year Associate of Applied Science degree program

67-68 credit hours required to graduate

About Our Program

Graduates of this degree program will receive training in several diversified areas of electronics. The emphasis of this program will be the application of mathematical theorems and applied physics toward the design and analysis of electronic circuits. Students will be exposed to a combination of classroom theory and hands-on laboratory design and analysis experiments. This training will provide students with entry level skills for employment in the electronics industry.

Program curriculum and the design/analysis laboratory experiments have been formally evaluated and endorsed by an electronics industry advisory committee.

Articulation agreements with four-year institutions allow students graduating from this program to transfer credit toward a bachelor’s degree. Students planning to transfer to a four-year institution should check with an academic adviser.

CCCC is a member of the Texas Association of Schools of Engineering Technology and certified as a testing center for the Certified Electronic Technician exam.

Career Opportunities

Trained electronics technicians are in demand in Texas and nationwide. According to “Jobs 1995,” a Texas Employment Commission publication, Texas will require approximately 2,000 electronic technician each year through 1995.

A severe shortage of trained electronics design/analysis technicians has led to excellent employment opportunities for students completing this program. These positions are:

- engineering aides
- research and development technicians
- applied engineering technicians

Graduates of this program will receive quality training that will provide skills that may lead to employment in specific areas such as:

- telecommunications
- computer systems applications
- avionics and space communications
- biomedical applications and design
- printed circuit board design and manufacturing
- laser and fiber optics applications

Articulation/Transfer Agreement

Formal articulation and/or transfer agreements have been established allowing graduates with an Associate of Applied Science degree to continue their education in bachelor’s degree programs at specific four-year universities. For detailed information contact the coordinator of the A.A.S. program or the director of articulation and transfer program.

Associate of Applied Science Degree Requirements: Electronics Engineering Technology

I. General Education Core Credit Hours (19 credit hours)

A. ENGL 151 Composition/Rhetoric I .......... 3
B. MATH 181 College Algebra* ............... 3
C. ECON 121 Introduction to Economics or .... 3
   ECON 291 Principles of Economics—Macro .... 3
D. HUM 151 Introduction to Humanities .......... 3
E. PSYC 121 Applied Psychology or .......... 3
   PSYC 151 General Psychology ............... 3
F. SPCM 151 Fundamentals of Speech Comm.* ... 3
G. HPED Any Activity Course .............. 1

II. Technical Program Core (18 credit hours)

A. PHYS 191 General Physics I* .............. 4
B. PHYS 192 General Physics II* ............ 4
C. MATH 182 Trigonometry* .................. 3
D. MATH 191 Calculus I* ..................... 4
E. CIS 121 Computer Graphics Systems .......... 3
II. Major Program Core  
(24 credit hours)  
A. EET 151 Circuit Analysis I ............... 4  
B. EET 152 Circuit Analysis II ............ 4  
C. EET 153 Digital I.C. Analysis .......... 4  
D. EET 154 Fundamentals of Computers .......... 4  
E. EET 250 Circuit Analysis III .......... 4  
F. EET 254 Telecommunications ............ 4  

III. Electives  
(3-4 credit hours)  
A. EET 150 AC/DC Fundamentals .......... 4  
B. EET 251 Computer Interfacing .......... 3  
C. EET 252 Computer Maintenance .......... 4  
D. EET 253 Microwave Fundamentals ........... 4  
E. EET 290 Selected Topics ............... 3  
F. EET 291 Independent Study ............ 3  
G. EET 700 Cooperative Education I ......... 4  
H. EET 705 Cooperative Education II .......... 4  

IV. Free Elective  
(3-4 credit hours)  
A. May be chosen from any come in catalog  
*Higher level physics and mathematics courses may be used.  
**SPCM 293 (Business and Professional Speaking) may be substituted for SPCM 151.  
***CCCC has a prerequisite of MATH 183 (Analytic Geometry) for MATH 191  

ELECTRONICS ENGINEERING  
TECHNOLOGY  
CERTIFICATE PROGRAMS  
(22-23 CREDIT HOURS)  
CERTIFICATE REQUIREMENTS: COMPUTER OPTION  
(22 CREDIT HOURS)  
A. EET 154 Fund of Computers ............... 4  
B. EET 251 Computer Interfacing .......... 3  
C. EET 252 Computer Maintenance .......... 4  
D. ELT 213 Computer Architecture .......... 4  
E. ELT 214 Computer Programming .......... 4  
F. ELT 215 Microcomputer Systems ........... 3  
This certificate may be earned only after completion of the Electronics Engineering Technology degree.  

CERTIFICATE REQUIREMENTS: ELECTRONIC COMMUNICATION OPTION  
(23 CREDIT HOURS)  
A. ELT 207 Fundamentals of Elec. Comm. ........... 4  
B. ELT 211 Power Supply Systems .......... 3  
C. ELT 212 Applied Electronic Circuits .......... 4  
D. ELT 216 Optoelectronics ................. 4  
E. EET 253 Microwave Fundamentals ........... 4  
F. EET 254 Telecommunications ............ 4  
This certificate may be earned only after completion of the Electronics Engineering Technology degree.
EMERGENCY MEDICAL SERVICES
A two-year Associate of Applied Science Degree Program

66 credit hours required to graduate

ABOUT OUR PROGRAM

Society has become so accustomed to the availability of emergency medical services that citizens are often unaware of the impact these services have on our everyday lives. In the past, emergencies, whether minor injuries or life threatening situations, had to be handled by family members or 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 Services 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 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 Services.

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

CAREER OPPORTUNITIES

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

- paramedic
- EMT
- emergency room assistants
- firefighter
- private ambulance service
- lab technician

ARTICULATION/TRANSFER AGREEMENT

Formal articulation and/or transfer agreements have been established allowing graduates with an Associate of Applied Science degree to continue their education in bachelor's degree programs at specific four-year universities. For detailed information contact the coordinator of the A.A.S. program or the director of articulation and transfer programs.

ASSOCIATE OF APPLIED SCIENCE DEGREE

REQUIREMENTS: EMERGENCY MEDICAL SERVICES

I. General Education Core

(22 credit hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 121 Introduction to Economics</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 151 Composition Rhetoric I</td>
<td>3</td>
</tr>
<tr>
<td>HUM 151 Introduction to Humanities</td>
<td>3</td>
</tr>
<tr>
<td>MATH 150 Contemporary Mathematics*</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 121 Applied Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SPCM 151 Fundamentals of Speech Comm.</td>
<td>3</td>
</tr>
<tr>
<td>CPSC 150 Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>HPED 140 Beginning Weight Training</td>
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</table>

II. Major Courses

(41 credit hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMTP 121 Introduction to Emergency Care</td>
<td>3</td>
</tr>
<tr>
<td>EMTP 141 Emergency Medical Procedures</td>
<td>5</td>
</tr>
<tr>
<td>EMTP 221 Paramedic Procedures I</td>
<td>8</td>
</tr>
<tr>
<td>EMTP 225 Pharmacology</td>
<td>4</td>
</tr>
<tr>
<td>EMTP 231 Paramedic Procedures II</td>
<td>7</td>
</tr>
<tr>
<td>HLSC 132 Medical Terminology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 291 Anatomy and Physiology I</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 292 Anatomy and Physiology II</td>
<td>4</td>
</tr>
<tr>
<td>PLSC 261 American Government I</td>
<td>3</td>
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</table>

III. Electives

(3 credit hours minimum)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMTP 211 Special Skills Training</td>
<td>5</td>
</tr>
<tr>
<td>EMTP 149 Emergency Medical Dispatch</td>
<td>3</td>
</tr>
<tr>
<td>EMTP 230 Emergency Medical Services Management</td>
<td>3</td>
</tr>
<tr>
<td>EMTP 296 Emergency Med Tech Seminar</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 293 Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>SPAN 191 Beginning Spanish I</td>
<td>4</td>
</tr>
<tr>
<td>HPED 160 Beginning Swimming</td>
<td>1</td>
</tr>
<tr>
<td>HPED 161 Intermediate Swimming</td>
<td>1</td>
</tr>
<tr>
<td>HPED 163 Advanced Lifesaving</td>
<td>1</td>
</tr>
<tr>
<td>HPED 164 Water Safety Instructor</td>
<td>1</td>
</tr>
</tbody>
</table>

Note: Special admission applies to this program and registration is by permission only. See coordinator/adviser for additional information.

* Student placement in mathematics is based on the results of tests and subjects completed before admission.
ENGINEERING
A TWO-YEAR ASSOCIATE OF SCIENCE DEGREE PROGRAM
60 CREDIT HOURS REQUIRED TO GRADUATE

ABOUT OUR PROGRAM

The accelerating pace of industrial and technological developments has created an ever-increasing demand for highly qualified professional engineers to formulate and solve the problems of today and the future. The pre-engineering degree at CCCC prepares the student for transfer to a four-year institution in almost any engineering discipline. The course work for a BS in Engineering is similar in most disciplines; however, the student is advised to consult an academic adviser when deciding upon which university he/she wishes to pursue.

CAREER OPPORTUNITIES

At the present time, over two-thirds of all the technical and a large percentage of the managerial positions in industry are occupied by engineers. Our pre-engineering program prepares the students for transfer to a four-year institution where they can specialize in such disciplines as:

- aerospace engineering
- agriculture engineering
- bioengineering
- biochemical and food engineering
- chemical engineering
- civil engineering
- computer science engineering
- electrical engineering
- forest engineering
- industrial engineering
- mechanical engineering
- nuclear engineering
- ocean engineering
- petroleum engineering
- radiological health engineering

ASSOCIATE OF SCIENCE DEGREE REQUIREMENTS: ENGINEERING

I. General Education Core

See page 42 for General Education Core requirements.

II. Recommended Electives

<table>
<thead>
<tr>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>A. MATH 291 Calculus III</td>
</tr>
<tr>
<td>B. MATH 292 Linear Algebra</td>
</tr>
<tr>
<td>C. MATH 293 Differential Equations</td>
</tr>
<tr>
<td>D. CPSC 190 Programming Concepts I</td>
</tr>
<tr>
<td>E. ENGR 151 Engineering Graphics</td>
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<tr>
<td>F. ENGR 191 Engineering Mechanics I</td>
</tr>
<tr>
<td>G. ENGR 192 Engineering Mechanics II</td>
</tr>
<tr>
<td>H. ENGR 291 Materials and Processes</td>
</tr>
<tr>
<td>I. ENGR 292 Electrical Circuit Analysis</td>
</tr>
<tr>
<td>J. CHEM 191 General Chemistry I</td>
</tr>
<tr>
<td>K. CHEM 192 General Chemistry II</td>
</tr>
<tr>
<td>L. ENGL 291 Technical Writing</td>
</tr>
</tbody>
</table>

Note: CCCC has a formal articulation agreement with the University of Texas at Dallas. Check with the CCCC program coordinator or Transfer Lab for detailed information.

* See ENGL 291 course description

ENGLISH
A TWO-YEAR ASSOCIATE OF ARTS DEGREE PROGRAM
60 CREDIT HOURS REQUIRED TO GRADUATE

ABOUT OUR PROGRAM

The courses in English train students to communicate effectively through writing. Compositions/Rhetoric I and II enable students to build skills in thinking and writing. In Composition/Rhetoric I, students practice expository and persuasive writing. In Composition/Rhetoric II, students focus on argumentation, logical thinking and the research paper. Each of these courses includes a lab component that is an integral part of the course, designed to help students identify weak areas in their writing, eliminate individual problems in writing and strengthen their writing skills. The Writing Center, another part of the English program, provides professional consultation to students across the curriculum. Students can get immediate help in composing, writing and revising papers, resumes, reports, etc. Some of the Composition/Rhetoric I courses are taught in the Macintosh classroom, and many instructors have their students use the PC (IBM compatible) classroom.

CAREER OPPORTUNITIES

- Positions requiring writing skills
- Positions requiring editing/proofing skills
- Positions requiring word processing skills
- Positions requiring knowledge of the research process

Combined with further study, the associate degree with an emphasis in English may equip students for a variety of careers in education, law, government, and public information.
ASSOCIATE OF ARTS DEGREE REQUIREMENTS: ENGLISH

I. General Education Core
See page 40 for General Education Core requirements.

II. Recommended Electives
Credit Hours
(14-16 credit hours)
A. ENGL 241 Creative Writing 3
B. ENGL 251 Forms of Literature I 3
C. ENGL 252 Forms of Literature II 3
D. ENGL 253 British Literature I 3
E. ENGL 254 British Literature II 3
F. ENGL 255 American Literature I 3
G. ENGL 256 American Literature II 3
H. ENGL 257 World Literature I 3
I. ENGL 258 World Literature II 3
   Foreign Language Sequence I 4
   Foreign Language Sequence II 4
J. ENGL 291 Technical Writing 3

FIRE SCIENCE
For complete A.A. degree requirements in Fire Science, contact the coordinator of Fire Science or the Transfer Lab.

FIRE SCIENCE
A TWO-YEAR ASSOCIATE OF APPLIED SCIENCE DEGREE PROGRAM
66 CREDIT HOURS 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.

The Basic Firefighter Certificate is designed to prepare the student for certification as a Basic Firefighter by the Texas Commission on Fire Protection. Students enrolled in the Basic Firefighter Certification Program are involved in various hands-on exercises including rescue practices and live fire training.

CCCC's courses are scheduled to accommodate traditional firefighter work shifts. Full-time, full-paid firefighters employed by any political subdivision enrolled in fire science courses offered as a part of CCCC's fire science curriculum are exempt from payment of tuition and laboratory fees.

Students planning to transfer to a four-year institution should check with their academic adviser.

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 protection, investigation, prevention and education. These challenging job opportunities include:
- firefighter
- fire department officer
- municipal emergency administrator
- safety technician
- hazardous material team member
- tire equipment sales and service representative
- industrial fire protection technician

ARTICULATION/TRANSFER AGREEMENT
Formal articulation and/or transfer agreements have been established allowing graduates with an Associate of Applied Science degree to continue their education in bachelor's degree programs at specific four-year universities. For detailed information contact the coordinator of the A.A.S. program or the director of articulation and transfer programs.

ASSOCIATE OF APPLIED SCIENCE DEGREE REQUIREMENTS: FIRE SCIENCE

I. General Education Core
Credit Hours
(32 credit hours)
A. ECON 121 Introduction to Economics 3
B. ENGL 151 Composition/Rhetoric I 3
C. HPED 140 Beginning Weight Training 1
   and Conditioning
D. HUM 151 Introduction to Humanities 3
E. MATH 150 Contemporary Mathematics 3
F. PSYC 121 Applied Psychology 3
G. SPCM 151 Fundamentals of Speech 3
H. CPSC 150 Introduction to Computers 3
I. CHEM 151 Introduction to Chemistry 4
J. ENGL 291 Technical Writing* 3
K. PLSC 261 American Government I 3

*See ENGL 291 course description.
II. Technical Program Core (18 credit hours)

A. FISC 106 Fund. of Fire Protection .......... 3
B. FISC 116 Fire Safety Education .......... 3
C. FISC 117 Fire Protection Systems .......... 3
D. FISC 121 Industrial Fire Protection I .......... 3
E. FISC 131 Building Codes and Construction .......... 3
F. FISC Fire Commission Approved .......... 3

Course(s) to total 3 credit hours*

III. Major Courses (16 credit hours)

Basic Firefighter Courses

A. FISC 135 Firefighter Certification I .......... 3
B. FISC 136 Firefighter Certification II .......... 2
C. FISC 137 Firefighter Certification III .......... 2
D. FISC 138 Firefighter Certification IV .......... 2
E. FISC 139 Firefighter Certification V .......... 3
F. FISC 140 Firefighter Certification VI .......... 1
G. EMTP 121 Intro. to Emergency Care .......... 3

OR

Fire Commission Approved Courses

A. FISC 112 Fire Prevention .......... 3
B. FISC 125 Chemistry of Hazardous Materials I . 3
C. FISC 133 Fire Cause and Determination .......... 3
D. FISC 141 Fire Administration I .......... 3
E. FISC 148 Firefighting Tactics .......... 4
F. FISC 225 Chemistry of Hazardous Materials II .......... 3
G. FISC 229 Methods of Fire Service Inst .......... 3
H. FISC 230 Fire Science Computer Appl .......... 3
I. FISC 240 Introduction to CAMEO .......... 3
J. FISC 241 Fire Administration II .......... 3
K. FISC 296 Seminar .......... 1

Note: Special admission criteria applies to Basic Firefighter certificate program option. See coordinator/advisor for additional information.

* Higher level of EMTP may be substituted

FRENCH

A two-year Associate of Arts degree program

60 credit hours required to graduate

ABOUT OUR PROGRAM

An associate of arts degree with an emphasis in French provides the essential language background for the advanced study of French, for the mastery of the competencies in listening, speaking, and writing the language, and for a more rapid acquisition of other foreign languages (particularly Romance languages like Spanish). The courses are oral-proficiency based in order to enable the student to converse in French as quickly as possible.

CAREER OPPORTUNITIES

When combined with further study beyond the associate degree, an emphasis in French may lead to careers in education, information science, business and government.

In light of the economic opportunities presented by the emergence of a European Community, the mastery of French and other European languages may lead to exciting career opportunities when combined with a business or marketing degree.

ASSOCIATE OF ARTS DEGREE REQUIREMENTS: FRENCH

I. General Education Core

See page 40 for General Education Core requirements.

II. Recommended Electives Credit Hours

(16 credit hours)

A. FREN 191 Beginning French I .......... 4
B. FREN 192 Beginning French II .......... 4
C. FREN 291 Intermediate French I .......... 3
D. FREN 292 Intermediate French II .......... 3
E. FREN 293 Conversational French I* .......... 1
F. FREN 294 Conversational French II* .......... 1

*Co-requisite of FREN 291

*Co-requisite of FREN 292
GEOGRAPHY
A two-year Associate of Arts degree program

60 credit hours required to graduate

About Our Program

The geography program has been designed to assist students expand their knowledge about the physical and cultural environments of the world. We are entering a period in human history of tremendous change marked by increasing globalization. It is extremely important to be geographically literate as our world approaches the Information Age.

Career Opportunities

Students transferring into a four-year institution geography curriculum will be able to prepare for diverse careers in urban planning, petroleum exploration, cartography (mapping) and corporate planning for expansion and development. Many universities require education majors to take a geography course as part of their degree.

Associate of Arts Degree Requirements: Geography

I. General Education Core

See page 40 for General Education Core requirements.

II. Recommended Electives

<table>
<thead>
<tr>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>(14-16 credit hours)</td>
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</tbody>
</table>

A. GEOG 151 Physical Geography 3
B. GEOG 152 Cultural Geography 3
C. ANTH 151 Cultural Anthropology 3
D. PSYC 151 General Psychology 3
E. HIST 251 Western Civilization I 3
F. HIST 252 Western Civilization II 3
G. Foreign Language Sequence I 4
H. Foreign Language Sequence II 4

HISTORY
A two-year Associate of Arts degree program

60 credit hours required to graduate

About Our Program

The history program at CCCC is designed for both students who are interested in completing an associate degree or pursuing a bachelors degree and for those in the community who have an interest in their country’s past. The American survey history course meets the state’s requirement of six hours of American history. In addition to the survey courses, the department also offers classes in Western Civilization (required by some colleges) and special courses that are designed to examine a specific topic in detail, such as: Women in History, the 1960s, the Civil War and the History of Race Relations in the United States. These courses count as elective hours or in some cases will transfer as part of the state’s six hour requirement.

Career Opportunities

Students who major in history will be attractive employee prospects because of the demands of the discipline: writing skills, organizational abilities, critical thinking and an ability to analyze problems in a holistic fashion. This liberal arts background prepares the student not just for a career as an historian but for a variety of fields such as journalism, law, politics, social work, television and radio, etc. A degree in history will naturally assist the student interested in being a writer or teacher but also will provide career opportunities in such adjacent fields as public history, museum curator, archivist, research associate for public and private agencies, and in developing fields like environmental historian for state agencies, contract work for legal firms and in the areas which will dominate the 21st century—computer/video/film documentaries.

Associate of Arts Degree Requirements: History

I. General Education Core

See page 40 for General Education Core requirements.

II. Recommended Electives

<table>
<thead>
<tr>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>(14-16 credit hours)</td>
</tr>
</tbody>
</table>

A. HIST 251 Western Civilization I 3
B. HIST 252 Western Civilization II 3
C. HIST 253 Texas History 3
D. Foreign Language Sequence I 4
E. Foreign Language Sequence II 4
F. ENGL Sophomore Literature 3
G. ECON 291 Principles of Economics-Macro 3
H. ECON 292 Principles of Economics-Micro 3
I. PHIL 151 Introduction to Philosophy 3
J. PHIL 152 Logic 3
K. PSYC 151 General Psychology 3
L. SOC 151 Introduction to Sociology 3
Horticulture/Landscape Technology

A two-year Associate of Science Degree Program

60 Credit Hours Required to Graduate

About Our Program

The demand for developing new plants through research increases continuously. Students interested in continuing their education at a four-year university may begin by completing the core courses offered through the AS-Horticulture curriculum. Smaller class size allows students greater opportunity for individual study and prepares them for advanced courses in Horticultural Science at a university.

Career Opportunities

- extension horticulturist
- plant research and development
- county agent
- horticultural education
- department of agriculture

Associate of Science Degree Requirements: Horticulture/Landscape Technology

I. General Education Core

See page 42 for General Education Core requirements.

II. Recommended Electives

<table>
<thead>
<tr>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>(14–16 credit hours)</td>
</tr>
<tr>
<td>A. BIOL 281 General Botany .......... 4</td>
</tr>
<tr>
<td>B. BIOL 294 Genetics .......... 4</td>
</tr>
<tr>
<td>C. HLT 117 Interior Plants .......... 3</td>
</tr>
<tr>
<td>D. HLT 125 Soils and Plant Nutrition .......... 3</td>
</tr>
<tr>
<td>E. HLT 126 Plant Pests and Controls .......... 3</td>
</tr>
<tr>
<td>F. HLT 190 Basic Horticulture .......... 3</td>
</tr>
<tr>
<td>G. HLT 191 Woody Plant Materials .......... 4</td>
</tr>
<tr>
<td>H. HLT 192 Herbaceous Plant Materials .......... 4</td>
</tr>
<tr>
<td>I. HLT 265 Plant Propagation .......... 4</td>
</tr>
</tbody>
</table>

Horticulture/Landscape Technology

A two-year Associate of Applied Science Degree Program

68 Credit Hours Required to Graduate

About Our Program

Challenging careers for the 1990s and beyond may be found in the nursery and landscape industry. The degree programs in Horticulture and Landscape Technology are designed to prepare the student for immediate employment in the landscape or horticulture field. Students who are currently in the field can update their knowledge and skills in the areas of landscape installation, maintenance and many horticultural specialties.

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

Students planning to transfer to a four-year institution should refer to the Associate of Science degree in Horticulture (above).

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:

- grounds supervision
- landscape contracting and maintenance
- landscape supplies and plant sales
- plant propagation
- nursery ownership and management
- landscape management
- greenhouse production
- tree maintenance

Articulation/Transfer Agreement

Formal articulation and/or transfer agreements have been established allowing graduates with an Associate of Applied Science degree to continue their education in bachelor’s degree programs at specific four-year universities. For detailed information contact the coordinator of the A.A.S. program or the director of articulation and transfer programs.

Associate of Applied Science Degree Requirements: Horticulture/Techonology

I. General Education Core

<table>
<thead>
<tr>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>(27 credit hours)</td>
</tr>
<tr>
<td>A. ENGL 151 Composition/Rhetoric I .......... 3</td>
</tr>
<tr>
<td>B. BIOL 191 General Biology I .......... 4</td>
</tr>
<tr>
<td>C. HUM 151 Introduction to Humanities .......... 3</td>
</tr>
<tr>
<td>D. MATH 150 Contemporary Mathematics .......... 3</td>
</tr>
<tr>
<td>E. CPSC 150 Introduction to Computers .......... 3</td>
</tr>
<tr>
<td>F. ECON 121 Introduction to Economics .......... 3</td>
</tr>
<tr>
<td>G. SPCM 151 Fundamentals of Speech Comm. .......... 3</td>
</tr>
</tbody>
</table>
H. BIOL 294 Genetics or 281 General Botany 4

1. HPED Activity Elective 1

II. Technical Program Core
(35 credit hours)
A. HLT 117 Interior Plants 3
B. HLT 125 Soils and Plant Nutrition 3
C. HLT 126 Plant Pests and Controls 3
D. HLT 190 Basic Horticulture 3
E. HLT 191 Woody Plant Materials 4
F. HLT 192 Herbaceous Plant Materials 4
G. HLT 210 Intro. to Landscape Design 3
H. HLT 250 Nursery and 4
I. HLT 265 Plant Propagation 4
J. HLT 290 Field Training I 3
K. HLT 296 Seminar 1

III. Electives
(6 credit hours)
A. HLT 115 Native Plants of Texas 3
B. HLT 117 Interior Plants 3
C. HLT 211 Home Landscape Design 4
D. HLT 220 Irrigation Systems 3
E. HLT 275 Floriculture 3
F. HLT 280 Viticulture 3
G. HLT 291 Field Training II 3
H. SMBT 121 Small Business Management 3
I. PSYC 151 General Psychology 3

ASSOCIATE OF APPLIED SCIENCE DEGREE
REQUIREMENTS: LANDSCAPE TECHNOLOGY

I. General Education Core  Credit Hours
(19 credit hours)
A. ENGL 151 Composition/Rhetoric I 3
B. BSAD 121 Introduction to Business or 3
ECON 121 Introduction to Economics 3
C. HUM 151 Introduction to Humanities 3
D. MATH 150 Contemporary Mathematics 3
E. CPSC 150 Introduction to Computers 3
F. SPCM 151 Fundamentals of Speech Comm. 3
G. HPED Any Activity Come 1

II. Technical Program Core
(46 credit hours)
A. HLT 125 Soils and Plant Nutrition 3
B. HLT 126 Plant Pests and Controls 3
C. HLT 140 Turf Science and Management 3
D. HLT 190 Basic Horticulture 3
E. HLT 191 Woody Plant Materials 4
F. HLT 192 Herbaceous Plant Materials 4
G. HLT 210 Intro. to Landscape Design 3
H. HLT 220 Irrigation Systems 3
I. HLT 225 Landscape Construction 4
J. HLT 230 Site Analysis and Surveying 4
K. HLT 235 Landscape Business Operations 4
L. HLT 260 Landscape Maintenance I 3
M. HLT 293 Summer Internship 4
N. HLT 296 Seminar 1

III. Electives
(3 credit hours)
A. HLT 115 Native Plants of Texas 3
B. HLT 117 Interior Plants 3
C. HLT 261 Landscape Maintenance II 3
D. HLT 270 Arboriculture 4
E. HLT 280 Viticulture 3
F. BSAD 125 Supervisory Management 3
G. PSYC 151 General Psychology 3

LANDSCAPE INDUSTRY
CERTIFICATE PROGRAM

A certificate program for the landscape industry will begin in spring 1993, pending final approval. This program will allow persons entering the landscape contracting and management field an opportunity to gain an education, even though they have little or no previous academic background. Interested persons should contact the coordinator of the landscape/landscape technology program at Spring Creek campus.
LEGAL ASSISTANT
A TWO-YEAR ASSOCIATE OF ARTS DEGREE PROGRAM OR CERTIFICATE

ABOUT OUR PROGRAM
Collin County Community College has two degree plans for legal assistant studies: Associate of Arts and Associate of Applied Science.

In addition CCCC has several certificate options to be implemented in fall 1992. Students must be pre-admitted.

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 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.

CCCC’s two degrees in Legal Assistant are designed for the student who wants to develop office skills and acquire general knowledge of law.

The Associate of Arts Legal Assistant degree is recommended for those students who plan to transfer to a four-year institution for a bachelor’s degree.

JOB DESCRIPTION
A legal assistant performs specialized legal duties under the supervision of a licensed attorney. While the range of duties performed by a legal assistant will be determined by the individual employer, most positions require the clerical skills of a legal secretary plus the ability to perform some of the legal skills normally performed only by attorneys. Commonly, legal assistants draft legal documents, perform some legal research, obtain information relevant to cases from various sources, interview clients and assist in trial preparation.

BASIC SKILL REQUIREMENTS
2. Clerical proficiency: typing, word processing, calculator, filing, telephone etiquette, mail distribution, systems designing and implementation.

3. Interpersonal skills: active listening, oral communication, written communication, management.

LEGAL SKILLS
The following is illustrative and not meant to be all-inclusive.

1. Interviewing and fact-gathering.
2. Locate relevant law in all major types of legal literature.
3. Conduct, evaluate discovery.
4. Draft legal documents and other written work.
6. Maintain ethical standards as required by State Bar.

Areas of study include:
- legal terms and concepts
- law office management skills
- legal ethics
- legal research and writing
- substantive law
- procedural law
- word processing concepts
- legal word processing
- legal transcription

ARTICULATION/TRANSFER AGREEMENT
Formal articulation and/or transfer agreements have been established allowing graduates with an Associate of Arts degree to continue their education in bachelor’s degree programs at specific four-year universities. For detailed information contact the program coordinator of the Legal Assistant program or the director of articulation and transfer programs.

Students pursuing either degree plan may transfer to a four-year university and should consult an academic advisor.

ASSOCIATE OF ARTS DEGREE REQUIREMENTS LEGAL ASSISTANT

I. General Education Core
60 credit hours required to graduate

See page 40 for General Education Core requirements.

II. Recommended Electives Credit Hours
(14-16 credit hours*)

A. LEGL 130 Law and Judicial Systems .................3
B. LEGL 132 Legal Research .............................3
C. LEGL 135 Law Office Management .................3
D. LEGL 230 Civil Procedure or
E. CRJS 154 Courts and Criminal Procedures ......3
'Additional hours may be required for transfer. See the adviser.'

**LEGAL ASSISTANT**

**A TWO-YEAR ASSOCIATE OF APPLIED SCIENCE DEGREE PROGRAM**

**ASSOCIATE OF APPLIED SCIENCE DEGREE REQUIREMENTS: LEGAL ASSISTANT**

61 credit hours required to graduate

I. General Education Core Credit Hours (25 credit hours)

   A. ENGL 151 Composition/Rhetoric I ........... 3
   B. ENGL 152 Composition/Rhetoric II .......... 3
   C. SPCM 151 Fundamentals of Speech Comm. ... 3
   D. MATH 150 Contemporary Mathematics or ...... 3
   E. ECOP 291 Principles of Economics \ Macroeconomics \ Behavioral Science (PSYC, SOC, or PHIL) \ Business Law or Management \ Fundamental of Speech Comm. \ Contemporary Mathematics or \ Principles of Economics \ Principles of Accounting II
   F. MATH 151 Pre-Calculus for Bus/Econ. ...... 3

II. Technical Program Core (12 credit hours)

   A. OFAD 122 Advanced Typewriting/Legal ...... 3
   B. OFAD 221 Word Processing I ............... 3
   C. OFAD 224 Word Processing II/Legal ........ 3
   D. OFAD 225 Machine Transcription/Legal ..... 3

III. Major Courses (18 credit hours)

   A. LEGL 130 Basic Legal Studies ............... 3
   B. LEGL 131 Law and Judicial Systems .......... 3
   C. LEGL 132 Legal Research ................... 3
   D. LEGL 135 Law Office Management ............ 3
   E. LEGL 230 Civil Procedure .................. 3
   F. LEGL 231 Principles of Accounting I ......... 3

IV. Electives (6 credit hours)

   A. LEGL 237 Texas Legal Systems ............... 3
   B. LEGL 242 Law of Defenders .................. 3
   C. LEGL 245 Personal Property ................. 3
   D. LEGL 251 Property Law ..................... 3
   E. LEGL 252 Wills, Trusts, Probate ............. 3

   Total ........................................ 9

**LEGAL ASSISTANT CERTIFICATE PROGRAMS**

**General Certificate Program**

- ACCT 131 Elementary Accounting**
- CPSC 150 Introduction to Computers or
- CIS 128 Micro Computer Concepts
- LEGL 130 Basic Legal Studies
- LEGL 131 Law and Judicial Systems
- LEGL 132 Legal Research and Writing
- LEGL 135 Law Office Management
- LEGL 230 Civil Procedure
- OFAD 122 Advanced Typewriting/Legal
- OFAD 223 Word Processing I
- OFAD 224 Word Processing II/Legal
- OFAD 225 Machine Transcription/Legal

*To enroll in this certificate program, the student must meet one of the following admission requirements:

a. Any associate degree
b. Any bachelor or higher-level degree
c. 3 years full-time employment in a legal related field or
d. 5 years full-time employment in a secretarial related field.

**Higher level may be substituted.**

**Business/Corporate Litigation Certificate Program**

- LEGL 261 Business Organizations ............... 3
- LEGL 242 Personal Property, Sales and Credit .... 3
- LEGL 264 Business Legal Environment .......... 3

Total ........................................ 9
MANAGEMENT DEVELOPMENT

A two-year Associate of Applied Science degree program

64 credit hours 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 effective 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 adviser.

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. As a result, jobs will always be available in many fields, including government and public service.

ARTICULATION/TRANSFER AGREEMENT

Formal articulation and/or transfer agreements have been established allowing graduates with an Associate of Applied Science degree to continue their education in bachelor’s degree programs at specific four-year universities. For detailed information contact the coordinator of the A.A.S. program or the director of articulation and transfer programs.
ASSOCIATE OF APPLIED SCIENCE DEGREE
REQUIREMENTS MANAGEMENT DEVELOPMENT

I. General Education Core
   (22 credit hours)
   A. ENGL 151 Composition/Rhetoric .............. 3
   B. SPCM 151 Fundamentals of Speech ............ 3
   C. MATH 150 Contemporary Mathematics ......... 3
   D. ECON 121 Introduction to Economics ......... 3
   E. CPSC 150 Introduction to Computers .......... 3
   F. B. PSYC 121 Applied Psychology or ........... 3
   G. H. ACCT 192 Principles of Accounting ....... 3
   H. PSYC 151 General Psychology ................. 3
   I. HUM 151 Introduction to Humanities .......... 3
   J. CPSC 150 Introduction to Computers .......... 3
   K. HPED Any Activity Course ................... 1

II. Technical Program Core
    (12 credit hours)
    A. ACCT 191 Principles of Accounting ........... 3
    B. BSAD 122 Principles of Management .......... 3
    C. MRKT 228 Principles of Marketing ............ 3
    D. BSAD 222 Personnel Management .............. 3

III. Major Courses
     (24 credit hours)
     A. BSAD 123 Business Law ..................... 3
     B. BSAD 125 Supervisory Management ............ 3
     C. BSAD 222 Principles of Management .......... 3
     D. BSAD 232 Strategic Management ............... 3
     E. CIS 220 Integrated Spreadsheet App. ......... 3
     F. SBMT 221 Financing a Small Business ......... 3
     G. ENGL 291 Technical Writing* ................ 3
     H. ACCT 192 Principles of Accounting ........... 3

* See ENGL 291 course description.

IV. Electives
    (6 credit hours)
    A. CIS 130 BASIC Programming ................ 3
    B. CIS 224 Information Systems Management .... 3
    C. CIS 230 Database Applications ............... 3
    D. BSAD 226 Sales Management .................. 3
    E. SBMT 222 Principles of Retailing ............ 3
    F. MRKT 227 Principles of Advertising .......... 3
    G. BSAD 225 International Business ............. 3
    H. BSAD 226 Sales Management .................. 3
    I. BSAD 231 Labor Management Relations ......... 3
    J. BSAD 298 Select Topics-Personnel Mgmt ....... 3
    K. BSAD 700 Cooperative Education I ............ 3
    L. BSAD 705 Cooperative Education II .......... 3

CERTIFICATE REQUIREMENTS: BUSINESS MANAGEMENT
(30 credit hours)

A. BSAD 122 Principles of Management ............ 3
B. BSAD 123 Business Law ......................... 3
C. BSAD 125 Supervisory Management .............. 3
D. BSAD 222 Personnel Management ................ 3
E. ACCT 191 Principles of Accounting ............. 3
F. BSAD 228 Organizational Behavior .............. 3
G. BSAD 231 Labor Management Relations .......... 3
H. ACCT 192 Principles of Accounting ............. 3
I. CIS 220 Integrated Spreadsheet App. ............ 3
J. SBMT 221 Financing a Small Business .......... 3

MANAGEMENT

SMALL BUSINESS MANAGEMENT

A TWO-YEAR ASSOCIATE OF APPLIED SCIENCE DEGREE PROGRAM

61 CREDIT HOURS 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 adviser.

CAREER OPPORTUNITIES

The Associate of Applied Science degree in Management with a Small Business major provides the essential core of management practices and prepares students for:
- entrepreneurship
- manufacturing
- construction
- retail
- services
- personnel

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.
**ARTICULATION/TRANSFER AGREEMENT**

Formal articulation and/or transfer agreements have been established allowing graduates with an Associate of Applied Science degree to continue their education in bachelor's degree programs at specific four-year universities. For detailed information contact the coordinator of the A.A.S. program or the director of articulation and transfer programs.

**ASSOCIATE OF APPLIED SCIENCE DEGREE REQUIREMENTS: SMALL BUSINESS MANAGEMENT**

**I. General Education Core**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>A. ENGL 151 Composition/Rhetoric I</td>
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</tr>
<tr>
<td>B. SPCM 151 Fundamentals of Speech Comm.</td>
<td>3</td>
</tr>
<tr>
<td>C. MATH 151 Pre-Calculus for Bus./Econ.</td>
<td>3</td>
</tr>
<tr>
<td>D. ECON 291 Principles of Economics—Macro</td>
<td>3</td>
</tr>
<tr>
<td>E. PSYC 121 Applied Psychology or PSYC 151 General Psychology*</td>
<td>3</td>
</tr>
<tr>
<td>F. HUM 151 Introduction to Humanities</td>
<td>3</td>
</tr>
<tr>
<td>G. CPSC 150 Introduction to Computers</td>
<td>3</td>
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<tr>
<td>H. HPE 151 Any Activity Course</td>
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**II. Technical Program Core**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>A. ACCT 191 Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>B. BSAD 123 Business Law</td>
<td>3</td>
</tr>
<tr>
<td>C. MRKT 228 Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>D. BSAD 222 Personnel Management</td>
<td>3</td>
</tr>
</tbody>
</table>

**III. Major Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
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<tbody>
<tr>
<td>A. BSAD 123 Business Law</td>
<td>3</td>
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<tr>
<td>B. SBMT 121 Small Business Management</td>
<td>3</td>
</tr>
<tr>
<td>C. SBMT 221 Small Business Finance</td>
<td>3</td>
</tr>
<tr>
<td>D. MRKT 222 Principles of Selling</td>
<td>3</td>
</tr>
<tr>
<td>E. SBMT 223 Entrepreneurship</td>
<td>3</td>
</tr>
<tr>
<td>F. CIS 220 Integrated Spreadsheet App.</td>
<td>3</td>
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**IV. Electives**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>A. CIS 130 BASIC Programming</td>
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</tr>
<tr>
<td>B. BSAD 226 Sales Management</td>
<td>3</td>
</tr>
<tr>
<td>C. PHIL 152 Logic</td>
<td>3</td>
</tr>
<tr>
<td>D. SBMT 222 Principles of Retailing</td>
<td>3</td>
</tr>
<tr>
<td>E. MRKT 227 Principles of Advertising</td>
<td>3</td>
</tr>
<tr>
<td>F. BSAD 225 International Business</td>
<td>3</td>
</tr>
<tr>
<td>G. BSAD 121 Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>H. ECON 292 Principles of Economics—Micro</td>
<td>3</td>
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<tr>
<td>I. ACCT 192 Principles of Accounting II</td>
<td>3</td>
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<tr>
<td>J. SBMT 700 Cooperative Education I</td>
<td>3</td>
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<tr>
<td>K. SBMT 705 Cooperative Education II</td>
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<tr>
<td>L. RLST 134 Principles of Real Estate</td>
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<tr>
<td>M. MRKT 226 International Marketing</td>
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</tr>
</tbody>
</table>

* Higher level courses for transfer

**CERTIFICATE REQUIREMENTS: SMALL BUSINESS MANAGEMENT**

(30 credit hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. ACCT 191 Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>B. BSAD 123 Business Law</td>
<td>3</td>
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<tr>
<td>C. MRKT 228 Principles of Marketing</td>
<td>3</td>
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<tr>
<td>D. CIS 128 Microcomputer Concepts</td>
<td>3</td>
</tr>
<tr>
<td>E. ECON 121 Introduction to Economics</td>
<td>3</td>
</tr>
<tr>
<td>F. SBMT 121 Small Business Management</td>
<td>3</td>
</tr>
<tr>
<td>G. SBMT 221 Small Business Finance</td>
<td>3</td>
</tr>
<tr>
<td>H. MRKT 222 Principles of Selling</td>
<td>3</td>
</tr>
<tr>
<td>I. ELECTIVES (Select two): ACCT 192 Principles of Accounting II</td>
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</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>CIS 220 Integrated Spreadsheet App.</td>
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</tr>
<tr>
<td>BSAD 122 Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BSAD 222 Personnel Management</td>
<td>3</td>
</tr>
<tr>
<td>SBMT 223 Entrepreneurship</td>
<td>3</td>
</tr>
<tr>
<td>SBMT 700 Cooperative Education I</td>
<td>3</td>
</tr>
<tr>
<td>MRKT 226 International Marketing</td>
<td>3</td>
</tr>
<tr>
<td>SBMT 705 Cooperative Education II</td>
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</tr>
</tbody>
</table>

**MARKETING**

A TWO-YEAR ASSOCIATE OF APPLIED SCIENCE DEGREE PROGRAM

61 CREDIT HOURS REQUIRED TO GRADUATE

**ABOUT OUR PROGRAM**

The Collin County Community College Associate of Applied Science degree in Marketing incorporates professional education courses to prepare individuals for career paths with retail or wholesale organizations, profit or non-profit service organizations, governmental agencies and academic institutions.

This program is designed to give a thorough background in aspects of marketing to students who desire such and to provide methods for improving skills for students already in a marketing career.

Students planning to transfer to a four-year institution should check with an academic adviser.
CAREER OPPORTUNITIES
The Associate of Applied Science degree in Marketing provides the essential core of marketing practices and prepares students for positions in:

- retailing
- wholesaling
- marketing management
- sales
- consulting
- directing
- promotion
- advertising
- industrial marketing management
- international marketing

ARTICULATION/TRANSFER AGREEMENT
Formal articulation and/or transfer agreements have been established allowing graduates with an Associate of Applied Science degree to continue their education in bachelor's degree programs at specific four-year universities. For detailed information contact the coordinator of the A.A.S. program or the director of articulation and transfer programs.

ASSOCIATE OF APPLIED SCIENCE DEGREE
REQUIREMENTS: MARKETING

I. General Education Core Credit Hours 22 credit hours
   A. CPSC 150 Introduction to Computers ..................3
   B. ECON 291 Principles of Economics — Macro .............3
   C. ENGL 151 Composition/Rhetoric I ..................3
   D. HUM 151 Introduction to Humanities ..................3
   E. MATH 150 Contemporary Mathematics or
         MATH 151 Pre-Calculus for Bus./Econ. .............3
   F. PSYC 121 Applied Psychology or
         PSYC 151 General Psychology ..................3
   G. SPCM 151 Fund of Speech Communication or
         SPCM 293 Business and Professional Speaking ..................3
   H. HPED Any Activity Course ..................1

II. Technical Program Core Credit Hours 15 credit hours
   A. ACCT 191 Principles of Accounting I ..................3
   B. BSAD 123 Business Law ................................3
   C. MRKT 222 Principles of Selling ..................3
   D. MRKT 228 Principles of Marketing ..................3
   E. SBMT 121 Small Business Management ..................3

III. Major Courses (8 credit hours)
   A. MRKT 227 Principles of Advertising ..................3
   B. MRKT 221 Market Research ..................3
   C. MRKT 223 Business Ethics ..................3
   D. MRKT 224 Promotion Techniques ..................3
   E. MRKT 226 International Marketing ..................3
   F. SBMT 222 Principles of Retailing ..................3

IV. Electives (6 credit hours)
   A. ADV 190 Survey of Advertising Art ..................3
   B. ADV 287 Visual Communications I ..................3
   C. JOUR 151 Intro. to Mass Communication ..................3
   D. MRKT 225 Fashion Show Production ..................3
   E. MRKT 297 Special Topics ..................3
   F. MRKT 700 Cooperative Education I ..................3
   G. MRKT 705 Cooperative Education II ..................3

* Higher level course necessary for transfer.

MARKETING
CERTIFICATE PROGRAM

CERTIFICATE REQUIREMENTS: MARKETING
(30 CREDIT HOURS)

A. BSAD 123 Business Law ................................3
   B. MRKT 221 Market Research ..................3
   C. MRKT 222 Principles of Selling ..................3
   D. MRKT 223 Business Ethics ..................3
   E. MRKT 224 Promotion Techniques ..................3
   F. MRKT 226 International Marketing ..................3
   G. MRKT 227 Principles of Advertising ..................3
   H. MRKT 228 Principles of Marketing ..................3
   I. SBMT 121 Small Business Management ..................3
   J. SBMT 222 Principles of Retailing ..................3

MARKETING
FASHION MARKETING

A TWO-YEAR ASSOCIATE OF APPLIED SCIENCE DEGREE PROGRAM
61 CREDIT HOURS REQUIRED TO GRADUATE

ABOUT OUR PROGRAM
The Collin County Community College Associate of Applied Science degree in Marketing with a major in Fashion Marketing incorporates both marketing and man-
agement 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 adviser.

**Career Opportunities**

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

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

**Articulation/Transfer Agreement**

Formal articulation and/or transfer agreements have been established allowing graduates with an Associate of Applied Science degree to continue their education in bachelor’s degree programs at specific four-year universities. For detailed information contact the coordinator of the A.A.S. program or the director of articulation and transfer programs.

**Associate of Applied Science Degree Requirements: Marketing/Fashion Marketing**

I. General Education Core

(22 credit hours)

- A. ENGL 151 Compositiod Rhetoric I ................. 3
- B. MATH 150 Contemporary Mathematics or ....... 3
  MATH 151 Precalculus for Bus./Econ.* ............. 3
- C. ECON 291 Principles of Economics—Macro ..... 3
- D. HUM 151 Introduction to Humanities ............. 3
- E. PSYC 121 Applied Psychology or .............. 3
  PSYC 151 General Psychology* ................. 3
- F. CPSC 150 Introduction to Computers ............ 3
- G. SPCM 151 Fundamentals of Speech Comm.** .... 3
- H. HPED Any Activity Course .................. 1

II. Technical Program Core

(12 credit hours)

- A. ACCT 191 Principles of Accounting I ............ 3
- B. MRKT 222 Principles of Selling .................. 3
- C. MRKT 228 Principles of Marketing ............... 3
- D. SBMT 121 Small Business Management .......... 3

III. Major Courses

(18 credit hours)

- A. MRKT 122 Fashion Marketing .................... 3
- B. MRKT 126 Fashion Design ....................... 3
- C. MRKT 220 Fashion Buying ....................... 3
- D. MRKT 221 Market Research ..................... 3
- E. MRKT 225 Fashion Show Production ............ 3
- F. SBMT 222 Principles of Retailing ............... 3

IV. Electives

(9 credit hours)

- A. SPCM 293 Business and Prof. Speaking ........... 3
- B. MRKT 700 Cooperative Education I ............ 3
- C. ART 298 Fibers I .................................. 3
- D. ADV 287 Visual Communications I ............. 3
- E. ACCT 192 Principles of Accounting II ........ 3
- F. BSAD 123 Business Law ...................... 3

*Higher level course necessary for transfer.

**SPCM 293 may be substituted.
MATHEMATICS
A TWO-YEAR ASSOCIATE OF SCIENCE DEGREE PROGRAM

60 CREDIT HOURS REQUIRED TO GRADUATE

ABOUT OUR PROGRAM
The mathematics program offers courses which meet general mathematics requirements for associate degrees and for transfer and technical programs. More advanced courses prepare students for majors in mathematics, science and engineering. All courses include calculator or computer use, and lab components "emphasize" applications of mathematical concepts. Mathematics instruction at CCCC features a well-qualified instructional staff and a mathematics laboratory providing personal, computer and audio-visual tutorial assistance.

CAREER OPPORTUNITIES
Mathematics majors have many potential career opportunities. They may provide technical assistance in business, engineering science, medicine and many other fields. In addition, a knowledge of mathematics plays a crucial role in providing access to a wide range of technical information in areas that are not so obviously dependent upon mathematics.

- actuary
- statistician
- teacher
- consultant
- operations researcher

ASSOCIATE OF SCIENCE DEGREE REQUIREMENTS:
MATHEMATICS

I. General Education Core
See page 42 for General Education Core requirements.

II. Recommended Electives Credit Hours
(14–16 credit hours)

A. ENGL 291 Technical Writing* 3
B. MATH 291 Calculus I 4
C. MATH 292 Linear Algebra 3
D. MATH 293 Differential Equations 3
E. CPSC 190 Programming Concepts I 3
F. ENGL 152 Sophomore Literature 3
G. PHIL 152 Logic 3

* See ENGL 291 course description

MUSIC
A TWO-YEAR ASSOCIATE OF ARTS DEGREE PROGRAM

60 CREDIT HOURS REQUIRED TO GRADUATE

ABOUT OUR PROGRAM
The music department offers a two-year Associate of Arts degree, emphasizing a strong curriculum of music theory, music literature, private study and ensemble participation. Opportunities to study recording techniques and curriculum in commercial music classes such as The Business of Music, Arranging, Introduction to Synthesizer, and Improvisation are also available to students interested in a career in the recording industry.

CAREER OPPORTUNITIES
- Music education
- Performer
- Audio engineer
- Recording technician
- Music retailer

ASSOCIATE OF ARTS DEGREE REQUIREMENTS: MUSIC

I. General Education Core
See page 40 for General Education Core requirements.

II. Recommended Electives Credit Hours
(14–16 credit hours)

A. MUS 291 Music Literature I 3
B. MUS 292 Music Literature II 3
C. MUS 140 Music Fundamentals 3
D. MUS 145 Music In America 3
E. MUS 150 chorus 1
F. MUS 151 Music Theory I 3
G. MUS 152 Aural Skills I 1
H. MUS 153 Music Theory II 3
I. MUS 154 Aural Skills II 1
J. MUS 155 Class Voice 3
K. MUS 156 Class Guitar 3
L. MUS 160 Band 1
M. MUS 167 Intro. to Synthesizer I 2
N. MUS 168 Intro. to Synthesizer II 2
O. MUS 170 Ensemble 1
P. MUS 191 Applied Music-Major 1
Q. MUS 251 Music Theory I 3
R. MUS 252 Aural Skills III 1
S. MUS 253 Music Theory IV 3
T. MUS 254 Aural Skills IV 1
U. MUS 256 Beginning Piano I 1
V. MUS 291 Music Literature I 3
W. MUS 292 Music Literature II 3

* See MUS 291 course description
NURSING
A TWO-YEAR ASSOCIATE OF APPLIED SCIENCE DEGREE PROGRAM

72 CREDIT HOURS REQUIRED TO GRADUATE

ABOUT OUR PROGRAM
This two-year Associate of Applied Science degree is offered to prepare the student to test for the Registered Nurse license. The nursing curriculum is approved by the Board of Nurse Examiners for the State of Texas and accrediting by the National League for Nursing Council of Associate Degree Programs is in progress.

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

CCCC has developed a direct transfer agreement with bachelor (B.S.N.) and master (M.S.N.) degree programs. Students planning to transfer to a four-year institution should check with an academic advisor.

CAREER OPPORTUNITIES
Registered nurses can expect excellent job opportunities. Recent studies in Collin County emphasize the need for registered nurses in hospitals, clinics, nursing homes and doctor's offices.

ARTICULATION/TRANSFER AGREEMENT
Formal articulation and/or transfer agreements have been established allowing graduates with an Associate of Applied Science degree to continue their education in bachelor's degree programs at specific four-year universities. For detailed information contact the coordinator of the A.A.S. program or the director of articulation and transfer programs.

SCHOLARSHIPS
Various scholarships are available to students when they have been accepted into the nursing program. Most scholarships are awarded based on financial need. Other types of monetary support are available through the Financial Aid Office.

ASSOCIATE OF APPLIED SCIENCE DEGREE REQUIREMENTS: NURSING

I. PRE-ENTRANCE REQUIREMENTS
(19 CREDIT HOURS)
A. MATH 151 Pre-Calculus for Bus./Econ. or ..........3
B. BIOL 191 General Biology I* ......................................... 4
C. BIOL 291 Anatomy and Physiology I ....................4
D. BIOL 292 Anatomy and Physiology II ................... 4
E. BIOL 293 Microbiology ........................................... 4

II. First Semester
(14 CREDIT HOURS)
A. NURS 147 Nursing I ............................................. 8
B. PSYC 151 General Psychology ................................. 3
C. ENGL 151 CompositiodRhetoric I ............................ 3

III. Second Semester
(15 CREDIT HOURS)
A. NURS 148 Nursing II ............................................. 8
B. PSYC 251 Life Span Psychology ................................. 3
C. ENGL 152 Composition/Rhetoric II ............................ 3
D. HPED Any Activity Course ........................................ 1

IV. Summer Session
(4 CREDIT HOURS)
A. NURS 244 Nursing III ............................................ 4

V. Fourth Semester
(12 CREDIT HOURS)
A. NURS 259 Nursing IV ............................................. 9
B. SOC 151 Intro. to Sociology or ................................. 3
C. SOC 152 Social Problems or ................................. 3
D. SOC 297 Death and Dying ........................................ 3

VI. Fifth Semester
(12 CREDIT HOURS)
A. NURS 269 Nursing ................................................. 9
B. Elective .............................................................. 3

Notes: Special admission criteria applies to this program and registration is by permission only. Applications can be obtained from the science and health division office.

Student placement in mathematics and English is based upon the results of tests and subjects completed before admission.

* Biology 191 is not counted toward degree requirements.

OFFICE ADMINISTRATION GENERAL
A TWO-YEAR ASSOCIATE OF APPLIED SCIENCE DEGREE PROGRAM

62 CREDIT HOURS 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, business telephone techniques and electronic memory calculators
• proofreading/editing—language applications for business correspondence and documents
• computers and spreadsheet software—hands-on experience with DOS, spreadsheet and integrated programs such as LOTUS 1-2-3 and Microsoft Works
• word processing—hands-on experience using software such as WordPerfect 5.0, 5.1, Microsoft Word 5.0 for document production and desktop publishing
• records management—ARMA filing rules, design and implementation of efficient and cost-effective system

The General *Office* program was created jointly by business and education leaders from DSC Communications, Electronic Data Systems, Fisher Control International, InteCom Incorporated, J.C. Penney Financial Services, Texas Instruments and Kelly Temporary Services.

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

*Note: Students completing the two-year *Office Occupations* program at Allen ISD, Denton ISD or Plano ISD may be eligible to receive articulated credit. See "Customized Articulation Programs" in this catalog.

**Career Opportunities**

"Classifieds" for those with general office training would include:

• **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 IO-key skills required.

**Articulation/Transfer Agreement**

Formal articulation and/or transfer agreements have been established allowing graduates with an Associate of Applied Science degree to continue their education in bachelor’s degree programs at specific four-year universities. For detailed information contact the coordinator of the A.A.S. program or the director of articulation and transfer programs.

**ASSOCIATE OF APPLIED SCIENCE DEGREE REQUIREMENTS: OFFICE ADMINISTRATION/GENERAL**

I. General Education Core Credit Hours (22 credit hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. ENGL 151</td>
<td>Composition/Rhetoric I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>B. SPCM 151</td>
<td>Fundamentals of Speech</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>C. MATH 150</td>
<td>Contemporary Mathematics or</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>D. MATH 151</td>
<td>Pre-Calc for Bus./Econ.</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>E. CPSC 150</td>
<td>Introduction to Computers</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>F. HUM 151</td>
<td>Introduction to Humanities</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>G. PSYC 121</td>
<td>Applied Psychology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>H. HPED</td>
<td>Any Activity Course</td>
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II. Technical Program Core Credit Hours (16 credit hours)

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<th>Course</th>
<th>Code</th>
<th>Title</th>
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<tr>
<td>A. OFAD 121</td>
<td>Intermediate Typewriting*</td>
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<tr>
<td>B. OFAD 122</td>
<td>Advanced Typewriting*</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>C. OFAD 131</td>
<td>Records Management*</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>D. OFAD 132</td>
<td>Proofreading/Editing*</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>E. OFAD 223</td>
<td>Word Processing I*</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>F. CIS 128</td>
<td>Microcomputer Concepts</td>
<td>3</td>
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III. Major Courses Credit Hours (12 credit hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
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<tr>
<td>A. OFAD 134</td>
<td>Electronic Calculator*</td>
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</tr>
<tr>
<td>B. OFAD 230</td>
<td>Office Procedures</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>C. OFAD 224</td>
<td>Word Processing II*</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>D. ACCT 131</td>
<td>Elementary Accounting*</td>
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IV. Electives Credit Hours (12 credit hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. OFAD 135</td>
<td>Business Correspondence</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>B. OFAD 220</td>
<td>Word Processing Software</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>C. OFAD 225</td>
<td>Machine Transcription</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>D. OFAD 226</td>
<td>Word Processing III</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>E. OFAD 700</td>
<td>Cooperative Education I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>F. OFAD 705</td>
<td>Cooperative Education II</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>G. BSAD 121</td>
<td>Introduction to Business</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>H. BSAD 122</td>
<td>Principles of Management</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>I. BSAD 123</td>
<td>Business Law</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>J. CIS 220</td>
<td>Integrated Spreadsheet Appl.</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

These courses also apply toward the Office Support Certificate.
OFFICE ADMINISTRATION
MEDICAL

A two-year Associate of Applied Science degree program
62 credit hours 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, accounting systems, fees and payments
- computers and spreadsheet software — hands-on experience with DOS, spreadsheet and integrated programs such as LOTUS 1-2-3 and Microsoft Works
- word processing — hands-on experience using software such as WordPerfect 5.0, 5.1, and Microsoft Word 5.0 for document production and desktop publishing

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

Note: Students completing the two-year Office Occupations program at Allen ISD, Denton ISD or Plano ISD may be eligible to receive articulated credit. See "Customized Articulation Programs" in this catalog.

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

ARTICULATION/TRANSFER AGREEMENT

Formal articulation and/or transfer agreements have been established allowing graduates with an Associate of Applied Science degree to continue their education in bachelor’s degree programs at specific four-year universities. For detailed information contact the coordinator of the A.A.S. program or the director of articulation and transfer programs.

ASSOCIATE OF APPLIED SCIENCE DEGREE
REQUIREMENTS: OFFICE ADMINISTRATION/MEDICAL

I. General Education Core

(22 credit hours)

A. ENGL 151 Composition/Rhetoric I ........................ 3
B. SPCM 151 Fundamentals of Speech ........................ 3
C. MATH 150 Contemporary Mathematics or ................ 3
    MATH 151 Precalculus for Bus./Econ. ..................... 3
D. CPSC 150 Introduction to Computers ...................... 3
E. HUM 151 Introduction to Humanities ...................... 3
F. PSYC 121 Applied Psychology .............................. 3
G. ECON 121 Introduction to Economics ...................... 3
H. HPED Any Activity Course ................................. 1

II. Technical Program Core

(16 credit hours)

A. OFAD 121 Intermediate Typewriting* ..................... 3
B. OFAD 122 Advanced Typewriting* ......................... 3
C. OFAD 131 Records Management* .......................... 2
D. OFAD 132 Proofreading/Editing ............................ 2
E. OFAD 223 Word Processing I* ............................. 3
F. CIS 128 Microcomputer Concepts .......................... 3

III. Major Courses

(11 credit hours)

A. OFAD 224 Word Processing II* ............................ 3
B. OFAD 225 Machine Transcription* ......................... 3
C. OFAD 237 Medical Office Procedures* ................... 3
D. ACCT 131 Elementary Accounting* ........................ 3
E. HLSC 132 Medical Terminology" ........................ 3

IV. Electives

(9 credit hours)

A. OFAD 126 Beginning Shorthand ............................ 3
B. OFAD 127 Intermediate Shorthand ........................ 3
C. OFAD 134 Electronic Calculator .......................... 3
D. OFAD 135 Business Correspondence ...................... 3
E. OFAD 220 Word Processing Software ..................... 3
F. OFAD 226 Word Processing III ............................. 3
G. OFAD 700 Cooperative Education I ....................... 3
H. OFAD 705 Cooperative Education II ...................... 3
I. CIS 220 Integrated Spreadsheet Appl ..................... 3

These courses also apply toward the Medical Certificate.
OFFICE ADMINISTRATION
SECRETARIAL

A two-year Associate of Applied Science Degree Program

62 credit hours required to graduate

ABOUT OUR PROGRAM

The degree in Office Administration—Secretarial is designed to prepare the student for an automated office environment. This program enables the student to master office skills and 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
- Computer applications—word processing, desktop publishing, spreadsheet and integrated programs using software such as WordPerfect 5.0/5.1, Microsoft Word 5.0, LOTUS 1-2-3, Microsoft Works, DOS
- Records management—ARMA filing rules, design and implementation of cost-effective systems that maintain efficient access to business records
- Certified Professional Secretary Preparation—prestigious credentials for the experienced secretary

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

Note: Students completing the two-year Office Occupations program at Allen ISD, Denton ISD or Plano ISD may be eligible to receive articulated credit. See "Customized Articulation Programs" in this catalog.

CAREER OPPORTUNITIES

Recent surveys of Collin County businesses indicate secretarial office jobs will continue to increase through the 1990s. Current technology 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. Basic shorthand skills continue to give secretaries an edge both in entry-level jobs and in opportunities for promotion.

Courses required for the A.A.S. Secretarial degree are also excellent preparation for the experienced secretary who plans to take the Certified Professional Secretary exam. The secretary who has already passed the CPS exam may apply for academic credit from CCCC to be applied toward the A.A.S. degree in Office Administration.

ARTICULATION/TRANSFER AGREEMENT

Formal articulation and/or transfer agreements have been established allowing graduates with an Associate of Applied Science degree to continue their education in bachelor's degree programs at specific four-year universities. For detailed information contact the coordinator of the A.A.S. program or the director of articulation and transfer programs.

ASSOCIATE OF APPLIED SCIENCE DEGREE

REQUIREMENTS: OFFICE ADMINISTRATION/SECRETARIAL

I. General Education Core

(22 credit hours)

A. ENGL 151 Compositional Rhetoric I 3
B. SPCM 151 Fundamentals of Speech Comm. 3
C. MATH 150 Contemporary Mathematics or 3
MATH 151 Pre-Calculus for Bus./Econ. 3
D. CPSC 150 Introduction to Computers 3
E. HUM 151 Introduction to Humanities 3
F. PSYC 121 Applied Psychology 3
G. ECON 121 Introduction to Economics 3
H. HPED Any Activity Course 1

II. Technical Program Core

(16 credit hours)

A. OFAD 121 Intermediate Typewriting* 3
B. OFAD 122 Advanced Typewriting 3
C. OFAD 131 Records Management* 2
D. OFAD 132 Proofreading/Editing* 2
E. OFAD 223 Word Processing I* 3
F. CIS 128 Microcomputer Concepts 3

III. Major Courses

(15 credit hours)

A. OFAD 135 Business Correspondence 3
B. OFAD 224 Word Processing II* 3
C. OFAD 225 Machine Transcription 3
D. OFAD 230 Office Procedures 3
E. ACCT 131 Elementary Accounting 3

IV. Electives

(9 credit hours)

A. OFAD 126 Beginning Shorthand 3
B. OFAD 127 Intermediate Shorthand 3
C. OFAD 134 Electronic Calculator* 3
D. OFAD 220 Word Processing Software* 3
E. OFAD 226 Word Processing III* 3
F. OFAD 700 Cooperative Education I 3
G. OFAD 705 Cooperative Education II 3
H. CIS 220 Integrated Spreadsheet Appl. 3
The Medical Office Certificate program is a one-year program designed to prepare individuals for entry-level positions in a medical office or health care facility.

**Certificate Requirements: Medical Office**

(26 credit hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFAD 121</td>
<td>Intermediate Typewriting</td>
<td>3</td>
</tr>
<tr>
<td>OFAD 122</td>
<td>Advanced Typewriting</td>
<td>3</td>
</tr>
<tr>
<td>OFAD 131</td>
<td>Records Management</td>
<td>2</td>
</tr>
<tr>
<td>OFAD 223</td>
<td>Word Processing I</td>
<td>3</td>
</tr>
<tr>
<td>OFAD 224</td>
<td>Word Processing II/Medical</td>
<td>3</td>
</tr>
<tr>
<td>OFAD 225</td>
<td>Machine Transcription/Medical</td>
<td>3</td>
</tr>
<tr>
<td>OFAD 237</td>
<td>Medical Office Procedures</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 131</td>
<td>Elementary Accounting</td>
<td>3</td>
</tr>
<tr>
<td>HLS 132</td>
<td>Medical Terminology</td>
<td>3</td>
</tr>
</tbody>
</table>

**Office Support**

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

**Certificate Requirements: Office Support**

(22 credit hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFAD 121</td>
<td>Intermediate Typewriting</td>
<td>3</td>
</tr>
<tr>
<td>OFAD 122</td>
<td>Advanced Typewriting</td>
<td>3</td>
</tr>
<tr>
<td>OFAD 131</td>
<td>Records Management</td>
<td>2</td>
</tr>
<tr>
<td>OFAD 132</td>
<td>Proofreading/Editing</td>
<td>2</td>
</tr>
<tr>
<td>OFAD 134</td>
<td>Electronic Calculator</td>
<td>3</td>
</tr>
<tr>
<td>OFAD 223</td>
<td>Word Processing I</td>
<td>3</td>
</tr>
<tr>
<td>OFAD 224</td>
<td>Word Processing II</td>
<td>3</td>
</tr>
</tbody>
</table>

**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.

**Certificate Requirements: Word Processing**

(25 credit hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFAD 121</td>
<td>Intermediate Typewriting</td>
<td>3</td>
</tr>
<tr>
<td>OFAD 122</td>
<td>Advanced Typewriting</td>
<td>3</td>
</tr>
<tr>
<td>OFAD 131</td>
<td>Records Management</td>
<td>2</td>
</tr>
<tr>
<td>OFAD 132</td>
<td>Proofreading/Editing</td>
<td>2</td>
</tr>
<tr>
<td>CIS 128</td>
<td>Microcomputer Concepts</td>
<td>3</td>
</tr>
<tr>
<td>OFAD 223</td>
<td>Word Processing I</td>
<td>3</td>
</tr>
<tr>
<td>OFAD 224</td>
<td>Word Processing II</td>
<td>3</td>
</tr>
<tr>
<td>CIS 220</td>
<td>Integrated Spreadsheet App.</td>
<td>3</td>
</tr>
</tbody>
</table>

*Note: Students completing the two-year Office Occupations program at Allen ISD, Denton ISD or Plano ISD may be eligible to receive articulated credit. See "Customized Articulation Program" in this catalog.*

**Philosophy**

A Two-Year Associate of Arts Degree Program

60 Credit Hours Required to Graduate

**About Our Program**

The philosophy program seeks to develop men and women dedicated to the pursuit of knowledge. Students become acquainted with the main problems of philosophy and acquire the habit of philosophical thinking which will enable them to integrate their work and lives.

**Career Opportunities**

- Preparation for those who plan to major in philosophy at a four-year institution
- Preparation for related fields such as law, government, education, and the humanities

**Associate of Arts Degree Requirements: Philosophy**

**I. General Education Core**

See page 40 for General Education Core requirements.

**II. Recommended Electives**

(14–16 credit hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 151</td>
<td>Introduction to Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 152</td>
<td>Logic</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 153</td>
<td>Ethics</td>
<td>3</td>
</tr>
</tbody>
</table>
PHOTOGRAPHY
A TWO-YEAR ASSOCIATE OF ARTS DEGREE PROGRAM

60 CREDIT HOURS REQUIRED TO GRADUATE

ABOUT OUR PROGRAM

The photography program provides an opportunity to acquire the various technical and aesthetic skills necessary to prepare for a career in professional photography. The program is designed to meet the needs of the fine arts photographer and the commercially directed photographer.

For commercial photography, instructional emphasis is offered in product illustration, news photography, color processing and printing, the portrait, large format photography and digital photography. For fine arts photography, courses are offered in landscape, portrayal, large format cameras and the zone system, non-silver printing and portfolio.

The student can complete a two-year degree program and receive the Associate of Art with a major in photography, or complete the 45 hours of commercial photography courses to receive the Certificate in Commercial Photography.

CAREER OPPORTUNITIES

Jobs in photography vary and can be applied to related disciplines:
- Portrait studio
- Commercial illustration
- Product catalog illustration
- Industrial photography
- Digital image manipulation
- Multimedia presentation
- Freelance work
- Photo lab technician
- Architectural photographer
- Historical documentary photographer

ASSOCIATE OF ARTS DEGREE REQUIREMENTS:
PHOTOGRAPHY

I. General Education Core
See page 40 for General Education Core requirements.

II. Recommended Electives Credit Hours
(14-16 credit hours)

A. PHO 180 Photography I .......... 3
B. PHO 181 Photography II .......... 3
C. PHO 280 Portrayal ................. 3
D. PHO 281 Contemp. Studies in the Visual Arts .. 3
E. PHO 290 Photo Illustration ......... 3
F. PHO 291 News Photography ....... 3
G. PHO 298 History of Photography ... 3
H. PHO 299 History of Film Making ... 3

PHYSICAL EDUCATION
A TWO-YEAR ASSOCIATE OF SCIENCE DEGREE PROGRAM

60 CREDIT HOURS REQUIRED TO GRADUATE

ABOUT OUR PROGRAM

Students may earn an Associate of Science degree with an emphasis in physical education. The degree program emphasizes the interrelatedness of several fields of study. Physical skills and knowledge are acquired through the physical education activity and theory classes. Offerings in the humanities, social sciences and biological sciences also prepare the student for a career in physical education.

CAREER OPPORTUNITIES

Physical education offers challenging, rewarding careers. Listed below are some of the possibilities, many of which may require training beyond the Associate of Science degree.
- athletic director
- athletic trainer
- coach
- fitness center instructor
- recreation coordinator
- sports administrator
- sports medicine
- teacher

ASSOCIATE OF SCIENCE DEGREE REQUIREMENTS:
PHYSICAL EDUCATION

I. General Education Core
See page 42 for General Education Core requirements.
II. Recommended Electives

<table>
<thead>
<tr>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>(14–16 credit hours)</td>
</tr>
<tr>
<td>A. BIOL 291 Anatomy and Physiology I 4</td>
</tr>
<tr>
<td>B. BIOL 292 Anatomy and Physiology II 4</td>
</tr>
<tr>
<td>C. HPED 101 Introduction to Physical Education 3</td>
</tr>
<tr>
<td>D. HPED 103 Personal Health 3</td>
</tr>
<tr>
<td>E. PSYC 151 General Psychology 3</td>
</tr>
<tr>
<td>F. HPED Any Activity Course 1–3</td>
</tr>
</tbody>
</table>

PHYSICS

A two-year Associate of Science Degree Program

60 credit hours required to graduate

About Our Program

The science of physics seeks to understand the physical universe and deals with the behavior of matter and energy at the most fundamental level. By observation, physicists search for the basic principles that explain natural phenomena. The concepts of physics overlap many disciplines. A knowledge of physics provides a strong background for careers in science, engineering, computer technology or education.

The CCCC Associate of Science degree with an emphasis in physics prepares the student to pursue university studies leading to a bachelor’s degree. The basis AS program, at the General Physics level, will prepare the student for further education in fields such as biology, medicine or secondary education. Students seeking a bachelor's degree in fields such as physics, engineering or computer science will require the College Physics level more advanced mathematics and physics.

Students planning to transfer to a four-year institution should check with the specific degree plan requirements of their intended major.

Degree Requirements

The Associate of Science degree with physics emphasis requires the General Education Core requirements for the A.S. degree offered by CCCC. Depending on the career plans of the student, the physics emphasis will be at either the general physics or the college physics level.

Career Opportunities

Physics students may select a career in a wide range of scientific and technical fields. The student should bear in mind that most of these career areas require education or training beyond the Associate of Science degree. Career fields available to the physics student include:

- aerospace technology
- astronomy
- biophysics
- chemistry
- computer science
- elementary or secondary education
- engineering-civil, electrical or industrial
- geophysics
- hydrogeology
- medicine
- meteorology
- patent law
- physics
- seismology

Associate of Science Degree Requirements: PHYSICS

I. General Education Core

See page 42 for General Education Core requirements.

General Physics Level

Students should select math and physics courses from the General Education Core.

College Physics Level

Mathematics: 8 credit hours

Students seeking advanced degrees in science and engineering fields can substitute these higher level math and physics sequences for the A.S. degree.

A. MATH 191 Calculus I 4
B. MATH 192 Calculus II 4

Physics: 8 credit hours

See coordinator/adviser for additional information.

A. PHYS 291 College Physics I 4
B. PHYS 292 College Physics II 4

II. Recommended Electives

<table>
<thead>
<tr>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>(14–16 credit hours)</td>
</tr>
<tr>
<td>MATH 183 Analytic Geometry (General Level) 3</td>
</tr>
<tr>
<td>MATH 187 Pre-Calculus (General Level) 3</td>
</tr>
<tr>
<td>MATH 291 Calculus III (College Level) 4</td>
</tr>
<tr>
<td>MATH 292 Linear Algebra (College Level) 3</td>
</tr>
<tr>
<td>MATH 293 Differential Equations (College) 3</td>
</tr>
<tr>
<td>CPSC 190 Programming Concepts I 3</td>
</tr>
<tr>
<td>CHEM 191 General Chemistry I 4</td>
</tr>
<tr>
<td>CHEM 192 General Chemistry II 4</td>
</tr>
<tr>
<td>PSCI 153 Elementary Astronomy 4</td>
</tr>
<tr>
<td>ENGL 291 Technical Writing* 3</td>
</tr>
</tbody>
</table>

* See ENGL 291 course description.
**POLITICAL SCIENCE**

A Two-Year Associate of Arts Degree Program

**60 Credit Hours Required to Graduate**

**About Our Program**

The political science program features introductory courses in American and Texas politics, International Relations and Comparative Politics. The courses emphasize contemporary political analysis, critical thinking and hands-on experiential learning exercises.

**Career Opportunities**

An Associate of Arts degree in Political Science is a stepping stone to a liberal arts education whose second step is a bachelor’s degree from a four-year institution. Persons who major in political science often aspire to attend law school, anticipate a career in education or desire the broad background inherent in a liberal arts education which is valued by employers in all areas.

**Associate of Arts Degree Requirements:** Political Science

I. General Education Core

See page 40 for General Education Core requirements.

II. Recommended Electives

(14–16 credit hours)

A. PLSC 155 Introduction to Political Science ............. 3
B. PLSC 263 International Relations ..................... 3
C. PLSC 264 Comparative Politics ....................... 3
D. CPSC 190 Programming Concepts I ................... 3
E. CPSC 191 Programming Concepts II .................. 3
F. CRJS 152 Introduction to Criminal Justice .......... 3
G. ECON 291 Principles of Economics–Macro .......... 3
H. ECON 292 Principles of Economics–Micro .......... 3
I. ENGL 150 Sophomore Literature .................... 3
J. Foreign Language Sequence I ....................... 4
K. Foreign Language Sequence II ..................... 4
L. PHIL 152 Logic ......................................... 3
M. PHIL 153 Ethics ......................................... 3
N. PSYC 151 General Psychology ..................... 3
O. SPCM 152 Public Speaking ......................... 3
P. SPCM 191 Argumentation and Debate ............. 3

**PRE-DENTAL/PRE-MEDICAL**

A Two-Year Associate of Science Degree Program

**60 Credit Hours Required to Graduate**

**About Our Program**

This program provides a background in science as required for admission to medical or dental school, or for other health-related career training programs. While all of the electives listed are recommended for students planning to enter the medical or dental field, the Associate of Science degree may be earned with emphasis on biology, chemistry or physics. Additional courses also are available to broaden the student’s understanding of the function of the human body, and advisers with experience in medical fields can help prepare the student for future studies.

**Career Opportunities**

In addition to preparing the student for further bachelor’s degree work leading to medical or dental school, this major also provides the background for direct entry into numerous programs leading to a health care profession upon completion of the bachelor’s degree. Related training that might be entered from this major include programs in:

- physician’s assistance
- health services
- administration
- health care education
- clinical nutrition
- geriatric services
- prosthetics
- orthotics
- medical laboratory technology
- physical therapy
- rehabilitation sciences

**Associate of Science Degree Requirements:** Pre-Dental/Pre-Medical

I. General Education Core

See page 42 for General Education Core requirements.

II. Recommended Electives

(14–16 credit hours)

A. CHEM 191 General Chemistry I ..................... 4
B. CHEM 192 General Chemistry II ................... 4
C. CHEM 291 Organic Chemistry I ................... 4
D. CHEM 292 Organic Chemistry II ................... 4
E. BIOL 291 Anatomy and Physiology I .............. 4
**PSYCHOLOGY**

**A two-year Associate of Arts degree program**

**60 credit hours required to graduate**

**About Our Program**

The psychology program features a variety of introductory courses exploring the nature of behavior and mental processes. Featured courses include general psychology, applied psychology and life-span psychology. These courses emphasize current psychological theory and research, as well as the practical application of the basic principles of psychology to the student’s daily life. Many courses in the program require participation in hands-on, experiential laboratory exercises which further emphasize practical application of course material.

**Career Opportunities**

An Associate of Arts Degree in Psychology serves as a foundation on which continued studies in psychology may be built. Since most careers in psychology require a graduate degree, many students continue on to four-year institutions and eventually enter graduate school in psychology. Students who earn degrees in psychology are often employed as counselors, psychotherapists and mental health workers. With further study, a psychology degree may also be used as a stepping-stone to a career in education, business, law or medicine.

**Associate of Arts Degree Requirements: Pre-Law**

I. General Education Core

See page 40 for General Education Core requirements.

II. Recommended Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. PSYC 151 General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>B. PSYC 152 Psychology of Adjustment</td>
<td>3</td>
</tr>
<tr>
<td>C. PSYC 153 Human Sexuality</td>
<td>3</td>
</tr>
<tr>
<td>D. PSYC 251 Life-span Psychology</td>
<td>3</td>
</tr>
<tr>
<td>E. PSYC 252 Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>F. PSYC 253 Psychology of Personality</td>
<td>3</td>
</tr>
<tr>
<td>G. PSYC 297 Selected Topics in Psychology</td>
<td>3</td>
</tr>
<tr>
<td>H. SOC 151 Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>I. SOC 152 Social Problems</td>
<td>3</td>
</tr>
<tr>
<td>J. SOC 251 Marriage and Family</td>
<td>3</td>
</tr>
<tr>
<td>K. SOC 297 Selected Topics in Sociology</td>
<td>3</td>
</tr>
</tbody>
</table>
REAL ESTATE
A TWO-YEAR ASSOCIATE OF APPLIED SCIENCE DEGREE PROGRAM

63 CREDIT HOURS 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, completion of a certificate program, 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
• closing

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

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

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. Some of the possibilities are:
• brokerage
• appraisal
• finance
• property development
• counseling
• education
• insurance

ARTICULATION/TRANSFER AGREEMENT
Formal articulation and/or transfer agreements have been established allowing graduates with an Associate of Applied Science degree to continue their education in bachelor’s degree programs at specific four-year universities. For detailed information contact the coordinator of the A.A.S. program or the director of articulation and transfer programs.

ASSOCIATE OF APPLIED SCIENCE DEGREE REQUIREMENTS: REAL ESTATE

I. General Education Core
(22 credit hours)
A. ENGL 151 Composition/Rhetoric I 3
B. ENGL 152 Composition/Rhetoric II 3
C. MATH 150 Contemporary Mathematics or 3
MATH 151 Pre-Calculus for Bus./Econ. 3
D. ECON 121 Introduction to Economics 3
E. PSYC 121 Applied Psychology or 3
PSYC 151 General Psychology 3
F. HUM 151 Introduction to Humanities 3
G. CPSC 150 Introduction to Computers 3
H. HPED Any Activity Course 1

II. Technical Program Core
(8 credit hours)
A. OFAD 133 Computer Keyboarding 2
B. SPCM 151 Fundamentals of Speech Comm 3
C. BSAD 121 Introduction to Business 3

III. Major Courses
(18 credit hours)
A. RLST 133 Real Estate Principles I 3
B. RLST 134 Real Estate Principles II 3
C. RLST 136 Real Estate Math 3
D. RLST 138 Real Estate Sales and Mktg 3
E. RLST 139 Real Estate Law-Contracts 3
F. RLST 235 Real Estate Finance 3

IV. Electives
(15 credit hours)
MAJOR—MINIMUM 6 CREDIT HOURS
A. RLST 135 Real Estate Appraisal 3
B. RLST 236 RE Property Management 3
C. RLST 234 Real Estate Investments 3
D. RLST 237 Real Estate Law 3
E. RLST 238 Title, Abstract, Escrow 3
F. RLST 700 Cooperative Work Experience I 3
G. RLST 241 Real Estate Commercial 3
H. RLST 242 Real Estate Finance Analysis 3
I. RLST 251 Real Estate Brokerage 3

RELA 185 Special Topics 1-3
A. ACCT 191 Principles of Accounting I 3
B. CIS 220 Integrated Spreadsheet Appl 3
C. BSAD 122 Principles of Management 3
**Real Estate**

**Certificate Program**

(30 credit hours)

**Certificate Requirements: Real Estate**

A. RLST 133 Real Estate Principles I .............. 3
B. RLST 134 Real Estate Principles .............. 3
C. RLST 135 Real Estate Appraisal .............. 3
D. RLST 136 Real Estate Math or .................. 3
   RLST 242 Real Estate Fin. Analysis ........ 3
E. RLST 138 Real Estate Sales and Marketing ...... 3
F. RLST 139 Real Estate Law /Contracts ........... 3
G. RLST 235 Real Estate Finance .............. 3
H. RLST 237 Real Estate Law .................. 3
I. ELECTIVES: Select two:
   RLST 234 Real Estate Investments .............. 3
   RLST 236 Real Estate Property Mgmt. .......... 3
   RLST 238 Real Estate Title, Abstract ........ 3
   and Escrow
   RLST 700 Cooperative Work Experience ........ 3
   RLST 241 Real Estate Commercial .............. 3
   RLST 242 Real Estate Financial Analysis ...... 3
   RLST 251 Real Estate Brokerage .............. 3

Other course work as approved.

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**Respiratory Care**

A two-year Associate of Applied Science degree program

72 credit hours required to graduate

**About Our Program**

Respiratory care offers two programs which prepare individuals for an allied health specialty in clinical care and management of respiratory disorders. The 12-month program leads to a certificate of proficiency and qualifies the graduate to apply for the Certified Respiratory Therapy Technician board examination. The 22.5 month program graduates a student with an Associate in Applied Science degree and qualifies the individual to apply for the Registered Respiratory Therapist board examination.

The curriculum for the certificate program is included in the registry curriculum which is expanded with academic come.

**Career Opportunities**

Career opportunities in the health care industry for certified respiratory therapy technicians and registered respiratory therapists are increasing rapidly. Recent surveys indicate that the supply of trained respiratory care professionals has not been sufficient to meet the progressive growth in demand.

Employment opportunities include:
- Certified Respiratory Therapy Technician (CRTT)
- Registered Respiratory Therapist (RRT)

**Articulation/Transfer Agreement**

Formal articulation and/or transfer agreements have been established allowing graduates with an Associate of Applied Science degree to continue their education in bachelor's degree programs at specific four-year universities. For detailed information contact the coordinator of the A.A.S. program or the director of articulation and transfer programs.

**Associate of Applied Science Degree Requirements: Respiratory Care Technology (Cardiopulmonary)**

**Certification Eligibility Option**

**I. Semester One**

(16 credit hours)

A. RTTP 112 Cardiopulmonary Anatomy .............. 2
   and Physiology
B. RTTP 113 Respiratory Chemistry/Physics* .......... 3
C. RTTP 114 Respiratory Clinical Practicum I .......... 4
D. RTTP 115 Fundamentals of Resp. Case I .......... 4
**Sociology**

A two-year Associate of Arts Degree Program

**60 credit hours required to graduate**

**About Our Program**

The sociology program has been designed to provide students with essential life skills to help them better understand themselves and the world around them. Sociology courses at CCCC will enable all students to comprehend the tremendous social change brought about by the transition of our world into the Information Age. Sociology helps us to better understand how human behavior is influenced by social forces which exist in the world. Students will develop critical thinking skills and a global perspective which will benefit them regardless of their major in college. Sociology majors or minors will gain a solid foundation in the discipline which will prepare them for transferring into a university program.

**Career Opportunities**

The majority of students who select sociology as their focus at the community college level transfer into a four-year program. There are career opportunities available in entry level positions with social service agencies upon completion of an associate’s degree. Sociology is an excellent minor for students considering careers in business, law, medicine or psychology. The knowledge gained from sociology courses will enhance a student’s chances of being successful in accomplishing their career and life goals.

Sociology majors typically seek careers in teaching social services or research and planning in governmental or corporate settings.

**Associate of Arts Degree Requirements:**

**Sociology**

**I. General Education Core**

See page 40 for General Education Core requirements.

**II. Recommended Electives**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>A. SOC 151 Introduction to Sociology</td>
<td>3</td>
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<tr>
<td>B. SOC 152 Social Problems</td>
<td>3</td>
</tr>
<tr>
<td>C. SOC 153 Human Sexuality</td>
<td>3</td>
</tr>
<tr>
<td>D. SOC 251 Marriage and Family</td>
<td>3</td>
</tr>
<tr>
<td>E. SOC 252 Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>F. SOC 253 Minority Studies</td>
<td>3</td>
</tr>
<tr>
<td>G. SOC 297 Selected Topics in Sociology</td>
<td>3</td>
</tr>
<tr>
<td>H. PSYC 151 General Psychology</td>
<td>3</td>
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</table>

**Semester Two**

<table>
<thead>
<tr>
<th>(5 credit hours)</th>
<th>Course</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>A. RTPP 120 Respiratory Pathophysiology</td>
<td>3</td>
<td></td>
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<tr>
<td>B. RTPP 122 Respiratory Pharmacology</td>
<td>2</td>
<td></td>
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<tr>
<td>C. RTPP 123 Respiratory Clinical Practicum II</td>
<td>2</td>
<td></td>
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<tr>
<td>D. RTPP 124 Fundamentals of Resp. Care II</td>
<td>4</td>
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<tr>
<td>E. BIOL 291 Anatomy and Physiology I**</td>
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**Semester Three**

<table>
<thead>
<tr>
<th>(5 credit hours)</th>
<th>Course</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>A. RTPP 125 Respiratory Clinical Practicum III</td>
<td>3</td>
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<tr>
<td>B. RTPP 127 Critical Care</td>
<td>2</td>
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**Semester Four**

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<thead>
<tr>
<th>(5 credit hours)</th>
<th>Course</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>A. RTPP 121 Neonatal and Pediatric Resp. Care</td>
<td>2</td>
<td></td>
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<tr>
<td>A. RTPP 126 Respiratory Clinical Practicum IV</td>
<td>3</td>
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</table>

**First Year Total = 41**

Prerequisite/Co-requisite: MATH 151, 181 or permission from the program director.

**Regency Eligible CRTT-RRT Transition Curriculum**

**V. Semester Five**

<table>
<thead>
<tr>
<th>(16 credit hours)</th>
<th>Course</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>A. RTPP 213 Clinical Practicum V</td>
<td>2</td>
<td></td>
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<tr>
<td>B. RTPP 214 Advanced Respiratory Care I</td>
<td>4</td>
<td></td>
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<tr>
<td>C. RTPP 215 Cardiopulmonary Dynamics</td>
<td>3</td>
<td></td>
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<tr>
<td>D. BIOL 292 Anatomy and Physiology II</td>
<td>4</td>
<td></td>
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<tr>
<td>E. Elective Social or Behavioral Sciences</td>
<td>3</td>
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**VI. Semester Six**

<table>
<thead>
<tr>
<th>(15–16 credit hours)</th>
<th>Course</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>A. RTPP 220 Resp. Care Clinical Specialties</td>
<td>3</td>
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<tr>
<td>B. RTPP 221 Advanced Respiratory Care II</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>C. RTPP 223 Clinical Practice VI</td>
<td>2</td>
<td></td>
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<tr>
<td>D. BIOL 293 Microbiology</td>
<td>4</td>
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<tr>
<td>E. HPE 252 Any Activity Course (optional)</td>
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<tr>
<td>F. ENGL 151 Composition/Rhetoric I</td>
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**Second Year Total = 32**

Students must pass each respiratory care course with a minimum of a 2.5 on a 4.0 scale and each science-related course with a 2.0 in order to apply for a certificate of completion for either the certification preparation option or the registry preparation option.

Note: Special admission criteria applies to this program and registration is by permission only. See coordinator/advisor for additional information.
I. PSYC 251  Life Span Psychology .................. 3  
J. PSYC 253  Psychology of Personality .............3 
K. PSYC 297  Selected Topics in Psychology .........3 

SPANISH  
A TWO-YEAR ASSOCIATE OF ARTS DEGREE PROGRAM  

60 CREDIT HOURS REQUIRED TO GRADUATE  

ABOUT OUR PROGRAM  
An associate of arts degree with an emphasis in Spanish provides the essential language background for the advanced study of Spanish, for the mastery of the competencies in listening, speaking, and writing the language, and for a more rapid acquisition of other foreign languages (particularly Romance languages like French.) The courses are oral-proficiency based in order to enable the student to converse in Spanish as quickly as possible.  

CAREER OPPORTUNITIES  
Because of the growing number of Hispanics in this area and the blossoming United States/Mexico trade, the demand for Spanish both in the community and the business environment is growing rapidly. The impact of new international trade agreements means more need for Spanish-speaking individuals. Combining Spanish with another field can enlarge opportunities in the areas of nursing, teaching, computer science, sociology, banking, counseling, legal and para-legal areas to name just a few.  

ASSOCIATE OF ARTS Degree REQUIREMENTS: SPANISH  

I. General Education Core  
   See page 40 for General Education Core requirements.  
II. Recommended Electives       Credit Hours  
   (1 4–16 credit hours)  
   A. SPAN 191  Beginning Spanish I .................. 4  
   B. SPAN 192  Beginning Spanish II ................ 4  
   C. SPAN 291  Intermediate Spanish I ............. 3  
   D. SPAN 292  Intermediate Spanish II ............ 3  
   E. SPAN 293  Conversational Spanish I .......... 1  
   F. SPAN 294  Conversational Spanish II ........... 1  

SPEECH COMMUNICATION  
A TWO-YEAR ASSOCIATE OF ARTS DEGREE PROGRAM  

60 CREDIT HOURS REQUIRED TO GRADUATE  

ABOUT OUR PROGRAM  
Excellent communication skills are essential in today's society. In school, the workplace, and at home, success depends greatly on our ability to communicate effectively. The Associate of Arts degree in Speech Communication gives students a broad background in communication competencies. Students who enroll in Speech Communication courses will become aware of the impact of communication on their personal and professional lives. They will also improve interpersonal communication skills and strengthen presentational abilities. 

Both the traditional rhetorical approach (oral presentation) and the behavioristic approach (communication theory and skill) are reflected in Speech Communication course offerings. Media-oriented courses are also offered in the Speech Communication program. 

In addition, the CCCC Speech Communication program includes a forensics workshop, which includes participation in speech competitions (scholarships are available for qualified students -- contact the Speech Communication department for eligibility requirements).  

CAREER OPPORTUNITIES  
An Associate of Arts degree in Speech Communication will aid individuals seeking employment in all occupations, especially those that involve a high degree of interaction with the public. Occupations involving marketing research, conference and special events planning, product/service demonstrations, and sales are but a few of the career opportunities well-suited to Speech Communications majors. 

The Associate of Arts degree in Speech Communication provides the academic foundation to successfully complete a bachelor's degree at a four-year institution, and then to pursue a career in fields such as mass media, public relations, law, government, personnel, employee relations and education.
### ASSOCIATE OF ARTS DEGREE REQUIREMENTS: SPEECH COMMUNICATION

#### I. General Education Core

See page 40 for General Education Core requirements.

#### II. Recommended Electives

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#### THEATRE

**A two-year Associate of Arts degree program**

**60 credit hours required to graduate**

**ABOUT OUR PROGRAM**

The theatre program at CCCC strives to introduce students to the aesthetic and analytical elements of theatrical productions. We offer studies in the principles and practices of acting, stagecraft, basic costuming preparation, technical theater production and stage management.

Our labs permit students “hands-on” experiences through performances, as well as shop and crew duties. Our studies include contemporary theories and classical aspects of theatrical studios.

**CAREER OPPORTUNITIES**

- theater education
- performer
- technical assistant
- lighting technician
- costumer
- producer/director

**ASSOCIATE OF ARTS DEGREE REQUIREMENTS: THEATRE**

#### I. General Education Core

See page 40 for General Education Core requirements.
**Course Descriptions**

Common Course Numbers are in parenthesis after course names. For more information on Common Course Numbering see page 127.

**Accounting**

**ACCT 131 Elementary Accounting**
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 (ACCT 2301)**
Principles and applications of measuring and analyzing financial information for business entities. Topics include the accounting cycle, current assets, and the preparation of financial statements. Lab required 3 credit hours.

**ACCT 192 Principles of Accounting II (ACCT 2302)**
Continued study of financial accounting topics in greater depth than in Principles of Accounting. Topics include financial accounting functions and basic theory, current assets and current liabilities, plant assets and long-term liabilities. Prerequisite: ACCT 191. Lab required. 3 credit hours.

**ACCT 193 Managerial Accounting**
Preparation and interpretation of accounting data used in management planning, decision-making and administrative control. Topics include 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 financial accounting functions and basic theory, current assets and current liabilities, plant assets and long-term liabilities. Prerequisite: ACCT 192. Lab required. 3 credit hours.

**ACCT 195 Intermediate Accounting II**
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. Prerequisite: ACCT 194. Lab required. 3 credit hours.

**ACCT 196 Auditing**
Introduction to auditing theory and practice. Topics include introduction to professionalism, the general theory of auditing, audit program applications and reporting responsibilities. Prerequisite: ACCT 195. Lab required. 3 credit hours.

**ACCT 291 Individual Income Taxation**
History and the structure of federal income tax legislation and law as it pertains to individuals. Emphasis on current tax laws, preparation of tax return and/or specific tax problems. Prerequisite: ACCT 191. Lab required. 3 credit hours.

**ACCT 292 Corporate Income Taxation**
History and structure of federal income tax legislation as it pertains to partnerships and corporations. Emphasis on current tax laws, tax return preparation and/or specific tax problems. Prerequisite: ACCT 194, 195 and 291. Lab required. 3 credit hours.

**ACCT 295 Accounting Ethics**
Examination of problems and ethical dilemmas faced by those practicing accounting. Designed to develop the qualities required of a professional accountant, regardless of the organization in which the accountant will be active. Prerequisite: Consent of instructor. 3 credit hours.

**ACCT 700 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.

**Advertising Art**

**(Applied Communication Design)**

**ADV 130 Introduction to Stat Camera Operation**
Introduction to principles, procedures and practices of large format camera operation. Exposure and experience on 6" and 8" cameras. Line art, halftones and architectural applications. Lab required. 1 credit hour.

**ADV 140 Introduction to Computer Graphics**
Introduction to the computer as an art tool. Exposure to the various fields of advertising computer graphics including electronic imaging, electronic publishing, computer illustration, interactive multimedia and photo manipulation. Introduction to basic computer functions, draw, paint, print tools, terminology, technology, keyboard familiarization, mouse use, software function and access. Lab required. 3 credit hours.

**ADV 141 Creative Problem Solving**
Introduction to creative problem solving techniques. Emphasis on concept development, copy writing and innovative and creative thinking. 3 credit hours.

**ADV 142 Introduction to Electronic Imaging**
Introduction to electronic imaging and color separation using the computer as the primary tool. Photo retouch and manipulation, scanned art imaging and computer generated art image processing. Companion course for Digital Photography. Photo and fine arts majors welcome. Prerequisite: ADV 140. Lab required. 3 credit hours.

**ADV 143 Computer Typography**
Introduction to typography using the computer as the main tool. Exploration and definition of type, type design, beginning type manipulation and rendering. Prerequisite: ADV 140. Lab required. 3 credit hours.

**ADV 144 Introduction to Interactive Multimedia Authoring**
Introduction to multimedia, principles, theories, systems and applications. Exposure and experience in all major authoring software, lecture by leading multimedia developers and work on continuing multimedia projects. Prerequisite: ADV 140. Lab required. 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 208 Sketching for Illustration**
Contemporary period and character drawing from live models with props. Emphasis on drawing and analysis of people and objects for accuracy, perspective, composition, analysis of light, shadow and value. Photo reference. Lab required. 3 credit hours.

**ADV 223 Introduction to Art Direction/Video**
Develops student's ability to design commercials. Students are taken step by step through all phases of production and pre-production. Each student designs and produces 15 to 30 second commercial. Computer graphics included where necessary. Prerequisite: ADV 143. Lab required. 3 credit hours.
ADV 231 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: ADV 140 and ADV 288. Lab required. 3 credit hours.

ADV 232 IMAGE PROCESSING
Continuation of Introduction to Electronic Illustration, ADV 142. Use of Macintosh hardware, latest photo-imaging software, video capture and scanning to create electronic images. Output to high-end color printers, film printer and video. Prerequisite: ADV 142. Lab required. 3 credit hours.

ADV 233 ELECTRONIC PUBLISHING FOR GRAPHIC DESIGN
Explores the use of electronic publishing software on Macintosh hardware as a tool in graphic design. Students will also scan and print. Prerequisites: ADV 231, 287. Lab required. 3 credit hours.

ADV 236 2D COMPUTER ANIMATION
Various aspects of two dimensional animation on Macintosh with latest software. Students will develop concepts, storyboard and produce a two dimensional animation with music and soundtrack. Prerequisite: ADV 231. Lab required. 3 credit hours.

ADV 237 3D COMPUTER ANIMATION
Introduction to three dimensional animation using highend Macintosh hardware and latest software. Students will begin to produce a three dimensional animated film concept, storyboard and production. Music and soundtrack will be included. Lab required. 3 credit hours.

ADV 238 INTERACTIVE MULTIMEDIA AUTHORING
Further exploration of multimedia principles with practical application through work on continuing projects. Emphasis on interface design, instructional design issues, storyboard and concept. Macintosh hardware, latest authoring software. Prerequisite: ADV 143 and 144. Lab required. 3 credit hours.

ADV 287 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. Prerequisite: ART 191. Lab required. 3 credit hours.

ADV 288 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.

ADV 289 COMPUTER ILLUSTRATION
Illustration using the computer as the main tool. The primary focus is on 3D software. Concentrated exploration of computer rendering, tools, scanning and printing. Fine arts and photo majors welcome. Prerequisites: ADV 142, ADV 231 and ADV 288. 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 computer-ready art. Current trends will be explored. Creative solutions will be stressed. Prerequisite: ADV 287. 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: ADV 288. Lab required. 3 credit hours.

ADV 294 PROFESSIONAL PRACTICES
Overview of professional practices required both in the work place and as a free-lance artist. Networking, professional organizations, presentation skills and job-seeking techniques will be covered. Prerequisite: ADV 287 or ADV 288. Lab required. 3 credit hours.

ADV 295 AD AGENCY
Advanced students from the rms of production art, illustration and computer graphics 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 ADVANCED COMPUTER ILLUSTRATION
More advanced work in computer illustration, including color. Prerequisites: ADV 289 and ADV 292. Lab required. 3 credit hours.

ADV 701 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.

ANTHROPOLOGY

ANTH 151 CULTURAL ANTHROPOLOGY (ANTH 235)
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

ART 190 ART APPRECIATION (ARTS 1301)
Introduction to the visual arts, emphasizing the understanding and appreciation of art. 3 credit hours.

ART 191 DESIGN I (ARTS 1311)
Introduction to two-dimensional visual organization dealing with basic elements and principles of design. Exploration of black and white, color and 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 (ARTS 1312)
A study of three-dimensional design problems. Prerequisite: ART 191. Lab required. 3 credit hours.

ART 193 DRAWING I (ARTS 1316)
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 fine art. Prerequisite: ART 191, ART 293. Lab required. 3 credit hours.

ART 194 DRAWING II (ARTS 1317)
Continued study of space, form, line, contour, gesture, texture, value and composition in still life, figure, perspective and landscape. Prerequisite: ART 193. Lab required. 3 credit hours.

ART 195 CREATIVE SOLUTIONS IN MIXED MEDIA (ARTS 1370)
An introduction to contemporary solutions in mixed media painting. Prerequisite: ART 291. Lab required. 3 credit hours.

ART 196 DESIGN II COLOR THEORY (ARTS 2311)
Practical application of current color theories used in both fine arts and commercial art. Emphasis is on color perception and color psychology with exercises in transparent and opaque pigments, printing techniques and color photography. Prerequisite: ART 191, 193. Lab required. 3 credit hours.

ART 249 ART FOR ELEMENTARY EDUCATORS (ARTS 1325)
Art for elementary educators. Includes project, in drawing, painting, printing, crafts and sculpture. Lab required. 3 credit hours.

ART 281 SCULPTURE I (ARTS 2326)
A study of three-dimensional form, including basic methods of modeling, construction and simple casting procedures. Prerequisite: ART 192. Lab required. 3 credit hours.
ART 282 Sculpture II (ARTS 2327)
Application of the principles of three-dimensional form with an emphasis on creative expression. Prerequisite: ART 281. Lab required. 3 credit hours.

ART 283 Ceramics I (ARTS 2346)
Introduction to ceramic design, including hand building, potter's wheel and glazing and firing techniques. Lab required. 3 credit hours.

ART 284 Ceramics II (ARTS 2347)
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 (ARTS 2333)
Introduction to the process of intaglio and relief printing. Prerequisite: ART 193. Lab required. 3 credit hours.

ART 286 Printmaking II (ARTS 2334)
Continuation of Printmaking I with an emphasis on creative expression. Prerequisite: ART 285. Lab required. 3 credit hours.

ART 291 Painting I (ARTS 2316)
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 (ARTS 2317)
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 (ARTS 2366)
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 (ARTS 2367)
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 (ARTS 1303)
Survey of art history 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 (ARTS 1304)
Survey of art history 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 (ARTS 2323)
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 (6) hours credit. The second semester of work is more advanced than the previous semester. Prerequisite: ART 194. Lab required. 3 credit hours.

ART 298 Fibers I (ARTS 2336)
Investigates the problems of two and three-dimensional design with emphasis on individual expression and creativity based on loom and off-loom weaving techniques. Basic papermaking and elementary dyeing processes explored. Lab required. 3 credit hours.

ART 299 Fibers II (ARTS 2337)
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. Prerequisite: ART 298. Lab required. 3 credit hours.

BIOLOGY

BIOI 151 Introduction to Biology I (BIOL 1408)
Survey of biology including molecular and cellular biology, genetics and the biology of plants and lower organisms. The cellular and molecular basis of life will be emphasized. Current topics in biology and medicine will be discussed. Students will meet three lecture hours/week, two lab hours/week and one recitation hour/week. Lab and recitation required. 4 credit hours.

BIOI 152 Introduction to Biology II (BIOL 1409)
Continuation of Biology I. The biology of plants and lower animals and humans will be studied, as well as organisms in nature, their ecology, ecosystems, behavior and evolution. Current topics in biology and medicine will be discussed. Students will meet three lecture hours/week, two lab hours/week and one recitation hour/week. Prerequisite: BIOL 151. Lab and recitation required. 4 credit hours.

BIOL 153 Marine Biology (BIOL 1470)
Morphological, physiological and ecological adaptations of marine organisms to their environment. Prerequisite: BIOL 151 or 191, SCUBA certification and consent of instructor. BIOL 152 or BIOL 192 is preferred. Lab required, including week-long field trip to Cozumel, Mexico. 4 credit hours.

BIOL 155 Human Anatomy and Physiology (BIOL 1471)
A one-semester course for non-science majors in the structure and function of the human body. Discussion of the body systems, including neural, endomterial, musculoskeletal, digestive, urinary, reproductive and circulatory, will be accompanied by discussion of diseases of each system. Prerequisite: BIOL 151 or 191. Lab required. 4 credit hours.

BIOL 191 General Biology I (BIOL 1406)
For science majors. Current knowledge in the fundamentals of biology. Will develop concepts in cellular structure and function from the molecular level with a study of genetics and plants and lower organisms. General topics covered include basic biochemistry, metabolism, energetics, cell structure and function, bacteria and lower organisms; plant structure and function. Laboratory includes studies of tissue types, cellular structure and function, physiological chemistry, and plant anatomy and physiology. Lab required. 4 credit hours.

BIOL 192 General Biology II (BIOL 1407)
For science majors. Continuation of the study of biological systems including animal organ systems, immunity, reproduction, development, diversity, inter- and intra-specific behavior of animals, evolution and environment. The cellular and molecular basis of biology is emphasized. Dissections of invertebrates and a mammal are included. Laboratory correlates with lecture topics. Prerequisite: BIOL 191. Lab required. 4 credit hours.

BIOL 264 Human Genetics (BIOL 2470)
A study of the principles of molecular and classical genetics and the function and transmission of hereditary material with emphasis on the human. Medical applications include genetic diseases, genetic counseling and genetics as involved in cancer and other acquired diseases. Prerequisite: BIOL 192. May be taken concurrently with BIOL 191 if BIOL 191 has been completed. Credit will not be given for both BIOL 264 and BIOL 294. Lab required. 4 credit hours.
**BIOL 281 GENERAL BOTANY (BIOL 141)**
The study of structure and function of plant cells, tissues, and organs. An evolutionary survey and life histories of these representative groups: algae, fungi, bryophytes, liverworts, ferns, and seed-producing plants. Plants' reproductive and functional interactions with their environment and with man will be included. Selected laboratory exercises will complement the lecture topics. Prerequisite: BIOL 192. May be taken concurrently with BIOL 192 if BIOL 191 has been completed. Lab required. 4 credit hours.

**BIOL 283 INVERTEBRATE ZOOLOGY (BIOL 2418)**
Classification, anatomy, physiology, ecology and evolutionary relationships of the invertebrate animals. Laboratory will be correlated with animals studied in lecture and will include observation and dissection of invertebrates. Prerequisite: BIOL 192. Lab required. 4 credit hours.

**BIOL 284 VERTEBRATE ZOOLOGY (BIOL 2428)**
Classification, anatomy, physiology, development, ecology and natural history of the vertebrate animals with emphasis on comparative evolution. Prerequisite: BIOL 192. Lab required. 4 credit hours.

**BIOL 291 ANATOMY AND PHYSIOLOGY I (BIOL 2401)**
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 and nervous systems. The molecular aspects of cells and organisms are stressed. Laboratory section includes dissection of a mammal, as well as study of models, slides and charts correlating with lecture topics. Prerequisite: BIOL 191. Lab required. 4 credit hours.

**BIOL 292 ANATOMY AND PHYSIOLOGY II (BIOL 2402)**
Continuation of the study of the structure and function of the mammalian system with emphasis on physiology. Topics include genetics, digestion, nutrition, metabolism, 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 (BIOL 2420)**
Principles of microbiology. Classification, cell structure, metabolism and historical concepts of microorganisms including bacteria, viruses, fungi, protozoa and rickettsia. Infectious diseases and immunology will be emphasized. Practical microbiology will include diagnostic microbiology of 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 291 and BIOL 292. Lab required. 4 credit hours.

**BIOL 294 GENETICS (BIOL 2416)**
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 192. Lab required. 4 credit hours.

**BUSINESS ADMINISTRATION**

**BSAD 121 INTRODUCTION TO BUSINESS (BUSI 1301)**
Survey 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**
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 (BUSI 2301)**
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 (BUSI 1307)**
Personal financial issues are covered. Topics include financial planning, insurance, budgeting, credit, home ownership, savings and tax problem. Lab required. 3 credit hours.

**BSAD 125 SUPERVISORY MANAGEMENT**
Designed to instill a balanced quantitative/qualitative (high-touch) approach to management. 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 222 PERSONNEL MANAGEMENT**
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 225 INTERNATIONAL BUSINESS**
Introduction to international trade. 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 ORGANIZATIONAL BEHAVIOR**
Human problems of administration in modern organizations are examined. The theory and methods of behavioral science as they relate to organizations are included. Lab required. 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. Lab required. 3 credit hours.

**BSAD 232 STRATEGIC MANAGEMENT**
Functions of management are examined and expanded in the formation of strategic goals, objectives and policies to enhance organizational effectiveness. Emphasis will be on organizational design and redesign, socio-technical and systems integration, forecasting techniques and leadership. Prerequisite: BSAD 122. 3 credit hours.

**BSAD 297 SELECTED TOPICS IN PERSONNEL MANAGEMENT**
An in-depth study of selected topics on current issues in personnel management. Course may be repeated for credit as topics vary. 3 credit hours.

**BSAD 298 SELECTED TOPICS IN BUSINESS PRINCIPLES (BUSI 2371)**
Provides an overall picture of business operations, develops a business vocabulary and directs the thinking of each student to the field of business best suited to his/her interest and ability. Subject matter includes an analysis of the specialized fields within the business organization and of the role of business in modern society. Topics may vary from semester to semester. Course may be repeated for credit as topics change. 3 credit hours.

**BSAD 700 COOPERATIVE EDUCATION I**
A comprehensive treatment of career-related activities encountered in the student's area of specialization. Under supervision of the college and employer, the student combines classroom learning with work experience. Prerequisite: Consent of Instructor. 3 credit hours.
BSAD 703 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.

CHEMISTRY
CHEM 151 INTRODUCTION TO CHEMISTRY (CHEM 1405)
A laboratory, lecture and recitation program designed for non-science majors. Studies 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. Prerequisite: high school algebra or equivalent. Lab and recitation required. 4 credit hours.

CHEM 153 INTRODUCTION TO CHEMISTRY II (CHEM 1407)
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 (CHEM 1411)
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 (CHEM 1412)
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 193 BIOCHEMISTRY (CHEM 1170)
Biochemistry is a seminar course for science majors exploring topics of catabolism and anabolism with excursion into areas of current biochemical investigations. Prerequisite: BIOL 191 and CHEM 191. Lab required. 1 credit hour.

CHEM 291 ORGANIC CHEMISTRY I (CHEM 2423)
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 (CHEM 2425)
A continuation of Chemistry 291 that includes methods of structural analysis, advanced synthesis and reactions, biochemistry and organometallic topics. Laboratory experiments emphasize techniques in synthesis, purification, and analyses, and reinforce lecture material. Prerequisite: CHEM 291. Lab and recitation required. 4 credit hours.

CHILD DEVELOPMENT
CHDV 152 EARLY CHILDHOOD DEVELOPMENT (3-5 YRS.)
Comprehensive study of growth and development from three to five years of age. Emphasis on cognitive, physical, emotional and social development. Lab required. 3 credit hours.

CHDV 153 EARLY CHILDHOOD PROGRAMS AND SERVICES
Study of appropriate learning experiences for young children in a variety of child-care environments. Emphasis 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. Students earn first aid and CPR certificates during this course. Lab required. 3 credit hours.

CHDV 155 MATERIAL AND ACTIVITIES DEVELOPMENT
Language Arts, Pre-reading, Computers and Math: Techniques and materials for the progress of each child in language arts, reading and math concepts for appropriate stages of their cognitive development. Lab required. 4 credit hours.

CHDV 156 MATERIAL AND ACTIVITIES DEVELOPMENT II
Nature, World of People and the Arts: The interrelationships among science, social science and creativity in the rust is studied as it applies to the total development of the young child. Activities, content, methods and materials are explored. Lab required. 4 credit hours.

CHDV 157 PRACTICUM A
Application of learning experiences through participation as an assistant teacher or assistant administrator in the Child Development Laboratory School. Prerequisite or co-requisite: CHDV 155 or CHDV 156 for Early Childhood Educator majors; CHDV 253 or CHDV 254 for Early Childhood Administration majors. Permission of instructor required. Lab required. 3 credit hours.

CHDV 158 PRACTICUM B
Advanced application of learning experiences involving increased responsibility for teaching or administration in the Child Development Laboratory School or in an approved early childhood facility such as a registered family day home, a licensed child care center or an accredited school. Prerequisite: CHDV 157. Permission of instructor required. 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. Prerequisite: CHDV 151. Lab required. 3 credit hours.

CHDV 160 CHILD DEVELOPMENT (5-12 YRS.)
Comprehensive study of growth and development from 5 through 12 years of age. Emphasis on cognitive, language, emotional and social development. Lab required. 3 credit hours.

CHDV 161 EARLY CHILDHOOD FUNDAMENTALS
Introduction to early childhood education, with an emphasis on the development of observation skills. Content includes methods for observation and recording of data, interpreting information and planning for children based on observations. The importance of children's play is emphasized. Lab required. 3 credit hours.

CHDV 251 CHILD GUIDANCE
Study of effective methods of guiding young children with an emphasis on developing a positive self-concept, recognizing individual differences, varied family situations and various crisis situations. Includes observations and interpretations of case studies of young children. Lab required. Prerequisite: CHDV 151, CHDV 152, CHDV 161 or permission of instructor. 3 credit hours.

CHDV 252 CHILD ABUSE PREVENTION
Focuses on the causes and symptoms of abusive behavior. Emphasis on developing skills and competencies for working with the abused child and families to help alleviate abusive experiences. Lab required. 3 credit hours.
CHDV 253 ADMINISTRATION OF EARLY CHILDHOOD PROGRAMS
Business administration procedures for early childhood programs are studied. Topics include food, health, personnel practices, budgeting, record keeping, legal procedures and use of the computer. Lab required. 3 credit hours.

CHDV 254 ORGANIZATION AND MANAGEMENT OF EARLY CHILDHOOD PROGRAMS
Organization and management procedures are studied. Topics include philosophy of early childhood education, organizational goals, staffing policies and training plans, facility planning and design, program management and evaluation. Lab required. 3 credit hours.

CHDV 255 INTERNSHIP
Supervised teaching or administrative experience in an approved program or service agency for young children and their families. Prerequisite: permission of instructor. 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: permission of instructor. 3 credit hours.

CHDV 257 PARENTS AND THE CAREGIVER
Explores relationships between care givers and parents of young children. Focuses on parental involvement, effective relationship building techniques and communication skills. Prerequisite: CHDV 151 or CHDV 152 and CHDV 251 or permission of instructor. Lab required. 3 credit hours.

CHDV 257 SELECTED TOPICS IN CHILD DEVELOPMENT
Current topics in the field of Child Development will be studied. May be repeated for credit as topics vary. Lab required. 1 credit hour.

COMMUNICATION

COMM 150 SURVEY OF RECOR DING TECHNIQUES I (COMM 2371)
Introduction to the concepts and techniques of audio recording including operation of recording equipment, session procedures, simultaneous recording and multi-track recording. Lab required. 3 credit hours.

COMM 151 SURVEY OF RECOR DING TECHNIQUES II (COMM 2324)
Continuation of COMM 150, studying advanced recording studio techniques and practical application of basic skills. Prerequisite COMM 150. Lab required. 3 credit hours.

COMPUTER INFORMATION SYSTEMS

CIS 121 COMPUTER GRAPHICS SYSTEMS
Basic computer systems used in drafting and design applications. Hardware and software operations including booting, displays, files, commands, defaults, input-output, disk, printers, plotters, precision, utilities and data bases. 3 credit hours.

CIS 128 MICROCOMPUTER CONCEPTS
Designed to develop PC skills in DOS (Disk Operating System) from simple commands through creation of BATCH files. Instruction and practice using an integrated software package (database, spreadsheet and word processing) are included. Lab required. 3 credit hours.

CIS 130 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; or CIS 128; or consent of instructor. Lab required. 3 credit hours.

CIS 140 RPG PROGRAMMING
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. Lab required. 3 credit hours.

CIS 200 COBOL I
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 130. Lab required. 3 credit hours.

CIS 205 COBOL II
Continuation of CIS 200 with emphasis placed on advanced techniques, disk and file access, storage, sequential and direct access file systems. Concepts of stacks, queues, the linked list, and data collision and resolution techniques will be applied to data files. Prerequisite: One programming language. Lab required. 3 credit hours.

CIS 220 INTEGRATED SPREADSHEET APPLICATIONS
Introduction to solving business problems using LOTUS 123 by Lotus Dev. Corp. Student will be required to produce spreadsheet, database and graphic documents. Prerequisite: CIS 128 or CPSC 150, or consent of instructor. Lab required. 3 credit hours.

CIS 221 SYSTEMS ANALYSIS AND DESIGN
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. Prerequisite: One programming language. Lab required. 3 credit hours.

CIS 224 INFORMATION SYSTEMS MANAGEMENT
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: One programming language. Lab required. 3 credit hours.

CIS 225 DESKTOP PUBLISHING
Use of 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 223. Lab required. 3 credit hours.

CIS 230 DATABASE APPLICATIONS
Concepts and techniques for solving business problems using dBase IV by Boulland Corp. Emphasis is on database design, custom reports, file management and application creation. Prerequisite: CIS 125 or CPSC 150 or consent of instructor. Lab required. 3 credit hours.

CIS 235 NETWORKING AND TELECOMMUNICATIONS
This course reviews data, text, graphics and voice communications technology and their applications. Included is vocabulary, configuration of local networks, modems, files and standards. An overview of protocols is given. Prerequisite: CIS 128 or CPSC 150 or consent of instructor. Lab required. 3 credit hours.
CIS 245 COMPUTER OPERATING SYSTEMS
An introduction to operating systems theory and concepts. Topics include computer hardware, software and their interaction, single-user vs. multi-user systems. MS-DOS, UNIX and JCL. Prerequisite: One programming language, CPSC 150 or CIS 128. Lab required. 3 credit hours.

CIS 297 SPECIAL TOPICS IN COMPUTER INFORMATION SYSTEMS I
Current developments in the rapidly changing field of computer information systems are studied. May be repeated when topics vary. Prerequisite: Will vary based on topics covered and will be annotated in each semester’s class schedule. Lab required 3 credit hours.

CIS 298 SPECIAL TOPICS IN COMPUTER INFORMATION SYSTEMS II
Current developments in the rapidly changing field of Computer information systems are studied. May be repeated when topics vary. Prerequisite: Will vary based on topics covered and will be annotated in each semester’s class schedule. Lab required 3 credit hours.

CIS 700 COOPERATIVE EDUCATION I
This course is designed to help the student integrate classroom knowledge with the 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 1 hour weekly seminar. 3 credit hours.

CIS 705 COOPERATIVE EDUCATION II
Continuation of supervised on-the-job training related to students field of study. Learning objectives are reviewed and new ones established; continued participation in seminars. Prerequisite: CIS 700. 3 credit hours.

COMPUTER SCIENCE

CPSC 123 INTRODUCTION TO SYSTEM SOFTWARE ARCHITECTURE
Introduction to system level operations, booting, compilers, translators, linkers, loaders, system control and runtime software. Laboratory examples assigned to reinforce principles. Prerequisite: CPSC 150. Lab required. 3 credit hours.

CPSC 130 LARGE SCALE OPERATING SYSTEMS
A study of UNIX and VMS operating systems concepts with hands-on laboratory exercises. Topics include I/O techniques, buffering, spooling, device drivers, resource allocation, memory, file management, deadlock avoidance and job scheduling. Prerequisite: In-depth knowledge of one programming language. 3 credit hours.

CPSC 135 C PROGRAMMING (COSC 1320)
An introduction to fundamental high-level programming using the C programming language. Prerequisite: CPSC 150 or knowledge of one programming language. Lab required. 3 credit hours.

CPSC 150 INTRODUCTION TO COMPUTERS (COSC 1306)
Study of basic hardware components and major software applications. Topics emphasized in labs include introduction to DOS commands, WordPerfect, dBASE III+, Lotus 1-2-3 and elementary programming using BASIC language. Lab required. 3 credit hours.

CPSC 190 PROGRAMMING CONCEPTS I (COSC 1318)
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. Co-requisite: MATH 181, CPSC 150 or consent of instructor. Lab required. 3 credit hours.

CPSC 191 PROGRAMMING CONCEPTS II (COSC 2318)
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 201 PROGRAMMING IN WINDOWS
Programming in a window integrated development environment using C and Pascal. Topics also include coding for dialogs, buttons, list boxes, edit fields, icons and other resources. Prerequisite: CPSC 135 or 190. 3 credit hours.

CPSC 210 ASSEMBLY LANGUAGE (COSC 2325)
Study of the architecture of the computer through the use of assembly language programming. Includes study of registers, instruction sets, addressing techniques, machine instruction traces, table searching/sorting, file I/O, program linking and macros. Prerequisite: CPSC 135 or 191. Lab required. 3 credit hours.

CPSC 213 DATA STRUCTURES WITH C
Using C language, an in-depth look at records, variant records, enumerated data types, pointers, records, list processing, queues, stacks, abstract data types, searching, sorting, linked lists, graphs, traversals and recursions. Prerequisite: CPSC 135. 3 credit hours.

CPSC 221 SOFTWARE ENGINEERING
Study of software design, implementation, 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. Lab required. 3 credit hours.

CPSC 223 COMPUTER NETWORKS
Use of distributed networks containing mini and micro computers with an introduction to wide area networks. Hands-on experience in local area networks, network architecture, protocols and software security using a network software package, such as NOVELL. Lab required. 3 credit hours.

CPSC 224 SOFTWARE 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: CPSC 221. Lab required. 3 credit hours.

CPSC 225 ADA PROGRAMMING
Syntax and semantics of ADA language, packages, I/O, encapsulation, tasking, blocks, exceptions, private and generic types. Prerequisite: CPSC 191. Lab required. 3 credit hours.

CPSC 230 SYSTEMS PROGRAMMING
Introduction to systems level operations booting compilers, translators, linkers, loaders, system control and runtime software. Laboratory examples assigned to reinforce principles. Prerequisite: CPSC 290. 3 credit hours.

CPSC 232 ADVANCED SOFTWARE ENGINEERING
Advanced study of large program design and documentation, group problems, software maintenance and reliability. Prerequisite: CPSC 221. Lab required. 3 credit hours.

CPSC 233 ADVANCED ASSEMBLY LANGUAGE PROGRAMMING
Program design and practice with assembly languages, macro definitions, configuration programs, assembly I/O, floating point operations. Prerequisite: CPSC 290. Lab required. 3 credit hours.

CPSC 235 LISP PROGRAMMING
Syntax and semantics of LISP programming language, style and recursion, tail recursion, algorithm development, list processing techniques. Prerequisite: CPSC 290. Lab required. 3 credit hours.

CPSC 236 INTRODUCTION 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: CPSC 235. Lab required. 3 credit hours.

CPSC 292 SCIENTIFIC PROGRAMMING (COSC 1317)
Introduction to numerical techniques with applications in science and engineering using FORTRAN. Emphasis on program design and documentation. Topics include subscripting, file processing and subroutines. Prerequisite: MATH 182. Lab required. 3 credit hours.

CPSC 293 PL/I PROGRAMMING (COSC 2333)
Introduction to PL/I programming with emphasis on the structured approach to program design using both mathematical and business applications. Prerequisite: CPSC 191. Co-requisite: MATH 181; CPSC 150; or consent of instructor. Lab required. 3 credit hours.
CPSC 294 C++
A study of the principles underlying object oriented programming and design using C++. Prerequisite: CPSC 135 or consent of instructor. Lab required 3 credit hours.

CPSC 297 Advanced Topics in Computer Science
Selected topics in computer science and software development to address current issues. Topics may vary each semester. Course may be repeated for credit as topics vary. 3 credit hours.

CPSC 298 Special Topics II
Selected topics in computer science and software development to address current issues. Topics may vary each semester. Course may be repeated for credit. 1 credit hour.

CPSC 700 Cooperative Education I
Supervised on-the-job training related to Computer Science and Software Development. The student, the student's supervisor and program coordinator will establish five specific goals for the student to accomplish. Approval by instructor. 3 credit hours.

CRIMINAL JUSTICE
CRJ 151 Crime in America (CRJ 1307)
A survey of the nature, location and impact of crime in America. Includes historical foundations of crime, theoretical explanations of criminality and delinquency, the recording and measurement of crime, descriptions of criminal careers and an analysis of public policies concerning crime control. 3 credit hours.

CRJ 152 Introduction to Criminal Justice (CRJ 1301)
A multidisciplinary overview and analysis of the major agencies, personnel and decision-making points which comprise the criminal justice system. Included are a survey of problems and issues confronting legislatures, police, courts, corrections and the community as they respond to crime in a free society. Legal precedents guiding the decisions of criminal justice agents are also discussed. 3 credit hours.

CRJ 153 Fundamentals of Criminal Law (CRJ 1310)
Study of the nature of criminal law; historical and philosophical development of law in society; major definitions and Concepts; classifications of crime; elements of crimes and penalties using the Texas statutes as illustrations; criminal responsibility. 3 credit hours.

CRJ 154 The Courts and Criminal Procedure (CRJ 1306)
Study of procedural regulations which guide the processing of criminal cases through the criminal justice system with emphasis on the Texas Code of Criminal Procedure and rules of evidence. Included is a discussion of due process rights of the criminal defendant from arrest through confinement as well as issues related to the administration of capital punishment. 3 credit hours.

DRAFTING AND COMPUTER AIDED DESIGN
CAD 151 Technical Graphics I
Use of instruments, applied geometry, engineering lettering, orthographic projections, dimensioning, pictorial drawing and sketching, sectional views and working drawings. Lab required. 3 credit hours.

CAD 152 Technical Graphics II
A continuation of Technical Graphics I. 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. Prerequisite: CAD 151. Lab required. 3 credit hours.

CAD 153 Computer Aided Drawing
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: CIS 121. Lab required. 3 credit hours.

CAD 220 Technical Illustration
Applications of computer graphics in the field of technical illustration. 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 3D modeling will be introduced. Prerequisite: CIS 121 or CAD 153. Lab required. 3 credit hours.

CAD 221 Computer Aided Design
An advanced course in design applications. Students will complete actual design projects in the architectural, mechanical, civil, electronics, graphics or manufacturing fields of study. Prerequisite: CAD 153. 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-dimensional design, specifically mechanical. Menu and library construction will be practiced while using the interactive graphic system. Prerequisite: CAD 153. Lab required. 3 credit hours.

CAD 231 Electronic PCB Drawing
Focuses on drawings used in the electronics industry. Topics include block and logic diagrams, schematic diagrams, interconnecting wire diagrams, tape printed circuit boards, integrated circuits, component packaging and current practices. Lab required 3 credit hours.

CAD 232 Descriptive Geometry
Study of points, lines and planes in space with application of various technologies. Prerequisite: CAD 152. Lab required. 3 credit hours.

CAD 235 Manufacturing Processes
Study of the characteristics of industrial materials and processes employed in their conversion. The areas covered are sheet metal, machined parts and castings. Prerequisite: CAD 151. Lab required. 3 credit hours.

CAD 236 NC Programming
NC Programming will provide students with basic conceptual knowledge about the fundamentals of NC Programming and basic understanding of various NC Programming languages. Prerequisite: CAD 235. Lab required. 3 credit hours.

CAD 237 Computer Integrated Manufacturing
Systematic introduction of the aspects of Computer Integrated Manufacturing technology. This course includes software examples, practical case studies and simulation techniques. Prerequisite: CAD 235. Lab required. 3 credit hours.

CAD 240 Printed Circuit Design
This course develops skills in the design of double-sided and multi-layer printed circuit boards. Students design boards using schematic, parts lists and manufacturing specifications. Some boards are designed for manual parts insertion and taped. 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
Continuation of CAD 240. Students will be designing power supply boards, shielding and denser PCB designs. Multi-layer board design concepts will be introduced. Prerequisite: CAD 240, CAD 153. Lab required. 3 credit hours.

CAD 255 Applications in PCB Design
Advanced topics in PCB technology to include surface mount and microwave circuit design together with new advancements in technology. Prerequisite: CAD 243. Lab required. 3 credit hours.

CAD 700 Cooperative Education
A course designed to integrate on-campus classroom study with hands-on work experience. The student, the student’s supervisor and the instructor coordinator will establish five specific goals for the student to accomplish. Also requires one hour per week of lecture. Approval by instructor. 4 credit hours.
CAD 705 Cooperative Education II
A course designed to integrate on-campus classroom study with hands-on work experience. The student, the student’s supervisor and the instructor coordinator will establish five specific goals for the student to accomplish. Also requires one hour per week of lecture. Approval by instructor. Prerequisite: CAD 700.4 credit hours.

CAD 710 Cooperative Education III
A course designed to integrate on-campus, classroom study with hands-on work experience. The student, his student’s supervisor, and the instructor coordinator will establish five specific goals for the student to accomplish. Also requires one hour per week of lecture. Approval by instructor. Prerequisite: CAD 705.4 credit hours.

Eating Disorders
EDCC 221 A Survey of Eating Disorders
Studies the history, dynamics, prevalence, symptoms and treatment approaches to eating disorders. Examines biological, psychoanalytic, behavioral, cognitive and other theoretical perspectives. 3 credit hours.

EDCC 222 Treatment Modalities of Eating Disorders
An in-depth study of the dominant approaches to treating eating disorders including diagnosis, assessment, various forms of psychotherapeutic as well as other interventions employed, and clinical issues encountered in treatment. Prerequisite: EDCC 221. 3 credit hours.

EDCC 223 Medical Aspects of Eating Disorders
Analyzes the physiology of obesity, anorexia nervosa and bulimia nervosa, focusing on predisposition, medical complications and differential diagnosis. Explores medical nutritional and dental treatment approaches employed in conjunction with psychological treatment. Prerequisite: EDCC 221. 3 credit hours.

EDCC 224 Individual Counseling
Presents an introduction to interviewing, history-taking, can-giving, listening, intervention and interpretation skills. Includes experience under supervision. Prerequisite: PSYC 151. 3 credit hours.

EDCC 225 Group Processes
Introduces the patterns and dynamics of small group interaction, communication styles, impact of group processes on the individual, curative factors of group therapy and effective approaches to facilitation of groups. Includes experience under supervision. Prerequisite: PSYC 151. 3 credit hours.

EDCC 226 Practicum
Helps the student integrate classroom knowledge with work experience. In-depth observation and participation experiences under supervision will be conducted at appropriate treatment facilities and hospitals. Prerequisite: EDCC 222 and permission of instructor. Requires 20 hours per week of field work. 3 credit hours.

Economics
ECON 121 Introduction to Economics (ECON 1301)
Study of economics of current issues including antibust, 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—Macro (ECON 2301)
Principles of macroeconomics. 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—Micro (ECON 2302)
Principles of microeconomics. Topics include theory of demand, supply and price, income distribution, theory of the firm, international economics and contemporary economic problems. 3 credit hours.

Electronic Technology
ELT 110 Electronic Fundamentals
Introductory course recommended for non-electronics majors in areas such as manufacturing, marketing and sales. The course provides the student with a knowledge of vocabulary, definitions, component identification and applications for electrical/electronics systems. Lab required. 3 credit hours.

ELT 111 Basic Electronics I
Overview of terminology, concepts, devices and basic laws of direct current. Historical perspective on the development of static 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 student's knowledge of circuit construction to develop a logical troubleshooting framework. Lab required. 4 credit hours.

ELT 122 Basic Electronics II
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: EET 111 or equivalent course. Lab required. 4 credit hours.

ELT 133 Electronic Fabrication
A basic course in electronic assembly. Topics include component identification, schematic diagrams, soldering principles, wire preparation, harness assembly, terminal connections, inspection and quality control. Lab required. 3 credit hours.

ELT 144 Solid State Devices
Survey of solid state devices and their associated circuitry. Presents the fundamentals of common electronic circuits which contain integrated circuits and elements of solid state devices from the principle of the PN junction through the function of integrated circuits. Prerequisite: ELT 111. Lab required. 4 credit hours.

ELT 155 Basic Digital
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. Lab required. 3 credit hours.

ELT 207 Fundamentals of Electronic Communications
Overview of the systems and circuits involved in electronic communication. Topics include: radio, television, satellite, microwave, fiber optics and lasers in terms of waveform analysis to include pulse characteristics. Laboratory equipment will be utilized in electronic circuit fault isolation and measurement. Lab required. 3 credit hours.

ELT 208 Active Devices
Semiconductors (active devices) include composition, parametered, linear and non-linear characteristics, in circuit action, amplifiers, rectifiers and switching. Prerequisite: ELT 114 or concurrent enrollment in ELT 114. Lab required. 4 credit hours.

ELT 209 Instrumentation and Telemetry
Operation and use of meters, counters, oscilloscopes, signal generators and test sets which are utilized in electronic circuit fault isolation and measurement. Lab required. Prerequisite: ELT 112. 3 credit hours.

ELT 210 Digital Control Applications
Digital principles as applied to microcomputer systems. Logic design, computer structure and organization, number systems conversion, busing and interfacing. Corequisite: ELT 135. Lab required. 3 credit hours.

ELT 211 Power Supply Systems
Theory and operation of linear and switching power supplies. Topics covered will be: waveform analysis to include pulse characteristics and pulse waveform measurements, full-wave rectification, filtering and regulation. Prerequisite: ELT 208. Lab required. 3 credit hours.
**ELT 212 APPLIED ELECTRONIC CIRCUITS**

Electronics circuit applications with considerations in the use of high speed FDM, high speed switching, coupling and decoupling circuits, transmission modes, noise source and types. Prerequisite: ELT 114. Lab required. 4 credit hours.

**ELT 213 COMPUTER ARCHITECTURE**

Tri-state output circuits, added detail to flip-flops and integrated circuitry, magnetic bubble storage, and coupled devices, semiconductor memories. A micro-programmed version of BLUE will be discussed to illustrate this important design tool. Also brief discussions of STARAN, ILU / ACTV and the Hypercube machines as examples of array processors. Prerequisite: ELT 113. Lab required. 4 credit hours.

**ELT 214 APPLIED 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 project, is emphasized. Lab required. 4 credit hours.

**EJ 215 MICROCOMPUTER SYSTEMS**

Microcomputer interfacing and the use of programmable peripherals 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. Lab required. 3 credit hours.

**EJ 216 OPTOELECTRONICS**

A comprehensive course on the theory and application of optical electronic devices, circuits and fiber optics as they apply to industrial control, data transmission and telecommunications. Prerequisite: ELT 112. Lab required. 4 credit hours.

**EJ 700 COOPERATIVE EDUCATION I**

A course designed to integrate on campus classroom study with off campus work experience. The student, the student's supervisor and the instructor coordinator will establish specific goals for the student to accomplish. Also requires one hour per week of lecture. 4 credit hours.

**EJ 705 COOPERATIVE EDUCATION II**

A course designed to integrate on campus classroom study with off campus work experience. The student, the student's supervisor and the instructor coordinator will establish specific goals for the student to accomplish. Also requires one hour per week of lecture. Prerequisite: ELT 700. 4 credit hours.

**ELECTRONICS ENGINEERING TECHNOLOGY**

**EET 150 AC/DC FUNDAMENTALS**

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. 4 credit hours.

**EET 151 CIRCUIT ANALYSIS I**

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, Thévenin equivalent, Norton equivalent and the Millman equivalent theorems are utilized. This course is an applied mathematics course and includes Cramer’s rule. Prerequisite: MATH 181. Lab required 4 credit hours.

**EET 152 CIRCUIT ANALYSIS II**

Continuation of Circuit Analysis I. The information from the first semester 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 notation and application of fundamental laws and theorems for network analysis. Prerequisite: EET 151. Lab required. 4 credit hours.

**EET 153 DIGITAL I.C. ANALYSIS**

In-depth course in digital circuit analysis, theory, design and troubleshooting. Topics include: numbering systems and codes, logic elements, synchronous sequential logic, I-C architecture, chip survey applications, design of memory systems, A/D and D/A converters and survey of peripherals. Lab required. 4 credit hours.

**EET 154 FUNDAMENTALS OF COMPUTERS**

Study of microcomputers; how they operate, how they are programmed and how they relate to their equipment. Topics include: memories, microprocessor architecture, input/output, operations, bus operations, control, execution cycles and bootstrap procedures. Prerequisite: EET 153. Lab required. 4 credit hours.

**EET 250 CIRCUIT ANALYSIS III**

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: EET 152. Lab required. 4 credit hours.

**EET 251 COMPUTER INTERFACING**

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: EET 154. Lab required. 3 credit hours.

**EET 252 COMPUTER MAINTENANCE**

Emphasis 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 type of factory supplied and technician written diagnostic programs to identify and isolate a faulty device or subsystem. Lab required. 4 credit hours.

**EET 253 MICROWAVE FUNDAMENTALS**

Introduction to microwave theory and applications, transmitter and receiver. Prerequisite: EET 250. Lab required. 3 credit hours.

**EET 254 TELECOMMUNICATIONS**

Topics include: circuit and system application necessary to implement signals protocols, conversion systems, formats, loop starts, E & M, D4 (duples) 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: EET 250. Lab required. 4 credit hours.

**EET 700 COOPERATIVE EDUCATION I**

A course designed to integrate on campus classroom study with off campus work experience. The student, the student's supervisor and the instructor coordinator will establish five specific goals for the student to accomplish. Also requires one hour per week of lecture. 4 credit hours.

**EET 705 COOPERATIVE EDUCATION II**

A course designed to integrate on campus classroom study with off campus work experience. The student, the student's supervisor and the instructor coordinator will establish five specific goals for the student to accomplish. Also requires one hour per week of lecture. Prerequisite: EET 700. 4 credit hours.
EMTP 121 Introduction to Emergency Care

Overview of emergency medical care systems, including historical, state-of-the-art and future perspectives. Legal and ethical issues and responsibilities of emergency care providers 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. Includes classroom, clinical and ambulance training. Topics include anatomy and physiology, extraction and management of injured patients, cardiopulmonary resuscitation (CPR), bleeding control and pneumatic anti-shock garments (MAS). 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 on 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 IV are covered. Prerequisite: EMTP CERTIFICATE. Lab and clinical required. 5 credit hours.

EMTP 221 Paramedic Procedures I

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 V are covered in this course including general pharmacology and the central nervous system. Prerequisite: EMTP CERTIFICATE. Lab and clinical required. 8 credit hours.

EMTP 225 Pharmacology

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: EMTP 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, communications, insurance, equipment purchasing and maintenance, scheduling and training. Prerequisite: EMTP CERTIFICATION. 3 credit hours.

EMTP 231 Paramedic Procedures II

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, VII, IX, X, XII, XIV, XV and XVI 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: EMTP CERTIFICATION. Lab and clinical required. 7 credit hours.

EMTP 296 Seminar: Paramedic Refresher

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.

ENGINEERING

ENGR 151 Engineering Graphics (ENGR 1304)

Use of instruments, applied geometry, engineering lettering, orthographic projections, dimensioning, pictorial drawing and sketching, sectional views and working drawings. Lab required. 3 credit hours.

ENGR 191 Engineering Mechanics I (ENGR 2301)

Vectors, tensors, foundations of mechanics. Motion of particles including moments, 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 (ENGR 2302)

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 (ENGR 2332)

Simple structural elements are studied. Emphasis on forces, deformation and material properties. The concepts of stress, strain and elastic properties are presented. Behavior phenomena such as fracture, fatigue and creep are introduced. Prerequisite: ENGR 191.3 credit hours.

ENGR 292 Electrical Circuit Analysis (ENGR 2405)

Electrical science introduced. Includes fundamental electrical systems and signals. Basic concepts of electricity and magnetism with mathematical representation and computation are also examined. Prerequisite: MATH 203 or concurrent enrollment in MATH 208; EET 150 or instructors consent. Lab required. 4 credit hours.

ENGLISH

ENGL 040 Developmental Writing I

A skills improvement course designed to help the student improve basic writing skills necessary for ENGL 151. Focus is on paragraph and short essay writing. Basic grammar, punctuation and sentence construction are 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 competency necessary for ENGL 151. 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 are studied as needed. This course may not be used to satisfy the requirements of an associate degree. Lab required. 3 credit hours.

ENGL 050 Developmental Grammar I

A skills improvement course designed to help the student strengthen the sentence for clearer, more emphatic, more concise expression of thought. Focus is on all facets of standard written English—correct grammar, punctuation and usage. This course will teach the student to recognize and correct common errors in sentence structure and may be taken concurrently with any English course. This course may not be used to satisfy the requirements for an associate degree. Lab required. 3 credit hours.

ENGL 151 Composition/Rhetoric I (ENGL 1301)

A beginning freshman course in writing. Development of paragraphs and the whole composition, study of model essays, extensive theme writing, individual conferences and departmental final exam. Assessment prior to enrollment required. Lab required. 3 credit hours.
ENGL 152 Composition/Rhetoric II (ENGL 1302)
Continued development of skills acquired in English 151, and development of skills in argumentation. Analysis and interpretation of various types of argumentation and identification of fallacies. Extensive reading, outlining and summarizing of essays. Extensive writing, study of research methods and materials, preparation of research paper and individual conferences. Prerequisite: ENGL 151. Lab required. 3 credit hours.

ENGL 241 Creative Writing (ENGL 2307)
Practical experience in the techniques of imaginative writing. May include fiction, non-fiction, poetry or drama. This course does not satisfy CCCC requirements for a fine arts literature course. Prerequisite: ENGL 152. 3 credit hours.

ENGL 251 Forms of Literature I (ENGL 2339)
A study of short stories, novels and non-fiction. Analysis 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 (ENGL 2340)
A study of poetry and drama, and a study of modern and contemporary drama and film, and the elements and techniques of poetry. Prerequisite: ENGL 152. 3 credit hours.

ENGL 253 British Literature I (ENGL 2322)
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 (ENGL 2323)
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 (ENGL 2327)
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 (ENGL 2328)
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 (ENGL 2332)
Introduces the student to a multiplicity of literary histories beginning with the classical and medieval periods through the 16th century. The students will read representative selections, analyze and discuss philosophies, societal mores, social milieu and social concern. Prerequisite: ENGL 152. 3 credit hours.

ENGL 258 World Literature II (ENGL 2333)
Introduces the student to a multiplicity of literary histories beginning with the 17th century through the 20th century. The students will read representative selections, analyze and discuss philosophies, societal mores, social milieu and social concern. Prerequisite: ENGL 152. 3 credit hours.

ENGL 291 Technical Writing (ENGL 2311)
Introduction to technical writing and communication including preparation of reports, proposals, technical papers, abstracts and summaries of specific technical interest to the student. Prerequisite: ENGL 152. Note: Students in certain technical programs may be admitted to this course with a prerequisite of ENG 131 and consent of English coordinator and dean. No lab required. 3 credit hours.

ENGLISH AS A SECOND LANGUAGE

ESLC 061 ESL Listening-Conversation
This course is designed to develop the non-native speaker's competencies in English. The purpose of the course is to prepare students to function in an English speaking society. (This course may not be used to satisfy the requirements for an associate degree.) Prerequisite: Score of 43-52 on the assessment. Lab required. 3 credit hours.

ESLC 062 ESL Listening-Conversation
This course is a continuation of ESLC 061 and is designed to develop the non-native speaker's competencies in English. Its purpose is to prepare students to function in an English speaking society. (This course may not be used to satisfy the requirements for an associate degree.) Prerequisite: Score of 53-65 on the assessment. Lab required. 3 credit hours.

ESLR 061 ESL Reading
This course is designed to develop fundamental reading skills for non-native speakers. The purpose of the course is to prepare students to read and comprehend the English language. (This course may not be used to satisfy the requirements for an associate degree.) Prerequisite: Score of 43-52 on the assessment. Lab required. 3 credit hours.

ESLR 062 ESL Reading
This course is a continuation of ESLR 061 and is designed to develop reading competencies for the non-native speaker. (This course may not be used to satisfy the requirements for an associate degree.) Prerequisite: Score of 53-65 on the assessment. Lab required. 3 credit hours.

ESLW 061 ESL Writing
This course is designed to develop the non-native speaker's competencies in writing in the English language. The purpose of this course is to prepare students to communicate through written words. Spelling, punctuation, usage and sentence structure will be stressed. (This course may not be used to satisfy the requirements for an associate degree.) Prerequisite: Score of 36-42 on the assessment. Lab required. 3 credit hours.

ESLW 062 ESL Writing
This course is a continuation of ESLW 061 and is designed to develop competencies in writing in the English language. The purpose is to prepare students to communicate through written words. Spelling, punctuation, usage and sentence structure will be stressed. (This course may not be used to satisfy the requirements for an associate degree.) Prerequisite: Score of 43-52 on the assessment. Lab required. 3 credit hours.
**Fire Science**

**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**
Study of chemical characteristics and behavior of various materials that burn or react violently related to storage, transportation, handling of 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 135 Firefighter Certification I**
First in a series of courses preparing the student for certification as a Basic Firefighter by the Texas Commission on Fire Protection Personnel Standards and Education. An introduction to fire department organization, fire apparatus, fire science, firefighter safety, fire alarm and communications, report writing and emergency driving. Prerequisite: Admittance to the program. Lab required. 3 credit hours.

**FISC 136 Firefighter Certification II**
Second in a series of courses preparing the student for certification as a Basic Firefighter by the Texas Commission on Fire Protection Personnel Standards and Education. A study of fire service hydrants, water supplies, fire stream practices and fire hose. Prerequisite: FISC 135. Lab required. 2 credit hours.

**FISC 137 Firefighter Certification III**
Third in a series of courses preparing the student for certification as a Basic Firefighter by the Texas Commission on Fire Protection Personnel Standards and Education. A study of forcible entry techniques, rescue practices, fire extinguisher applications, ventilation practices, ladder practices, self-contained breathing apparatus and the role of the fire service during civil disorders. Prerequisite: FISC 136. Lab required. 2 credit hours.

**FISC 138 Firefighter Certification IV**
Fourth in a series of courses preparing the student for certification as a Basic Firefighter by the Texas Commission on Fire Protection Personnel Standards and Education. A study of rescue practices, aircraft fire protection and rescue procedures, structure fire salvage and overhaul techniques and the operations of automatic sprinklers. Prerequisite: FISC 137. Lab required. 2 credit hours.

**FISC 139 Firefighter Certification V**
Fifth in a series of courses preparing the student for certification as a Basic Firefighter by the Texas Commission on Fire Protection Personnel Standards and Education. A study of inspection practices, hazardous materials, fire and arson investigation, pre-fire planning, burn search investigations, emergency management operations and community relations. Prerequisite: FISC 138. Lab required. 3 credit hours.

**FISC 140 Firefighter Certification VI**
Sixth in a series of courses preparing the student for certification as a Basic Firefighter by the Texas Commission on Fire Protection Personnel Standards and Education. An in-depth study of simulated emergency operations and hands-on live fire training exercises applying basic fire suppression principles and techniques. Prerequisite: FISC 139 or approval from fire science discipline coordinator. Lab required. 1 credit hour.

**FISC 141 Fire Administration I**
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 evaluation of various government agencies to fire protection. Fire service leadership as viewed from the company officer's position. 3 credit hours.

**FISC 148 Firefighting 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 on pre-planning, study of conflagration problems, fire ground organization problems 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, 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 226 HAZARDOUS MATERIALS III
An in-depth study of the tactics used to correct problems encountered at hazardous materials incidents including: digging, draining, cylinder plugging and/or repair, evacuation procedures, use of monitoring equipment. Review of legislative mandates applicable to hazardous material incident responders. Students will have extensive "hands-on" experience throughout the course of instruction. 3 credit hours.

FISC 227 METHODS FOR FIRE SERVICE INSTRUCTION
Principles of learning and teaching including instructor responsibilities, lesson plan design and development, motivation for learning, methods of teaching, effective use of instructional aids, safety considerations, evaluation techniques, record keeping and practice teaching. 3 credit hours.

FISC 230 FIRE SERVICE COMPUTER APPLICATIONS
Designed to familiarize the student with various software packages for fire service management applications. Provides in-depth training in the use of Texas Fire Incident Reporting System ("XFRS") and the associated data analysis programs. Students will have extensive "hands-on" experience throughout the course of instruction. Lab required. 3 credit hours.

FISC 231 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 991 and 901 AM. Lab required. 3 credit hours.

FISC 232 INTRODUCTION TO CAMEO (COMPUTER-AIDED MANAGEMENT OF EMERGENCY OPERATIONS)
An in-depth study of the CAMEO computer program and its usage for hazardous material incident response. Data manipulation within the CAMEO system for pre-incident planning, chemical listing, mapping and risk assessments are explored. Students will have extensive "hands-on" experience throughout the course of instruction. Prerequisite: FISC 125. Lab required. 3 credit hours.

FISC 241 FIRE ADMINISTRATION I
Study to include insurance rates and ratings; preparation of budgets, administration and organization of training in the fire department, city water requirements, fire alarms 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 emphasis on municipal and state agencies; design and construction of fire department buildings. 3 credit hours.

FISC 246 SEMINAR
Designed to keep students informed on a variety of fireground techniques developed to address problems encountered during fire suppression operations. May be repeated for credit 1 credit hour.

FRENCH
FREN 191 BEGINNING FRENCH I (FREN 1411)
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 (FREN 1412)
A continuation of French 191. Prerequisite: French 191. Lab required. 4 credit hours.

FREN 291 INTERMEDIATE FRENCH I (FREN 2311)
Review and continued development of the four basic language skills with increased attention to reading and writing. Instruction enhanced by slides, tapes and other audio-visual aids. Prerequisite: FREN 192 or consent of discipline coordinator. Co-requisite: FREN 292. 3 credit hours.

FREN 292 INTERMEDIATE FRENCH II (FREN 2312)
A continuation of French 291. Prerequisite: FREN 291. Co-requisite: FREN 194. 3 credit hours.

FREN 293 FRENCH CONVERSATION I (FREN 110)
Intensive practice in conversational French. Prerequisite: FREN 192 or consent of discipline coordinator. Co-requisite: FREN 291. 1 credit hour.

FREN 294 FRENCH CONVERSATION II (FREN 110)
A continuation of French 293. Prerequisite: FREN 293. Co-requisite: FREN 292. 1 credit hours.

FREN 295 FRENCH LITERATURE I (FREN 2303)
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 (FREN 2304)
A continuation of French 295. A survey of French literature in the nineteenth and twentieth centuries with reading from representative writers such as Hugo, Balzac and Camus. Prerequisite: FREN 292. 3 credit hours.

GEOGRAPHY
GEOG 151 PHYSICAL GEOGRAPHY (GEOG 1301)
Introduction to the study of the physical environment. Emphasis on climates, landforms, vegetation and spatial relationships of selected geographical regions of the world. Lab required. 3 credit hours.

GEOG 152 CULTURAL GEOGRAPHY (GEOG 1302)
Introduction to the study of the cultural and economic environment. Emphasis on origins, diffusion and distribution of races, religions and languages. Lab required. 3 credit hours.

GEOL 191 PHYSICAL GEOLOGY (GEOL 1403)
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 (GEOL 1404)
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. Prerequisite: GEOL 191 or consent of instructor. 4 credit hours.
GEOL 193 ROCKS AND MINERALS IDENTIFICATION (GEOL 2409)
The course covers the chemistry, classification, crystallography, identification of minerals. Topic 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. Lab required. 4 credit hours.

GERMAN

GERM 191 BEGINNING GERMAN I (GERM 1411)
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 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 (GERM 1412)
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 (GERM 2311)
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 (GERM 2312)
Continuation of German 291. Prerequisite: GERM 291. 3 credit hours.

GERM 293 CONVERSATIONAL GERMAN I (GERM 1100)
Intensive practice in conversational German. Prerequisite: GERM 192 or consent of discipline coordinator. Co-requisite: GERM 291. 1 credit hour.

GERM 294 CONVERSATIONAL GERMAN II (GERM 1111)
Continuation of German 293, intensive practice in conversational German. Prerequisite: GERM 293. Co-requisite: GERM 292. 1 credit hour.

HEALTH, PHYSICAL EDUCATION AND DANCE

HPED 101 INTRODUCTION TO PHYSICAL EDUCATION (PHED 1301)
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.

HPED 103 PERSONAL HEALTH (PHED 1304)
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.

HPED 104 SPORTS OFFICiating (PHED 1308)
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.

HPED 106 SAFETY AND FIRST AID (PHED 1306)
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.

HPED 115 ARCHERY (PHED 1115)
Provides instruction in the basic techniques, rules and scoring. The history and terminology of archery are also investigated. 1 credit hour.

HPED 116 BADMINTON (PHED 1116)
History, rules, basic strokes and strategies in singles and doubles play are emphasized through intra-class competition. 1 credit hour.

HPED 117 BEGINNING TENNIS (PHED 1117)
Introduction to the rules, scoring and fundamental techniques for beginners are stressed. Participation by skill level for singles and doubles play is made to ensure vigorous activity for fitness. 1 credit hour.

HPED 118 INTERMEDIATE TENNIS (PHED 1118)
Develops and improves each skill level in serving, forehand and backhand drives, lobs and volleys. Performance strategies for both singles and doubles are developed. Prerequisite: HPED 117 or consent of instructor. 1 credit hour.

HPED 119 ADVANCED TENNIS (PHED 1119)
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: HPED 118 or consent of instructor. 1 credit hour.

HPED 120 BEGINNING RACQUETBALL (PHED 1120)
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.

HPED 121 INTERMEDIATE RACQUETBALL (PHED 1121)
Drills in serving, forehand and backhand drives, kill shots. Lobs and volleys help develop strategies for singles and doubles play. Prerequisite: HPED 120 or consent of instructor. 1 credit hour.

HPED 122 ADVANCED RACQUETBALL (PHED 1122)
Advanced drills for competitive raquetball players stress techniques and strategies needed for tournament competition. Prerequisite: HPED 121 or consent of instructor. 1 credit hour.

HPED 123 BEGINNING GOLF (PHED 1123)
Basic fundamentals, knowledge of the history, terminology and scoring of golf are stressed. 1 credit hour.

HPED 124 INTERMEDIATE GOLF (PHED 1124)
Advanced skill techniques and strategies of golf are developed. Prerequisite: HPED 123 or consent of instructor. 1 credit hour.

HPED 126 BOWLING (PHED 1125)
Ball selection, stance, four step approach. Rules and scoring procedures are taught. Emphasis is placed on game situations. 1 credit hour.

HPED 130 BEGINNING AEROBIC DANCE (DANC 1111)
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.

HPED 131 INTERMEDIATE AEROBIC DANCE (DANC 1172)
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: HPED 130 or consent of instructor. 1 credit hour.

HPED 132 ADVANCED AEROBIC DANCE (DANC 1173)
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: HPED 131 or consent of instructor. 1 credit hour.

HPED 133 BEGINNING MODERN DANCE (DANC 1145)
An introduction to the art and discipline of modern dance through analysis of dance techniques, exploration and composition development. 1 credit hour.

HPED 135 BEGINNING JAZZ DANCE (DANC 1147)
A practice in basic jazz movements including isolations, elementary jumps and turns. Participation in choreographed combinations using different rhythmic structures is also included. 1 credit hour.

HPED 136 INTERMEDIATE JAZZ DANCE (DANC 1148)
Further practice in jazz movements including intermediate isolations, jumps and turns. Participation in choreographed combinations using moderately complex rhythmic structures. 1 credit hour.
HPED 137 BEGINNING BALLET (DANC 1141)
Student develops an elementary ballet technique and knowledge of terminology through participation in barre, center work and beginning movement combinations; emphasis on alignment. 1 credit hour.

HPED 138 INTERMEDIATE BALLET (DANC 1142)
Further practice in ballet technique through participation in barre, center work and basic movement combinations. Prerequisite: HPED 137 or consent of instructor. 1 credit hour.

HPED 139 FOLK DANCE (DANC 1122)
Analysis of cultural backgrounds, costumes and dance techniques leads to participation in a variety of folk dances. 1 credit hour.

HPED 140 BEGINNING WEIGHT TRAINING AND CONDITIONING (PHED 1100)
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 programs. 1 credit hour.

HPED 141 INTERMEDIATE WEIGHT TRAINING AND CONDITIONING (PHED 1102)
Advanced techniques in strength development and cardiovascular conditioning assist individuals in establishing their own fitness program. Prerequisite: HPED 140 or instructor's permission. 1 credit hour.

HPED 142 ADVANCED WEIGHT TRAINING AND CONDITIONING (PHED 1103)
Weight training program tailored to the individual who has experience in proper techniques and conditioning and wants to continue in an excellent program. Prerequisite: HPED 141 or consent of instructor. 1 credit hour.

HPED 143 BEGINNING JOGGING AND FITNESS (PHED 1104)
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.

HPED 144 INTERMEDIATE JOGGING AND FITNESS (PHED 1105)
An accelerated fitness program designed for further improvement in cardiovascular endurance, flexibility and strength. Prerequisite: HPED 143 or instructor's permission. 1 credit hour.

HPED 145 WALKING AND FITNESS (PHED 1106)
The student will improve cardiovascular, muscle toning and flexibility through a vigorous walking and conditioning program. 1 credit hour.

HPED 146 CYCLING (PHED 1107)
An introductory course in cycling to learn the basic techniques of bicycling and improve cardiovascular conditioning. Students are required to have their own bicycle. 1 credit hour.

HPED 148 CROSS TRAINING I (PHED 1108)
Intensive course offering training techniques and strategies for multi-sport aerobic activities. Involves a weight training program specifically designed to build strength and endurance. This program will include intervals, hills and speed work for the cross training athlete. Concurrent enrollment in HPED 149 recommended. 1 credit hour.

HPED 149 CROSS TRAINING II (PHED 1109)
Extensive course offering training techniques and strategies for multi-sport aerobic activities. Involves competitive swimming and cycling workouts emphasizing technique and improvement. Students are required to use their own bicycle. Concurrent enrollment in HPED 148 recommended. 1 credit hour.

HPED 150 BASKETBALL (PHED 1111)
Fundamental skills and strategies are reviewed through knowledge of the history, rules, terminology. Students then participate in game situations. 1 credit hour.

HPED 152 SOCCER (PHED 1112)
Develops the basic skills and strategies through knowledge of the rules and terminology taught along with participation in game situations. 1 credit hour.

HPED 154 SOFTBALL (PHED 1113)
Fundamental skills including throwing, batting, fielding and base running as well as knowledge of the rules and terminology emphasized along with participation in game situations. 1 credit hour.

HPED 156 VOLLEYBALL (PHED 1114)
Individual skills and techniques, application of rules and an introduction to offensive and defensive strategies are stressed in this course. 1 credit hour.

HPED 160 BEGINNING SWIMMING (PHED 1131)
Non-swimmers and beginners are taught basic swimming skills and strokes. Personal safety skills and confidence in the water are emphasized. 1 credit hour.

HPED 161 INTERMEDIATE SWIMMING (PHED 1132)
Includes further stroke development in front and back crawl, sidestroke, breast stroke, diving and some competitive swimming techniques. Development of cardiovascular endurance is stressed through lab swimming. Prerequisite: HPED 160 or instructor's permission. 1 credit hour.

HPED 163 ADVANCED LIFE SAVING (PHED 1134)
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 sidestroke; or HPED 161. 1 credit hour.

HPED 164 WATER SAFETY INSTRUCTION (PHED 1135)
Successful completion of the course allows the student to take the standardized test given by the American Red Cross for certification for water instructor. Prerequisite: Current American Red Cross Senior Lifesaving Certificate. 1 credit hour.

HPED 165 BEGINNING SCUBA (PHED 1151)
The course is divided into academic training and confined-water training. All equipment is supplied except mask, fins, boot and snorkel. Students completing course requirements are eligible to perform the open water training for Professional Association of Diving Instructors (PADI) certification as a basic scuba diver (not a course requirement). Permission of HPED coordinator required. 1 credit hour.

HPED 166 ADVANCED OPEN-WATER SCUBA (PHED 1152)
Advance open-water scuba combines advanced scuba techniques and rescue diving. Scuba techniques include natural and compass navigation as well as night and deep water diving. The rescue diving techniques include rescue diver exercises in water emergency management and dive first aid. Prerequisite: Permission of HPED coordinator required. 1 credit hour.

HPED 170 SELF DEFENSE (PHED 1126)
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.

HPED 171 BEGINNING KARATE (PHED 1127)
Introduction to basic techniques, formal exercises and sparring techniques for the beginner. 1 credit hour.

HPED 172 WRESTLING (PHED 1130)
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.

HPED 173 INTERMEDIATE KARATE (PHED 1128)
Intermediate skills and techniques of karate. 1 credit hour.

HPED 180 DANCE PERFORMANCE (DANC 1151)
Experience in rehearsal, production and dance performance. Permission of the instructor is required. 1 credit hour.
**HPED 184 Improvisation (DANC 1201)**  
An exploration of movement in dance and design through problem-solving activities leading to choreographic studies. 1 credit hour.

**HPED 186 Popular Social Dance (DANC 1131)**  
Practice in contemporary social dances including pop, rock, and country western forms. 1 credit hour.

**HPED 187 Beginning Tap (DANC 1110)**  
Performance of basic rhythms and techniques fundamental to beginning tap dance. 1 credit hour.

**HEALTH SCIENCE**

**HLSC 132 Medical Terminology**  
Study of the basic structure of medical words. Included are prefixes, suffixes, roots, combining forms and plurals. Emphasis on pronunciation, spelling and definition. Basic understanding of human anatomy and physiology and the terms relating to these and their medical applications are emphasized. 3 credit hours.

**HLSC 191 General Nutrition (BIOL 1322)**  
Study of nutrients and nutritional processes including functions, food sources, digestion, absorption and metabolism with application to normal and therapeutic human nutritional needs. 3 credit hours.

**HISTORY**

**HIST 151 U.S. History I (HIST 1301)**  
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 on the colonial and early national periods through the Civil War and Reconstruction. HIST 151 and HIST 152 fulfill the Texas legislative requirement for 6 credit hours of history for baccalaureate degrees. Lab required. 3 credit hours.

**HIST 152 U.S. History II (HIST 1302)**  
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-WW II society. This course and HIST 151 fulfill the Texas legislative requirement for 6 hours of history for baccalaureate degrees. Lab required. 3 credit hours.

**HIST 251 Western Civilization I (HIST 2311)**  
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 (HIST 2312)**  
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 19th century, causes and consequences of the two world wars and modern Europe. Lab required. 3 credit hours.

**HIST 253 History of Texas (HIST 2301)**  
History of Texas from the Spanish period to the present. Emphasis on the period of Anglo-American settlement, revolution, Republic and the development of the modern state. 3 credit hours.

**HIST 297 Studies in U.S. History (HIST 2370)**  
A treatment of selected topics in the history of the United States. This course may be repeated for credit only when the course focuses on new topics. Prerequisite: HIST 151, 152. Lab required. 3 credit hours.

**HIST 298 Advanced Studies in U.S. History (HIST 2371)**  
Indepth study of selected topics in minority, local, regional, national or international topics. This course may be repeated for credit only when the course focuses on new topics. Prerequisite: HIST 151, 152. Lab required. 3 credit hours.

**HORTICULTURE/LANDSCAPE TECHNOLOGY**

**HLT 15 Native Plants of Texas**  
A non-majors course devoted to the study of those plants which are considered native to the state of Texas. Includes identification and landscape use of native plants, and the concept of xeriscape. Lab required. 3 credit hours.

**HLT 16 Plants of North Texas**  
A non-majors course devoted to the study of those plants used in the north Texas area, including trees, shrubs, groundcovers, vines and flowers. Includes identification, use and maintenance of plants. Lab required. 3 credit hours.

**HLT 17 Interior Pantings**  
Students are introduced to plants which are utilized in interior landscapes and the special maintenance required. Particular attention is given to light and water requirements, temperature control, planting media and design of interior plantings. Prerequisite: HLT 190 or consent of instructor. Lab required. 3 credit hours.

**HLT 125 Soils and Plant Nutrition**  
The study of different soil types and how they affect the availability of nutrients. Emphasis on making and keeping the soil healthy, proper drainage, and organic and inorganic properties in a soil. Includes the study of organic and inorganic fertilizers, soil additives, organic matter, proper horticultural practices and the role of micro and macro-organisms in the soil. Prerequisite: HLT 190. Lab required. 3 credit hours.

**HLT 126 Plant Pests and Controls**  
A comprehensive course in the pests that inhibit plant growth and production and the methods used to control them. Includes biological, chemical and integrated pest management (IPM) programs. Emphasis on beneficial insects, fungi and bacteria. Prerequisite: HLT 190. Lab required. 3 credit hours.

**HLT 140 Turf-Grass Science and Management**  
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. Identification and control of diseases and insects that affect turf-grasses will also be studied. Lab required. 3 credit hours.

**HLT 190 Basic Horticulture**  
Introduction to the culture of plants, including their distribution, factors which affect growth, plant structures, propagation and the impact of plants on the environment and the economy. Lab required. 3 credit hours.

**HLT 191 Woody Plant Materials**  
The study of the woody plants collected or grown for use in the landscape industry, with an emphasis on the North Texas area. Includes trees, shrubs, woody vines and ground covers. Prerequisite: HLT 190. Lab required. 4 credit hours.

**HLT 192 Herbaceous Plant Materials**  
The study of non-woody ground covers and vines, and annual and perennial flowers cultivated or collected for use in the landscape industry. Prerequisite: HLT 190. Lab required. 4 credit hours.

**HLT 210 Introduction to Landscape Design**  
An introductory course covering the history, basic drawing skills, graphic communication, site planning and the elements of landscape design. Prerequisite: HLT 190. Lab required. 3 credit hours.

**HLT 211 Home Landscape Design**  
Intensive course in landscape design. Emphasis on proper plant selection Introduction to the development of the design beyond the conceptual stage, and general construction details. Prerequisite: HLT 210. Lab required. 4 credit hours.
HLT 220 Irrigation Systems
A comprehensive study of irrigation systems including equipment, design and performance. Includes residential and commercial applications. Prerequisite: HLT 190 or consent of instructor. Lab required. 3 credit hours.

HLT 225 Landscape Construction
Construction materials and their uses in the landscape industry, including soil preparation, wood, concrete and masonry construction, landscape lighting, pools and spas, and general construction details. Prerequisite: HLT 190, 191 and 192. Lab required. 4 credit hours.

HLT 230 Site Analysis and Surveying
Analyzing a site to determine existing structures, plant, grades and potential problems. Emphasis on surveying, measurement and the mapping of existing conditions. Includes correct record keeping and area measurement. Prerequisite: HLT 190. Lab required. 4 credit hours.

HLT 235 Landscape Business Operations
Detailed study of the structures of the landscape business including cost estimating, organization, equipment and needs, interpretation of financial reports, marketing, and labor and equipment management. Emphasis on the different types of landscape operations, marketing, sales presentations, legal forms and contracts, construction law and safety. Prerequisite: HLT 190. Lab required. 4 credit hours.

HLT 250 Nursery and Greenhouse Production
The study of the production of nursery crops in the field, container and greenhouse for use in the landscape industry. Includes equipment, materials, structures, management, financial considerations and marketing related to nursery production. Emphasis on field and outdoor container crops. Prerequisite: HLT 190, 191 and 192. Lab required. 4 credit hours.

HLT 260 Landscape Maintenance I
An introduction to landscape maintenance practices, including the proper care of trees, shrubs and turf. Includes organic and inorganic fertilization and pest control. Emphasis also placed on cost analysis, estimating and safety. Prerequisite: HLT 190, 191 and 192. Lab required. 3 credit hours.

HLT 261 Landscape Maintenance II
A continuation of landscape maintenance, with emphasis on specialized maintenance programs with special problems. Small engine troubleshooting and repair included. Prerequisite: HLT 125 and HLT 260. Lab required. 3 credit hours.

HLT 265 Plant Propagation
The principles and practices of sexual and asexual plant propagation, including grafting, budding, layering, cuttings and seed germination. Soil mixtures, plant structures and the equipment and facilities for proper plant propagation discussed. Introduction to tissue culture. Prerequisite: HLT 190, 191 and 192. Lab required. 4 credit hours.

HLT 270 Arboriculture
Proper care of trees including pruning, spraying, fertilizing, protection during construction and removal of dead or diseased trees. Continued study of pests which attack trees, and the tools and equipment utilized by arborists included. Prerequisite: HLT 190, 126. Lab required. 4 credit hours.

HLT 275 Floriculture
Production of greenhouse crops, including flowering plants, herbs and interior plants. Emphasis on historical development, growing requirements and the marketing of greenhouse produced plants. Prerequisite: HLT 250. Lab required. 3 credit hours.

HLT 280 Viticulture
Growing of grapes for commercial uses, including the wine industry. Special attention given to varietal selection, proper watering, fertilizing, pruning and soil requirements for grape growing. Prerequisite: HLT 190. Lab required. 3 credit hours.

HLT 290 Field Experience I
On-the-job experience in a work assignment related to student’s field of study. Credit is earned for completion of specific learning objectives and participation in an arranged weekly seminar. Students must work 20 hours per week and be concurrently enrolled in another horticulture course at CCC. Prerequisite: HLT 190, 191 and/or Consent of the coordinator. 3 credit hours.

HLT 291 Field Experience II
Continuation of supervised on-the-job training related to student’s field of study. New learning objectives are established with continued participation in seminar, 20 hours per week employment and concurrent enrollment in another horticulture course at CCC required. Prerequisite: HLT 290. Lab required. 3 credit hours.

HLT 293 Summer Internship
Intensive on-the-job training during a continuous three-month period, required of all landscape technology majors. Students will have hands-on experiences in the landscape field and will be required to keep a journal of their experiences. Prerequisite: Consent of discipline coordinator. 4 credit hours.

HLT 296 Horticulture and Landscape Technology Seminar
A topic will be presented and a discussion led by each student during the semester. Topics based on the nursery and landscape industry. Credit based on presentation, class participation and a written paper. May be repeated for credit. Prerequisite: HLT 190 and concurrent enrollment in another HLT course at CCC. 1 credit hour.

Human Development

HDEV 010 Study Skills
Designed to help the student improve study habits and skills. Student assesses learning style, study habits and attitudes toward study. Explores methods and techniques of effective study. Specific approach to studying will be developed by each student utilizing individual preferences. Opportunity provided to practice skills enhancing the rate of learning. (This course may not be used to satisfy the requirements of an associate degree.) 2 credit hours.

HDEV 030 College Study Skills
Designed to assist the student in gaining skills and information necessary to reach his/her educational Objectives. Students will learn about resources, programs and services at CCC. 1 credit hour.

HDEV 102 Developing Leadership Potential
Develops leadership skills. Topics include leadership style, leadership strategies, problem-solving, decision-making, communication, value systems and methods of working with groups. 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, value, 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
Designed to help the student increase self-esteem and achieve 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.
HUMANITIES

HUM 151 INTRODUCTION TO THE HUMANITIES (HUMA 1301)
Designed to achieve a clearer understanding of the nature of man and his need to create. Explores the relationship between one’s own values, feelings, attitudes and ideas and man’s cultural achievements. 3 credit hours.

INTERIOR DESIGN (COMPUTER-AIDED DRAFTING)

IND 121 APPLIED INTERIOR DESIGN I
Provides information in planning interior floor plans, elevations, and considerations of traffic flow and room functions. Includes planning of traditional as well as contemporary interiors, multiple design solutions; coordination of schemes, styles and furnishings ranging from a single dwelling to the business and recreational complex. Prerequisite: CIS 121 and ART 193. 3 credit hours.

IND 221 APPLIED INTERIOR DESIGN II
Will apply knowledge and skills from IND 121 to advanced solutions to special problems of commercial and residential interiors, working drawings, specifications and client-designer communications. Prerequisite: MD 121. 3 credit hours.

IND 222 APPLIED INTERIOR DESIGN III
Designed to help the interior design student who is in the final semester prepare a portfolio of professional quality. The portfolio will be critiqued on a professional basis. Prerequisite: IND 221. Lab required. 3 credit hours.

JAPANESE

JAPN 191 BEGINNING JAPANESE I (JAPN 1411)
An introduction to the basic skills of speaking, reading, writing and listening with attention to selected aspects of Japanese culture. Lab required. 4 credit hours.

JAPN 192 BEGINNING JAPANESE II (JAPN 1412)
A continuation of JAPN 191. Prerequisite: JAPN 191. Lab required. 4 credit hours.

JOURNALISM

JOUR 151 INTRODUCTION TO MASS COMMUNICATION (COMM 1307)
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 (COMM 2311)
Extensive practice in writing various types of news stories, feature stories, business, lifestyles, etc. Prerequisite: ENGL 152 or consent of instructor. Lab required. 3 credit hours.

JOUR 153 NEWS GATHERING AND WRITING II (COMM 2315)
Continuation of JOUR 152 with emphasis on more advanced reporting techniques such as complex stories, follow-up stories, features and profiles. Prerequisite: JOUR 152. Lab required. 3 credit hours.

JOUR 251 SURVEY OF BROADCASTING (COMM 1335)
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.

LEGAL ASSISTANT

LEGL 130 BASIC LEGAL STUDIES
Law, what is it? Lawyers and legal assistants, what can they do for me? Courts, how are they related to each other? These questions and many more will be explored in this introductory course designed for anyone who has little or no background in law or its various professions. A practical course providing 1) an overview of various areas of law commonly encountered during one’s lifetime; and 2) concentrated study of the duties and responsibilities common to various legal professionals, such as legal assistants, lawyers and judges.

LEGL 131 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 persons in the legal field, their role, the practice of law and legal ethics. Prerequisite: LEGL 130. Lab required. 3 credit hours.

LEGL 132 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 hour.

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, pretrial, management, 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 legal forms. Lab required. 3 credit hours.

LEGL 230 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 procedures (interviews, requests for admissions, depositions and documents production), pre-trial proceedings and trial. Preparation of various legal documents will be required. Lab required. 3 credit hours.

LEGL 237 TEXAS LEGAL SYSTEM
Review of the court system of Texas, review of the American Judicial System touching on its historical background, introduction to the Federal Court System and legal practices and how they relate to courts and court administration. 3 credit hours.

LEGL 238 LAW OF DEFENDANTS AND POLICE RELATIONSHIPS
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 the law of personal property, contracts, legal research and projects. Survey of law of sales and credit transactions, and survey of the Uniform Commercial Code. 3 credit hours.

LEGL 251 FAMILY LAW
Marriage, separation, adoption, divorce, custody, 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, 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: corporations, joint ventures, partnerships, limited partnerships and limited liability. 3 credit hours.

LEGL 262 TORT AND INSURANCE LAW
Fundamentals of liability law 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 other 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. Security regulations, consumer protection, environmental law, worker health and safety, employment discrimination, etc. 3 credit hours.

LEGL 700 COOPERATIVE EDUCATION
Designed to integrate on-campus classroom study with hands-on work experience. The student, the student's supervisor and the instructor will develop specific goals for the student to accomplish. 3 credit hours.

MARKETING

MRKT 122 FASHION MARKETING
Introduction into 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.

MRKT 126 FASHION DESIGN
A basic course providing a background of knowledge specific to the fashion designer's job and responsibilities, its history, and the relationship of apparel design to human needs. 3 credit hours.

MRKT 220 FASHION BUYING
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. 3 credit hours.

MRKT 221 MARKET RESEARCH
Research techniques applied to problems of measuring market and sales potential, allocation of territories, demand for goods, consumer purchasing power, sales forecasts. Students learn the use of library and other sources, survey research and design of questionnaires, fundamentals of sampling and data analysis. 3 credit hours.

MRKT 222 PRINCIPLES OF SELLING
Students learn and practice selling techniques including outside and inside sales, telemarketing, presentations, reaching decision makers, closing sales, after-sales evaluation, and understanding buyers and consumers. 3 credit hours.

MRKT 223 BUSINESS ETHICS
Ethical implications of business issues. Ethical and financial problems in operating businesses (locally, nationally, internationally) are addressed. The course emphasizes social responsibility of business as well as ethical dilemmas of buyers and sellers. 3 credit hours.

MRKT 224 PROMOTION TECHNIQUES
Methods of how to manage promotion budgets, motivate and reward sales personnel, as well as construct and manage complete promotion programs. Emphasizes the interaction and coordination of promotional planning, implementation and evaluation with an organization's overall marketing strategy. 3 credit hours.

MRKT 225 FASHION PRODUCTION
Production of an actual fashion show, including lighting, community involvement, marketing, modeling, apparel selection, set design, crew organization, selection of primary target market. Offered only in spring semesters. 3 credit hours.

MRKT 226 INTERNATIONAL MARKETING
Introduction to marketing in an international, multicultural environment. Emphasis on cultural, corporate, and political differences and interactions in international business milieu internationally. Instructor permission required. 3 credit hours.

MRKT 227 PRINCIPLES OF ADVERTISING
Introduction to the principles, practices and media of persuasive communication. Topics include buyer behavior, use of media and agency operations. 3 credit hours.

MRKT 228 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.

MRKT 229 MARKETING SPECIAL TOPICS
In-depth study of selected topics on current issues in marketing and marketing options. Course may be repeated for credit as topics vary. Instructor permission required. 3 credit hours.

MRKT 700 COOPERATIVE EDUCATION I
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. 3 credit hours.

MRKT 705 COOPERATIVE EDUCATION II
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. Prerequisite: MRKT 700. 3 credit hours.

MATHEMATICS

MA T H 0 10 DEVELOPMENTAL MATH
Review of basic arithmetic operations with whole numbers, fractions, decimals, percents, basic geometry 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.

MA T H 0 20 DEVELOPMENTAL ALGEBRA
Review of signed numbers, expressions, equations, inequalities, polynomials, radicals, exponents, quadratic equations and graphs. (This course may not be used to satisfy the requirements for an associate degree.) Prerequisite: MATH 010 or equivalent. Lab required. 3 credit hours.

MA T H 0 30 INTERMEDIATE ALGEBRA
Review of operations of polynomials, rational expressions, radicals, rational exponents, absolute value equations, quadratics, solutions of linear systems and inequalities, graphing, parabolas and functions. (This course may not be used to satisfy the requirements of an associate degree.) Prerequisite: MATH 020 or one year of standard high school algebra. Lab required. 3 credit hours.

MA T H 070 INTRODUCTORY GEOMETRY
An introductory course in plane and solid geometry required for students who have not passed the TASP geometry mathematics requirement or who have not passed high school geometry and plan to take geometry. (This course may not be used to satisfy the requirements for an associate degree.) Prerequisite: MATH 010 or equivalent, Lab required 1 credit hours.
MATH 150 Contemporary Mathematics (MATH 1332)
Intended for general liberal arts or non-engineering technical students. Topics include solving equations, graphs and functions, scheduling, circuits and other math topics in management science, counting methods, probability and consumer mathematics. Prerequisite: Two years high school algebra or equivalent within the last three years. 3 credit hours. Note: This course does not satisfy prerequisite for MATH 151 or MATH 181.

MATH 151 Precalculus for Business and Economics (MATH 1324)
Designed for non-math majors which includes a study of equations, inequalities, functions, matrices, linear programming including the simplex method, probability and statistics. Prerequisite: Two years high school algebra or equivalent within the last three years. Lab required. 3 credit hours.

MATH 152 Calculus for Business and Economics (MATH 1325)
A continuation of MATH 151; a study of finite differential calculus, finite integral calculus, including exponential and logarithmic functions, functions of several variables and basic differential equations. Prerequisite: MATH 151 within the last three years. Lab required. 3 credit hours.

MATH 153 Statistics (MATH 1342)
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: Two years of high school algebra or equivalent within the last three years. Lab required. 3 credit hours.

MATH 181 College Algebra (MATH 1314)
Study of relations and functions, including linear, polynomial, rational, exponential and logarithmic, inverse functions, composition of functions, absolute value, theory of equations, complex numbers, systems of equations, matrices, progressions and the binomial theorem. Prerequisite: Two years high school algebra and one year of high school geometry or Math 070 or equivalent within the last three years. 3 credit hours.

MATH 182 Trigonometry (MATH 1316)
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 within the last three years. 3 credit hours.

MATH 183 Analytic Geometry (MATH 1348)
Study of lines, distance, conics, transformation of coordinates, polar coordinates, parametric equations and other selected topics. Prerequisite: MATH 181 and 182 or 4 years of standard high school math within the last three years. 3 credit hours.

MATH 287 Precalculus for Mathematics and Science (MATH 2312)
Study of the algebra of functions and analytic geometry. Includes polynomial, rational, exponential, logarithmic and trigonometric functions, complex numbers, vectors, and the study of conics, transformations of coordinates, matrices of axes, polar coordinates and parametric equations. The emphasis will be on mathematical reasoning and problem solving in preparation for calculus. Prerequisite: Algebra I, Algebra II and Trigonometry or equivalents. Lab required. 3 credit hours.

MATH 191 Calculus I (MATH 2413)
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 MATH 187 or equivalent (high school analysis or pre-calculus) within the last three years. Lab required. 4 credit hours.

MATH 192 Calculus II (MATH 2414)
Study of calculus of inverse functions, hyperbolic functions, applications of integration, techniques of integration, infinite series, parametric equations and polar functions. Prerequisite: MATH 191 within the last three years. Lab required 4 credit hours.

MATH 291 Calculus III (MATH 2415)
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 within the last three years. Lab required. 4 credit hours.

MATH 292 Linear Algebra (MATH 2318)
Study of linear equations, matrices, real vector spaces, linear transformations and eigenvectors. Prerequisite: MATH 192 within the last three years. 3 credit hours.

MATH 293 Differential Equations (MATH 2320)
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 within the last three years. 3 credit hours.

Music

MUS 140 Music Fundamentals (MUSI 1301)
An introduction to the elements of music theory: scales, intervals, keys, trials, elementary ear training, keyboard harmony, notation, meter and rhythm. 3 credit hours.

MUS 145 Music of America (MUSI 1310)
General study of various styles of music in America to include folk, jazz, pop, rock and 20th century American composers. 3 credit hours.

MUS 150 Choir (MUSI 2143)
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 (MUSI 1311)
The basic elements of music. Emphasis is on notation, cadences, diatonic scales, and modes. Co-requisite: MUS 152. Lab required. 3 credit hours.

MUS 152 Aural Skills I (MUSI 1116)
Skills include sight-singing, ear training and keyboard harmony. Co-requisite: MUS 151. 1 credit hour.

MUS 153 Music Theory II (MUSI 1312)
Concentrates on part-writing and harmonization with triads and their inversions. Prerequisite: MUS 151. Co-requisite: MUS 154. Lab required. 3 credit hours.

MUS 154 Aural Skills II (MUSI 1117)
Skills of sight-singing, ear-training and keyboard harmony are further developed. Prerequisite: MUS 152. Co-requisite: MUS 153. 1 credit hour.

MUS 155 Class Voice (MUSI 1183)
Class instruction in the fundamentals of singing including breath support, correct vocal production and diction. For the non-music major. This course may be repeated for credit. 1 credit hour.

MUS 156 Class Voice II (MUSI 1184)
Continuation of Class Voice I. Prerequisite: MUS 155. 1 credit hour.

MUS 157 Class Guitar (MUSI 1192)
Class instruction in the fundamentals of beginning guitar. For the non-music major. This course may be repeated for credit. 1 credit hour.

MUS 158 Class Guitar II (MUSI 1193)
Continuation of Class Guitar I employing advanced reading skills, chord structures and techniques. Prerequisite: MUS 157. 1 credit hour.

MUS 160 Band (MUSI 2124)
The band studies and performs a wide variety of music in all styles of band literature. This course may be repeated for credit. 1 credit hour.

MUS 161 Class Piano I (MUSI 1171)
Introduction to fundamentals of keyboard technique for the non-music major. May be repeated for credit. 1 credit hour.
MUS 252 "CLASS PIANO II" (MUS 1172)
Continuation of Class Piano I (MUS 161) with emphasis on development of sight reading skills, repertoire and keyboard technique. May be repeated for credit. 1 credit hour.

MUS 167 "INTRODUCTION TO SYNTHESIZER" (MUS 1271)
Introduces the elements of sound synthesis and electronic music. Lecture and demonstration topics include basic waveform creation, basic sequencing and drum machines, MIDI and SMPTE and associated synthesizer technology. Lab required. 2 credit hours.

MUS 168 "INTRODUCTION TO SYNTHESIZER II" (MUS 1272)
Further study of the elements of sound synthesis, electronic music and computer control. Lecture and demonstration topics include timbre design and computer synthesis control. Prerequisite: MUS 167. Lab required. 2 credit hours.

MUS 170 "ENSEMBLE" (MUS 1171)
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" (MUS 1159)
Any minor vocal ensemble: 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" (MUS 1306)
Understanding music through the study of cultural periods, major compositional and musical elements. 3 credit hours.

MUS 191 "APPLIED MUSIC MAJOR" (MUS 1173)
Private instruction in the area of the student's concentration, consisting of one 50 minute lesson per week. Fee required. 1 credit hour.

MUS 251 "MUSIC THEORY II" (MUS 2311)
A continuation of music theory including the study of modulation, larger forms and thematic development. Prerequisite: MUS 154. Co-requisite: MUS 252. Lab required. 3 credit hours.

MUS 252 "AURAL SKILLS III" (MUS 2116)
Aural study of superimposition, singing extensions to closely related keys, melodic and harmonic modulations, compound intervals. Prerequisite: MUS 154. Co-requisite: MUS 251. 1 credit hour.

MUS 253 "MUSIC THEORY IV" (MUS 2312)
A continuation of MUS 252 including melody, harmony, tonality and the formal processes of 20th century music. Prerequisite: MUS 251. Co-requisite: MUS 254. Lab required, 3 credit hours.

MUS 254 "AURAL SKILLS IV" (MUS 2118)
Singing remote modulations and difficult melodies. Aural study of unusual and mixed meters; altered chords; 9th, 11th and 13th chords. Prerequisite: MUS 252 Co-requisite: MUS 253. 1 credit hour.

MUS 255 "ARRANGING" (MUS 1386)
Class instruction in music arranging and composition. Techniques of transposition for various instruments, music transposition techniques including computer music printing, common notation practices and alternative scoring techniques are offered through lectures and analysis of existing scores. Prerequisites: MUS 153 and MUS 154 or demonstrated competence. Lab required. 3 credit hours.

MUS 256 "BEGINNING PIANO I" (MUS 1181)
Fundamentals of keyboard technique. Suggested for music majors. Level I. May be repeated through Level IV for credit. Lab required. 1 credit hour.

MUS 257 "BEGINNING PIANO II" (MUS 1182)
Fundamentals of keyboard technique. Suggested for music majors. Level II. May be repeated through Level IV for credit. Lab required. 1 credit hour.

MUS 258 "BEGINNING PIANO III" (MUS 2181)
Fundamentals of keyboard technique. Suggested for music majors. Level III. May be repeated through Level IV for credit. Lab required. 1 credit hour.

MUS 259 "BEGINNING PIANO IV" (MUS 1282)
Fundamentals of keyboard technique. Suggested for music majors. Level IV. May be repeated for credit. 1 credit hour.

MUS 260 "IMPROVISATION" (MUS 1283)
The creation of spontaneous melodic and harmonic ideas and the translation of these ideas into notation are emphasized. Using scales and modes, the instrumentalist improvises on his instrument, the vocalist utilizes scale singing techniques. Prerequisites: MUS 153 and MUS 154 or demonstrated competence. Lab required. 2 credit hours.

MUS 291 "MUSIC LITERATURE I" (MUS 1308)
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, Baroque and Classical eras are studied. 3 credit hours.

MUS 292 "MUSIC LITERATURE II" (MUS 1309)
A continuation of MUS 291. Emphasis is on Romantic, 20th century and popular music. 3 credit hours.

MUS 295 "STUDIO TECHNOLOGY PRACTICUM" (MUS 2371)
A comprehensive study of the theory of studio, microphone and multi-track mix-down equipment and techniques, to include repair, maintenance and troubleshooting. Prerequisite: COMM 151. Lab required. 3 credit hours.

MUS 297 "PRACTICUM: ELECTRONIC MEDIA" (MUS 2372)
This course reinforces by application and demonstration the theory and skills obtained in Survey of Recording Techniques I and II and Studio Technology with emphasis on audio production in the recording studio. Prerequisite: MUS 295 or demonstrated competence approved by instructor. 3 credit hours.

NURSING

NURS 147 "NURSING I"
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 Director. A grade of C or better is required to progress to NURS 148. Lab required. 8 credit hours.

NURS 148 "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 Director. A grade of C or better is required to progress to NURS 244. Lab required. 8 credit hours.

NURS 244 "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. Intravenous therapy is included with principles related to the administration and complications. Clinical experience in a state mental health hospital is included as a follow-up theory in mental health. Prerequisites: See Nursing Director. A grade of C or better is required to progress to NURS 259. Lab required. 4 credit hours.
NURS 259 Nursing IV
Theoretical content includes major health problems of all age groups. Theory focuses on the problems of clients with disturbances of the respiratory, urinary and circulatory systems. More complex approaches to the care planning of clients are encouraged. Students are assigned to various community health agencies. Facilities used for laboratory practice include various community health agencies. Prerequisites: See nursing director. A grade of C is required to progress to NURS 260. Lab required. 9 credit hours.

NURS 269 Nursing V
A continuation of Nursing IV. Focuses on the problems of clients with disturbances of the nervous, endocrine, integumentary systems, communicable diseases and the complex problems of burns. More complex approaches to the care of clients with burn injuries are encouraged. Students are assigned to various community health agencies. Facilities used for laboratory practice include various community health agencies. Prerequisites: See nursing director. A grade of C is required to progress to NURS 269. Lab required. 9 credit hours.

OFFICE ADMINISTRATION

OFAD 120 Beginning Typewriting
Begin instruction for students with no previous typing instruction. Structure, format and forms are developed. Skilled in positioning, tabulating, forming correspondence and formatting manuscripts are introduced. Lab required. 3 credit hours.

OFAD 121 Intermediate Typewriting
Designed to increase speed and accuracy and improve typing production rate of business correspondence, tables, forms and reports. Prerequisite: OFAD 120 or one year of high school typing. Lab required. 3 credit hours.

OFAD 122 Advanced Typewriting
Specialized instruction emphasizing mailable production of simulated office projects. Computers and interactive software are used for speed building to achieve individual speed and accuracy goals. Prerequisite: OFAD 121, OFAD 223. Lab required. 3 credit hours.

OFAD 126 Beginning Shorthand
Introduction to the principles of Gregg shorthand theory. Emphasis on ability to read, write and transcribe. Prerequisite: OFAD 120. Lab required. 3 credit hours.

OFAD 127 Intermediate Shorthand
Shorthand theory review: development of speed building and transcription skills, including emphasis on grammar and punctuation. Prerequisite: OFAD 126, OFAD 121. Lab required. 3 credit hours.

OFAD 131 Records Management
Classifying documents using basic filing systems; selecting equipment and supplies; analysis and revision of forms; survey of systems using electronics and micrographics. Lab required 2 credit hours.

OFAD 132 Proofreading/Editing
Designed to learn proofreading and editing skills necessary to assure accuracy in written documents. Prerequisite: OFAD 120. Lab required. 2 credit hours.

OFAD 133 Computer Keyboarding
Designed to learn the computer keyboard by touch using computer-assisted instruction. Lab required. 2 credit hours.

OFAD 134 Electronic Calculator
Principles, procedures and techniques of operating the electronic printing calculator: emphasis on speed, accuracy, memory functions and common business math applications. Lab required. 3 credit hours.

OFAD 135 Business Correspondence
Compose and evaluate effective business documents including letters, memos, reports, minutes and other correspondence. Prerequisite: ENGL 151, OFAD 121 or OFAD 223. 3 credit hours.

OFAD 220 Word Processing Software
Designed to teach a word processing software program determined by local area business needs. (See appropriate class schedule for software offered.) Course may be repeated for credit as software changes. Prerequisite: OFAD 120 or one year of high school typing. Lab required. 3 credit hours.

OFAD 223 Word Processing I
Designed to develop basic word processing skills for employment, personal use. Emphasis on creating and revising documents using beginning level applications. Software is state-of-the-art and subject to change reflecting business demands. See class schedule for software offered. Course may be repeated for credit as software changes. Prerequisite: OFAD 120 or one year of high school typing and 35 wpm. Lab required. 3 credit hours.

OFAD 224 Word Processing II
Designed to learn the advanced features of a comprehensive word processing program using intermediate level output applications including multiple page text, document assembly (macros), merges, files, sort and forms. Software is state-of-the-art and subject to change reflecting business demands. See class schedule for software offered. Prerequisite: OFAD 121, 223 and 55 WPM. Lab required. 3 credit hours.

OFAD 225 Machine Transcription
Instruction and practice in machine transcription of letters, memos and reports. Language, vocabulary and proofreading skills are reviewed. Specialized content for legal and medical programs. Prerequisite: OFAD 121, OFAD 223. Lab required. 3 credit hours.

OFAD 226 Word Processing III
Designed to develop advanced skills in word processing using application and desktop publishing projects requiring critical thinking and decision-making as expected in the workplace. Prerequisite: OFAD 121, OFAD 224 and 55 WPM. Lab required. 3 credit hours.

OFAD 230 Office Procedures
Acquaints students with the office management and associated techniques. Emphasis on timeliness, efficiency, telephone techniques, communication, job application/interviewing and other topics associated with office technology. Prerequisite: OFAD 121. Lab required. 3 credit hours.

OFAD 237 Medical Office Procedures
Career opportunities and qualifications for the medical secretary are explored. Emphasis on medical terminology, basic medical office practice, medical records keeping, patient care procedures, insurance procedures. Prerequisite: OFAD 121, OFAD 131. Lab required. 3 credit hours.

OFAD 700 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. Seminar meet twice monthly. Prerequisite: Second year standing in career program; program coordinator approval; division dean approval. 3 credit hours.

OFAD 705 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.
PHILOSOPHY

PHIL 151 INTRODUCTION TO PHILOSOPHY (PHIL 1301)
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 (PHIL 2303)
An introduction to symbolic logic. Emphasis on logical argument, fallacies, inductive and deductive proof, and correct reasoning. 3 credit hours.

PHIL 153 ETHICS (PHIL 2306)
An introduction to moral philosophy. Examines moral problems through a variety of ethical systems. Topics include the nature of good and evil, abortion, bioethics, sexuality and world hunger. 3 credit hours.

PHIL 154 COMPARATIVE RELIGION (PHIL 1304)
A study of religious traditions: Eastern and Western, ancient and modern. Special emphasis on such topics as the nature of God, religious experience, immortality and human freedom. 3 credit hours.

PHIL 251 SOCIAL AND POLITICAL PHILOSOPHY (PHIL 2307)
Theoretical foundations of governmental systems. Philosophers such as Plato, Hobbes, Locke, Kant and Nozick will be considered. 3 credit hours.

PHOTOGRAPHY

PHO 180 PHOTOGRAPHY I (ARTS 2356)
Introduction to photography including basic camera operations, darkroom techniques, with emphasis on visual imagination and design. Lab required. 3 credit hours.

PHO 181 PHOTOGRAPHY II (ARTS 2357)
Intermediate level course with continued emphasis on darkroom proficiency. Learning color photography will constitute a major part of the curriculum. Beginning study of the zone system of exposure and introduction to large format cameras. Prerequisite: PHO 180. Lab required. 3 credit hours.

PHO 280 PHOTOGRAPHY - PORTRAIT (ARTS 2370)
Exploration of various photographic portrait styles, including both commercial and personal aspects of photographing the human subject. Included will be documentary photography of people, the environmental portrait and studio portraits. Creative approaches to the subject are encouraged. Prerequisite: PHO 180 or equivalent. Lab required. 3 credit hours.

PHO 281 CONTEMPORARY STUDIES IN THE VISUAL ARTS - PHOTOGRAPHY (ARTS 2371)
In-depth study of concepts and practices in the visual arts. This course may be repeated three times for credit. Specialized topics of study include:
- Advanced Black and White Photography
- Advanced Color Photography
- Advanced Portrait

Advanced Black and White Photography
Study and use of large format cameras, custom paper and film developers, and application of the zone system in photography. Prerequisites: PHO 180 and PHO 181. Lab required. 3 credit hours.

Advanced Color Photography
Study of aesthetic and technical elements inherent to color image-making. Historical background combined with current trends make up a foundation for critical exploration into this medium. Prerequisites: PHO 180, 181, 180. Lab required. 3 credit hours.

Advanced Portrait
Advanced portraiture with professional photographer's approach. Includes advanced studio techniques working with color and black-and-white materials. Emphasis on development of personal style. Prerequisites: PHO 180, 181 and 280. Lab required. 3 credit hours.

Alternative Processes
Experimental, antique and non-silver printing processes and unconventional modes of presentation. The Gum-Bichromate process, the Cyanotype, the Kwik-Print, the Van Dycke and other alternate processes. Prerequisite: PHO 180. (PHO 181 also recommended). Lab required. 3 credit hours.

Architectural Photography
Exploration into the production of architectural images that go beyond mere documentation. Aesthetics, art, expression, communication, imagination, abstraction, reality, drama and emotion are a few of the dimensions discussed focusing on sensitive photographs not dependent on the quality of the subject matter. Technical considerations include view camera technique. Prerequisites: PHO 180, 181. Lab required. 3 credit hours.

Digital Photography
Photography using the digital camera and learning to shoot and compose for computer imaging. Prerequisite PHO 180. Lab required. 3 credit hours.

Documentary Photography
Extension of the great documentary tradition. Production of social documentary photographs centered on a community, phenomenon, or dealing with issues in the urban area. Prerequisite PHO 180. (PHO 181 also recommended). Lab required. 3 credit hours.

Fashion Photography
Study of historical and current advertising fashion techniques. Emphasis on cultural contributions and outside artistic influence. Studio and location techniques considered. Prerequisites: PHO 180, 181. Lab required. 3 credit hours.

Landscape Photography
Exploration into the aesthetic and technical aspects of landscape as a subject. Eighteenth century through modernist and post-modernist approaches to the idea of landscape as a primary source of meaning from both conceptual and design standpoints are examined. Prerequisite: PHO 180. Lab required. 3 credit hours.

Large Format Photography
Examination of the technical requirements of large-format cameras and the resulting aesthetic contribution to the photographic image. Zone system, image management, photo chemistry, darkroom procedures and contact printing are among the concepts investigated. Prerequisites: PHO 180, 181. Lab required. 3 credit hours.

Platinum/Palladium Photography
Review of the history of non-silver photography with emphasis on platinum/palladium processes. Examination of the various techniques in non-silver printing, learning to mix the emulsion from the basic compounds, discussing the results from different paper surfaces and different developing agents. Creative experimentation will be encouraged. Prerequisites: PHO 180 and PHO 181. Lab required. 3 credit hours.

Portfolio
Advanced photography for development of a strong portfolio of images, either commercial or fine art. Outcome will be a portfolio of high quality images that can be shown for the purpose of obtaining commercial contracts or exhibitions. Prerequisites: PHO 180, 181 and one advanced photography course. Lab required. 3 credit hours.

View Camera/Zone System
Examination of the technical requirements of large-format cameras and the resulting aesthetic contribution to the photographic image. Zone system, image management, photo chemistry, darkroom procedures and contact printing are among the concepts investigated. Prerequisites: PHO 180 and PHO 181. Lab required. 3 credit hours.

PHO 290 PHOTOGRAPHY I (ARTS 2372)
Problems and practices of photographers in news photography and advertising. Single, multiple and electronic flash will be studied and put to use. Emphasis on lighting, large format cameras and product photography. Prerequisite: PHO 180 or consent of instructor. Lab required. 3 credit hours.

PHO 291 NEWS PHOTOGRAPHY (ARTS 2373)
Problems and practices of photographers in newspaper and magazine newspapers. Shooting under different lighting and using flash and electronic flash will be studied. Emphasis on work under pressure and high-speed processing. Prerequisite: PHO 180. Lab required. 3 credit hours.
PHO 298 HISTORY OF PHOTOGRAPHY (ARTS 2372)
A study of the emergency and development of the first technological art. Emphasis is placed upon the aesthetic and scientific issues that shape the visual literacy of today's society. From early woodcuts to high tech computer imaging, the information age is scrutinized in order to understand and appreciate photography's growing importance within the visual arts. 3 credit hours.

PHO 299 HISTORY OF FILM MAKING (DRAM 2366)
An examination of the history of motion pictures and its effect on our society as well as its contribution to our culture. Emphasis will be placed on the cinema as an art form. 3 credit hours.

PHYSICAL SCIENCE

PSCI 151 PHYSICAL SCIENCE I (PHYS 1415)
Survey of the 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. Lab required. 4 credit hours.

PSCI 152 PHYSICAL SCIENCE II (PHYS 1417)
Survey of the 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. Lab required. 4 credit hours.

PSCI 153 ELEMENTARY ASTRONOMY (PHYS 1411)
Introduction to the solar system, stars, stellar groupings and galaxies; telescopes and other astronomical instruments are discussed. Physical characteristics of the motion of objects in the solar system are studied along with stellar evolution, supernova, 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 (GEOL 1401)
Concepts of earth processes and relation to man including basic principles from physical and historical geology, oceanography and meteorology for the non-science major. Lab required. 4 credit hours.

PHYSICS

PHYS 191 GENERAL PHYSICS I (PHYS 1401)
Algebra-based physics course for the science major in fields such as biology, medicine, pharmacy. Topics include laws of motion of objects, heat, work and energy, and sound. Prerequisite: 2 years of high school algebra or equivalent. Lab required. 4 credit hours.

PHYS 192 GENERAL PHYSICS II (PHYS 1402)
A continuation of Physics 191. Includes topics of electricity, magnetism, light, optics, relativity and atomic physics. Prerequisite: PHYS 191. Lab required. 4 credit hours.

PHYS 291 COLLEGE PHYSICS I (PHYS 2425)
A calculus-based analysis of classical physics designed to meet the needs of science majors in fields such as physics, computer science and engineering. 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. Co-requisite: MATH 192. Lab required. 4 credit hours.

PHYS 292 COLLEGE PHYSICS II (PHYS 2426)
A continuation of Physics 291 that addresses electric fields, AC and DC currents, dielectrics, magnetic fields, magnetic properties of matter, inductance, electromagnetism, properties of waves and optics. Laboratory experiments reinforce principles presented in lecture. Prerequisite: PHYS 291. Lab required. 4 credit hours.

POLITICAL SCIENCE

PLSC 155 INTRODUCTION TO POLITICAL SCIENCE (GOVT 2304)
Introduction to the history and methods of political science. Includes an examination of the basic concepts of politics and political behavior, an overview of the history of the discipline, the scope and methods of political inquiry and an exploration of the basic models of politics that operate in the modern world. This course does not apply toward the Texas legislative requirement of 6 credit hours of American Government for baccalaureate degrees. Lab required. 3 credit hours.

PLSC 261 AMERICAN GOVERNMENT I (GOVT 2301)
Introduction to the study of politics and government in the United States. Topics include the origin and development of constitutional democracy in the United States, emphasizing the constitutions of the United States and the state of Texas, federalism and intergovernmental relations, local government and the political process. This course may not be taken if the student has received credit for Government 281. Lab required. 3 credit hours.

PLSC 262 AMERICAN GOVERNMENT II (GOVT M2302)
Examines the institutional structures of government at both national and state levels (emphasizing Texas), including the legislative process, the executive and bureaucratic structures and the judicial process. Additional topics include civil rights and civil liberties, domestic policy, foreign relations and national defense. This course may not be taken if the student has received credit for Government 251. Lab required. 3 credit hours.

PLSC 263 INTERNATIONAL RELATIONS (GOVT 2303)
Introduction to the study of international relations, particularly emphasizing those factors which contribute to both conflict and cooperation between nations. Topics include the nation-state system, international economics, international law, security and arms control, and international organizations. Lab required. 3 credit hours.

PLSC 264 COMPARATIVE POLITICS (GOVT M233)
Introduction to the study of comparative political institutions. Topics include the history and methods of comparative political analysis, political socialization and political behavior, the creation of public policy and the politics of major world powers. Lab required. 3 credit hours.

PSYCHOLOGY

PSYC 121 APPLIED PSYCHOLOGY (PSYC 2302)
Surveys the applications of psychological knowledge and methodology in the fields of business, industry, education, medicine, law enforcement and government. Emphasis on group dynamics and adjustment factors for employment and advancement. Lab required. 3 credit hours.

PSYC 151 GENERAL PSYCHOLOGY (PSYC 2301)
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 (PSYC 2306)
Designed to assist the student in understanding 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 PSYC 153 or SOC 153, but not for both. 3 credit hours.

PSYC 155 PSYCHOLOGY OF ADJUSTMENT (PSYC 2315)
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 others around them. 3 credit hours.
PSYC 251 LIFE SPAN PSYCHOLOGY (PSYC 2314)
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 (PSYC 2319)
Research and theory regarding social factors that influence human behavior. Focuses on attitudes, interpersonal attraction, aggression, conformity, communication, values and roles and group processes. Application of these principles will be made to the human experience. A student may register for this course as PSYC 252 or SOC 252, but not both. Prerequisite: PSYC 151 or SOC 151. Lab required. 3 credit hours.

PSYC 253 PSYCHOLOGY OF PERSONALITY (PSYC 2316)
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 (PSYC 2370)
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, modellpsycho-social and socio-cultural. Students may enroll either PSYC 255 or SOC 255, but not both. 3 credit hours.

PSYC 297 SELECTED TOPICS IN PSYCHOLOGY (PSYC 2371)
An in-depth study of selected topics on current issues in psychology. Course may be repeated for credit as topics vary. 3 credit hours.

READING
READ 040 DEVELOPMENTAL READING I
Designed to raise the reading level of students reading on levels 6 through 7 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.) Prerequisite: Assessment. 1 credit hour.

READ 041 DEVELOPMENTAL READING II
Designed to raise the reading level of students reading on level 8 through 9 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.) Prerequisite: Assessment. 1 credit hour.

READ 042 DEVELOPMENTAL READING III
Designed to raise the reading level of students reading on level 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.) Prerequisite: Assessment. 1 credit hour.

READ 101 ANALYTICAL READING AND CRITICAL THINKING
An in-depth inquiry to improve comprehension in non-fiction material. The development of interpretive comprehension skills and expansion of these skills into higher level analysis. Synthesis and evaluative processes will be emphasized. Prerequisite: Assessment. Lab required. 3 credit hours.

REAL ESTATE
RUT 133 REAL ESTATE PRINCIPLES I
Fundamental principles of real estate. Emphasis 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. Includes a three-hour overview of Principles II. (Core Course). 3 credit hours.

RUT 134 REAL ESTATE PRINCIPLES II
Fundamental principles and practices of real estate. Emphasis 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. Includes a three-hour review of Principles I. (Core Course). 3 credit hours.

RUT 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.

RUT 136 REAL ESTATE MATH
Review of mathematical logic and arithmetic skills including percentages, interest, time-valued money, depreciation, amortization, profit and estimation of closing statements. (Core Course). 3 credit hours.

RUT 138 REAL ESTATE SALES AND MARKETING
Includes real estate professionalism and ethics, characteristics of successful salespeople, time management, psychology of marketing, listing procedures, advertising, negotiating and closing, financing and the Deceptive Trade Practices-Consumer Protection Act. (Core Course). 3 credit hours.

RUT 139 REAL ESTATE LAW & CONTRACTS
Six classroom hours reviewing subjects required by 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 contract forms. (Core Course). Prerequisite: RUT 134 or consent of discipline coordinator. 3 credit hours.

RUT 234 REAL ESTATE INVESTMENTS
Financing, evaluation and management of real estate investments. Real estate investment characteristics, techniques of investment and analysis. Discount and non-discounted investment criteria, time-valued money, leverage, tax shelters and consideration, investment risks and applications to property tax. (Core Course). Prerequisite: RUT 134 or consent of discipline coordinator. 3 credit hours.

RUT 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: RUT 134 or consent of discipline coordinator. 3 credit hours.

RUT 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.

RUT 237 REAL ESTATE LAW
Includes the legal concepts of real estate, land description, real property rights and estates in land, contracts, conveyances, encumbrances, foreclosure, recording procedures and evidence of titles. (Core Course). Prerequisite: RUT 134 or consent of discipline coordinator. 3 credit hours.

RUT 238 TITLE, ABSTRACT, ESCROW
Legal and procedural aspects of handling titles, abstracts and escrows. Common office practices and closing procedures. (Related Course). Prerequisite: RUT 134 or consent of discipline coordinator. 3 credit hours.

RUT 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
Financial applications useful to real estate professionals, real estate students and serious real estate investors. The emphasis is on the use of hand-held HP-17B2 or HP-19B2 calculators as a tool to analyze many financial problem situations that agents encounter in the business. Topics 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-17B2 calculator or HP-19B2 calculator. 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 firms, criteria for expansion and a study of the law of agency. (Core Course). Prerequisite: RLST 134. 3 credit hours.

RUT 297 Real Estate Special Topics
This course is designed to provide current legal, judicial, legislative and regulatory information for the real estate licensee, as well as, the advanced real estate student. Prerequisites will vary based on topics covered and will be annotated in each semester’s class schedule. Course may be repeated for credit as topics vary. (Related Course). 1 credit hour.

RUT 700 Cooperative Education I
Designed to integrate on-campus study with off-campus work experience. The student will establish five specific goals for the student to accomplish. Also requires one hour per week of lecture. (Related Course). 3 credit hours.

RUT 705 Cooperative Education II
Designed to integrate on-campus study with off-campus work experience. The student will establish five specific goals for the student to accomplish. Also requires one hour per week of lecture. (Related Course). 3 credit hours.

Respiratory Care

RTTP 112 Cardiopulmonary Anatomy and Physiology
Provides an advanced understanding of the anatomy and physiology of the cardiovascular, pulmonary, renal and nervous systems. Lab required. 2 credit hours.

RTTP 113 Respiratory Chemistry/Physics
Provides an understanding of basic math, physics laws and chemistry principles as they apply to the field of respiratory care. 3 credit hours.

RTTP 114 Respiratory Clinical Practicum I
Students apply skills learned in didactic and practiced in the laboratory in a clinical hospital setting. Lab required. 4 credit hours.

RTTP 115 Fundamentals of Respiratory Care
Develops a safe working knowledge of the function, wage and troubleshooting of fundamental respiratory care equipment. Lab required. 4 credit hours.

RTTP 120 Respiratory Pathophysiology
Builds upon a basic understanding of patient assessment, the disease process as it relates to the cardiopulmonary system and the proper recognition of the signs and symptoms of the disease along with the recommended treatment. 3 credit hours.

RTTP 121 Neonatal and Pediatric Respiratory Care
Teaches a basic understanding of various respiratory diseases associated with newborn infants and children. Lab required. 2 credit hours.

RTTP 122 Respiratory Pharmacology
Provides a working knowledge of basic drugs used by the therapist related to respiratory care patients. 2 credit hours.

RTTP 123 Respiratory Clinical Practicum II
Continues RTTP 114, providing students with practical experience in those skills acquired in the previous semester. 2 credit hours.

RTTP 124 Fundamentals of Respiratory Care II
Focuses on critical care, including airway care and classification and application of mechanical ventilators. Lab required. 4 credit hours.

RTTP 125 Respiratory Clinical Practicum III
Continues RTTP 123 providing student with opportunities to apply those skills acquired during the previou semester along with the following new skills: basic pulmonary function testing, arterial blood gas procurement and critical care. 3 credit hours.

RTTP 126 Respiratory Clinical Practicum IV
Students complete the clinical experience to prepare to perform as an entry level technician. Emphasizes emergency and critical care with a continuation of mechanical ventilatory care. 3 credit hours.

RTTP 127 Critical Care
Develops a working knowledge of basic pulmonary function testing, arterial and venous blood gas analysis, co-oximetry and tonometry as well as continuation of mechanical ventilation. Lab required 2 credit hours.

RTTP 213 Clinical Practicum V
Application of advanced respiratory techniques to include advanced critical care, neuroanatomic patterns of respiratory disease, neonatal care and post-operative care of cardiopulmonary patient. 2 credit hours.

RTTP 214 Advanced Respiratory Care I
Advanced theory and application of ventilators as well as critical care procedures, advanced neonatology and radiology as it applies to respiratory care. Lab required. 4 credit hours.

RTTP 215 Cardiopulmonary Dynamics
Provides a working knowledge of advanced cardiac diagnostic techniques to include 12 lead ECG interpretation and hemodynamic measurements. 3 credit hours.

RTTP 220 Respiratory Care Clinical Specialties
Provides an understanding of clinical areas of specialization on cardiopulmonary medicine. 3 credit hours.

RTTP 221 Advanced Respiratory Care II
Advanced procedures used in pulmonary function testing, basic management, education (patient and in-service), home care and rehabilitation techniques as they relate to respiratory care. 3 credit hours.

RTTP 223 Clinical Practicum VI
This course is a completion of the clinical experience to prepare the student to perform as an advanced respiratory care practitioner. 2 credit hours.

Russian

RUSN 191 Beginning Russian I (RUSN 1411)
Introduction to the basic skills of speaking, reading, writing and listening, designed for students with little or no previous language training. Includes an introduction to Russian culture. Instruction is enhanced by the use of audio tapes, slides, computer software and video cassettes. Lab required. 4 credit hours.

RUSN 192 Beginning Russian II (RUSN 1412)
A continuation of Russian 191. Prerequisite: RUSN 191 or equivalent. Lab required. 4 credit hours.

Small Business Management

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 Finance
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 PRINCIPLES OF RETAILING
The operation of the retail system of distribution is examined. Topics include consumer demand and layout, credit practices and computer use. 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. Instructor permission required. 3 credit hours.

SBMT 700 COOPERATIVE EDUCATION I
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. 3 credit hours.

SBMT 705 COOPERATIVE EDUCATION II
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. Prerequisite: SBMT 700. 3 credit hours.

SOCIOLGY

SOC 151 INTRODUCTION TO SOCIOLOGY (SOCI 1301)
An introduction to the social science concerned with humans and their relationship 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, social stratification and family. Lab required. 3 credit hours.

SOC 152 SOCIAL PROBLEMS (SOCI 1306)
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. Topics include: abortion, suicide, family violence, sexual variance, and crime and punishment. Lab required. 3 credit hours.

SOC 153 HUMAN SEXUALITY (SOCI 2306)
Designed to help 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 (SOCI 2301)
A functional and empathetic approach to understanding the structural developmental and institutional aspects of marriage and the family. Emphasis on the American family with a 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 (SOCI 2326)
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 252 or Sociology 252, but not both. Prerequisite: PSYC 151 or SOC 151. Lab required. 3 credit hours.

SOC 253 MINORITY STUDIES (SOCI 2319)
The historical, economic, social and cultural development of minority groups in American society. Includes the causes and consequences of prejudice and discrimination. Lab required. 3 credit hours.

SOC 255 DRUG USE AND ABUSE (SOCI 2340)
A new 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 on the major perspectives of drug use including legal, illegal, public health/crime models, social/cultural and personal. Students may enroll in either Psychology 255 or in Sociology 255, but not in both. 3 credit hours.

SOC 297 SELECTED TOPICS IN SOCIOLOGY (SOCI 2371)
An in-depth study of selected topics on current issues in sociology. Course may be repeated for credit as topics vary. 3 credit hours.

SPANISH

SPAN 191 BEGINNING SPANISH I (SPAN 1411)
An introduction to the four basic skills of speaking, reading, writing and listening. Designed for students with little or no previous language training. Includes an introduction to 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 (SPAN 1412)
A continuation of Spanish 191. Prerequisite: SPAN 191. Lab required. 4 credit hours.

SPAN 291 INTERMEDIATE SPANISH I (SPAN 2311)
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 (SPAN 2312)
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 (SPAN 2171)
Intensive practice in conversational Spanish. Prerequisite: SPAN 192 or consent of discipline coordinator. 1 Credit hour.

SPAN 294 CONVERSATIONAL SPANISH II (SPAN 2172)
A continuation of Spanish 293. Prerequisite: SPAN 293 or equivalent. 1 credit hour.

SPAN 295 SPANISH LITERATURE I (SPAN 2321)
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 (SPAN 2322)
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.

SPEECH COMMUNICATION

SPCM 151 FUNDAMENTALS OF SPEECH COMMUNICATION (SPCH 1311)
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 (SPCH 1315)
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 153 ADVANCED PUBLIC SPEAKING (SPCH 1371)
Advanced skills and techniques of speaking. Includes impromptu and extemporaneous speaking, congressional speaking and the use of parliamentary procedure, and speaking before large audiences. Prerequisite: SPCM 152. 3 credit hours.

SPCM 154 AUDIO/RADIO PRODUCTION
Concepts and techniques of sound production, including coordinating and directing process. "Hands-on" experience with equipment, sound sources and direction of talent emphasized. Lab required. 3 credit hours.

SPCM 155 TELEVISION PRODUCTION (COMM 1336)
Provides a basic orientation to the television studio, with utilization of cameras, lights, microphones, switching consoles, editing suites, character generators and telecine. Lab required. 3 credit hours.

SPCM 156 FORENSICS WORKSHOP (SPCH 144)
Preparation and practice in debate and contest speaking activities; participation in intercollegiate and inter-squad 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 291 CRITIC INTERPRETATION (SPCH 2341)
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 (SPCH 2370)
Appreciation 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 (SPCH 1321)
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 (SPCH 1318)
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 or Co-requisite: SPCM 151 or consent of instructor. 3 credit hours.

SPCM 295 RADIO AND TV ANNOUNCING (COMM 2331)
A course in the principles of, and practice in, radio and TV announcing including the study of voice (diction, pronunciation and delivery) as it relates to mediated contexts, and experience in news announcing, interviewing and commercial acting. Prerequisite or Co-requisite: SPCM 152. 3 credit hours.

SPCM 296 RADIO/TELEVISION NEWS (COMM 2332)
The preparation and analysis of news styles for the electronic media. Prerequisite or Co-requisite: SPCM 152. 3 credit hours.

THEATRE

THEA 151 INTRODUCTION TO THE THEATRE (DRAM 1310)
Various aspects of theatre are surveyed. Emphasis is on types of plays, directing, acting and technical production. Lab required. 3 credit hours.

THEA 152 STAGECRAFT (DRAM 1330)
The study and application of the visual aesthetics of design which may include the physical theatre, scenery construction and painting, properties, lighting, costumes, make-up and backstage organizations. Lab required. 3 credit hours.

THEA 185 INTRODUCTION TO COSTUMING
A survey of costuming which introduces students to the task of constructing costumes for theatrical productions. Students will gain an appreciation of the art of costuming, a sense of fashion history and changes, and will understand how the costume fits into the total concept and production of the play. Lab required. 3 credit hours.

THEA 190 THEATRE PRACTICUM—PERFORMANCE (DRAM 1271)
A practicum in theatre with emphasis on performance techniques and procedures. The student gains theatrical experience by assuming major performance roles in a college play. May be combined with THEA 191 or repeated for a maximum total of 6 credit hours. 1 credit hour.

THEA 191 THEATRE PRACTICUM—TECHNICAL (DRAM 1272)
A practicum in theatre with emphasis on theatre techniques and procedures. Students gain theatrical experience by assuming major technical responsibilities in the production of a college play. May be combined with THEA 190 or repeated for a maximum total of 6 credit hours. 1 credit hour.

THEA 192 VOICE AND DICTION (DRAM 2336)
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 (DRAM 1351)
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 (DRAM 1352)
A continuation of Theatre 193. Emphasis is on complex characterization, ensemble acting, specialized acting and acting in period plays. Prerequisite: THEA 193. Lab required. 3 credit hours.
The Texas Common Course Numbering System (TCCNS) consists of a uniform set of four-character abbreviations for academic disciplines and four-digit course numbers. The first digit of the course reflects the academic level of the course (1 = freshman, 2 = sophomore) and the second digit reflects the semester-credit-hour value of the course. The third and fourth digits are sequences. If the third number is a 7, this indicates that the course may not be common across the state; however, it is considered to be a transfer course. As always, students are reminded to contact the institution to which they plan to transfer for specific information on course equivalences and degree requirements.

### COMMON COURSE NUMBERING AT CCCC

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**Philosophy**

| PHIL 151   | PHIL 1301     | Introduction to Philosophy |
| PHIL 152   | PHIL 2303     | Logic |
| PHIL 153   | PHIL 2306     | Ethics |
| PHIL 154   | PHIL 1304     | Comparative Religion |
| PHIL 251   | PHIL 2307     | Social and Political Philosophy |

**Photography**

| PHO 180    | ARTS2356      | Photography I |
| PHO 181    | ARTS2357      | Photography II |
| PHO 280    | ARTS2370      | Photography-Portrayal |
| PHO 281    | ARTS2371      | Contemporary Studies in Visual Arts—Photography |
| PHO 290    | COMM 1316     | Photo Illustration |
| PHO 291    | COMM 1317     | News Photography |
| PHO 298    | ARTS2372      | History of Photography |
| PHO 299    | DRAM2366      | History of Film Making |

**Physics**

| PHYS 191  | PHYS1401      | General Physics I |
| PHYS 192  | PHYS1402      | General Physics II |
| PHYS 291  | PHYS2425      | College Physics I |
| PHYS 292  | PHYS2426      | College Physics II |

**Political Science**

| PLSC 155  | GOVT2304      | Introduction to Political Science |
| PLSC 261  | GOVT2301      | American Government I |
| PLSC 262  | GOVT2302      | American Government II |
| PLSC 263  | GOVT2303      | International Relations |
| PLSC 264  | GOVT2331      | Comparative Politics |

**Physical Science**

| PS CI 151 | PHYS1415     | Physical Science I |
| PS CI 152 | PHYS1417     | Physical Science II |
| PS CI 153 | PHYS1411     | Elementary Astronomy |
| PS CI 154 | GEOL1401     | Earth Science |

**Psychology**

| PSYC 121  | PSYC2302      | Applied Psychology |
| PSYC 151  | PSYC2301      | General Psychology |
| PSYC 153  | PSYC2306      | Human Sexuality |
### Faculty Directory

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Department</th>
<th>University</th>
<th>Contact Information</th>
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</thead>
<tbody>
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<td>Adler, William</td>
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<td>Andrade, Mary Anne</td>
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<td>Andrade, Mary Anne</td>
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<td>Armijo, Julio</td>
<td>Physical Plant Worker</td>
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<td>Art, Sharyn</td>
<td>Assistant Manager, Bookstore</td>
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<td>Armstrong, Suzanne</td>
<td>Revenues and Receivable Accountant</td>
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<td>Austin, Juanita</td>
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<td>S.C.T., Murray State University</td>
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<tr>
<td>Beck, Jeff</td>
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<td>Beck, Larry A.</td>
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<td>Beckman, Curtis</td>
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<td>Beebe, Patricia</td>
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<td>Bell, Mike</td>
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<td>Boyd, John</td>
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<td>Boyd, Rodney</td>
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<td>Bradford, Johnnie</td>
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<td>Brown, Denise M.</td>
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B.S.E.D., Texas Tech University
B.S., Texas Tech University
SCC/J216, 881-5908

Stephens, Pat
Employment Training Coordinator, JTPA
B.B.A., University of Texas at Austin
Pittman Office Building, Plan 964-3962

Stevens, Lawrence
Professor, Sociology
M.A., Columbia University
B.A., Brooklyn College
SCC/J124, 881-5608

Stewart, Elaine
Coordinator, Job Location
B.A., University of Texas at Dallas
CPC/A142, 548-6769

Stoutley, Donna
Manager, Payroll
CPC/B214, 548-6633

Swift, Shari L.
Executive Secretary, Institutional Advancement
CPO/A114, 548-6611

Tate, Kerry
Adviser for Students with Disabilities
B.S., Texas Woman's University
SCC/G103, 881-5950

Taylor, Fern
Secretary, JTPA
Pittman Office Building, Plan 964-3962

Tebbetts, Connie
Lab Assistant, Advertising Art
B.A., University of Houston
SCC/K227, 881-5647

Terrell, Sandra
Professor, Nursing
M.S., Texas Women's University
B.S., Texas Women's University
CPO/B312, 548-6835

Thomas, Rhonda
Data Entry Clerk, Registrar's Office
CPO/A111, 548-6743

Thompson, Linda
Professor, Office Administration
M.S., East Texas State University
B.S.E., Southern State College
CPC/A221, 548-6815

Tibbles, Alicia T.
Reference Librarian, LRC
B.S.L.S., University of North Texas
M.A., University of Houston
B.A., Baylor University
CPC/B112, 548-6866

Tolleson, Martha F.
Professor, English
M.A., East Texas State University
B.S., East Texas State University
CPO/B314, 548-6843

Tremain, Beverly Triana
Professor, HPED
Wellness Coordinator
M.A., Texas Woman's University
B.S., East Texas State University
SCC/A217, 881-5777

Tropp, Cheryl M.
Assistant/Admissions
SCC/G103, 881-5714

Tullock, Sam
Professor, History
M.Div., Southwestern Seminary
B.A., Dallas Baptist University
SCC/G222, 881-5737

Ulrich, Sharon
Employment Training Coordinator, JTPA
M.S., Virginia Commonwealth University
B.S., University of North Texas
Banco Texas, McKinney-Suite 360
542-0490

Unger, Jerri
Secretary, JTPA
Banco Texas, McKinney-Suite 360
542-0490

Upton, Card
Records Assistant, Registrar's Office
SCC/G101, 881-5740

Van Cleef, June
Professor, Photography
M.A., University of North Texas
B.A., Sul Ross State University
SCC/H106, 881-5627

Vargas, Margo
Director, Employment Resource Center
M.A., University of Texas at El Paso
B.A., University of Texas at El Paso
CPC/B108, 548-6856

Voy, Michael A.
Professor, Business Administration
J.D., University of Missouri
M.B.A., Rockhurst College
B.A., Harton College
CPO/A207, 548-6840

West, Odie
Groundskeeper
SCC/K029, 881-5697

Weathor, Kelsey
Coordinator, Job Location and Development, JTPA
B.A., University of Texas at Dallas
Banco Texas, McKinney-Suite 360
542-0490
White, Deborah
professor, Sociology/Psychology
M.A., Texas Woman's University
B.S., University of Tulsa
CPC/B311, 548-6812

White, Judith
program Specialist, Continuing Education
CPC/A356, 548-6853

Whitson, Jill
Professor, HPED/Dance Coordinator
M.F.A., Texas Woman's University
B.A., California State University
SCCB105, 881-5913

Williams, Byrd IV
Professor, Photography
M.F.A., Southern Methodist University
B.F.A., Texas Christian University
SCCH121, 881-5727

Williams, Lane
Audio/Visual Assistant, LRC
SCC/D119, 881-5917

Williamson, Marie
CASHier, Business Office
CPC/B220, 548-6653

Wilson, Deanna F.
Executive Secretary, Instruction
SCC/G227, 881-5802

Wilson, Debra
Accountant, Grants and Contracts
B.S., Florida State University
CPC/B220, 548-6628

Winburn, Larry
offset Press Operator
SCC/K129, 881-5650

Wintermote, Douglas
Director, Public Information
B.S., East Texas State University
A.S., Trinity Valley Community College
SCCB193, 881-5610

Wolfe, Betty R
Administrative Assistant, Science and Health
B.S., Stephen F. Austin State University
SCCU136, 881-5859

Wood, Sherry
Employment Training Coordinator, JTPA
B.A., Indiana University
Pittman Office Building, Plano
964-3962

Woolverton, Vicki
Clerk, Data Entry
CPC/A111, 548-6710

Wormold, Anita
Program Manager, Continuing Education
B.B.A., Adelphi University
SCOF135, 881-5849

Worsnop, Carol A.
Secretary, Learning Resources Center
A.S., Holborn School of Law, England
SCC/D123, 881-5863

Wright, Mary G.
Division Secretary, President's office
CPC/A124, 548-6605

Wytel, George
Job Shop/Recreation Room Specialist, Employment Resource Center
CPC/B113, 548-6854

York, Ricky
Physical Plant Worker
CPC/A151, 548-6690

Young, Estellita
Professor, Spanish
M.S., Youngstown State University
B.A., Youngstown State University
SCC/G215, 881-5724

Young, Marcia
Accountant, JTPA
M.S., East Texas State University
B.B.A., East Texas State University
A.A., Grayson County Junior College
BancTexas, McKinney-Suite 360
542-0490

Zerwas, Steve
Director, Academic Advising
Ph.D., University of Iowa
M.A., University of Iowa
B.A., Maryville College
SCC/G108, 881-5779

Zimmerman, Debbie
Coordinator, Special Projects, Cooperative Work Experience
B.S., University of North Texas
SCC/B230, 881-5638
**Academic Advising** - Process in which students interact with college faculty advisors in decision-making, problem-solving, and long-range planning related to the student's academic goals.

**Advanced Placement** - Credit that may be earned through standardized tests offered through the high schools.

**Advisor** - A member of the college staff who will assist you with information about CCC and various academic programs.

**Add** - To enroll in another course after your original registration within the specified time frame.

**Articulation Agreement** - After completing an associate degree at CCC, the entire degree will be used at a four-year institution to satisfy requirements for a bachelor's degree.

**Assessment** - A method to determine your preparation for college level coursework.

**Attempted Hours** - The number of hours a student is enrolled in at CCC, including college-level and developmental coursework.

**Audit** - To take a credit course without receiving a grade or credit (plus a fee).

**Behavioral Science** - A science examining human activities in an attempt to understand man's social behavior. Includes subjects such as Psychology and Sociology.

**Blue Book** - Paper used for foreseen tests available in the college Bookstore.

**CAP** - Customized Articulation Plan

**Class Schedule** - List of courses and sections for a specific semester, including names of instructor; day, hour and place of class meetings; and detailed registration procedures.

**CLEP** - College Level Examination Program is a series of standardized tests for college credit.

**Concurrent Enrollment** - The status of students who are enrolled in a CCC course while they are still classified as high school students, or simultaneously enrolled at CCC and a four-year institution.

**Core** - Refers to a common set of courses required for a degree.

**Co-Requisite** - Refers to two courses that must be taken simultaneously during the same semester.

**Course Load** - The number of semester hours for which a student enrolls in a given term.

**Credit** - Units assigned to each course.

**Credit by Exam** - Exams offered through the college that allow you to receive credit for specific courses.

**Credit Hour** - Varies by course, but generally refers to the number of hours you will spend in a specific course each week.

**Curriculum** - All the courses offered through the college.

**Dean/Director** - The administrative head of a division or department.

**Degree Plan** - The list of courses required for a specific degree, usually outlined in the CCC catalog.

**Drop** - Withdrawing from one or more courses while remaining enrolled in other courses in the college.

**Earned Hours** - The number of hours a student successfully completes including college-level, developmental, non-traditional and transfer work.

**Elective** - Credit that does not count toward a major but which is required for a degree.

**Fee** - A charge for services that is added to the tuition.

**Freshman** - A student's classification until 30 credits are earned.

**Full-Time** - To be enrolled in 12 or more credit hours during the fall and spring semester or less than 6 hours in a summer session.

**GPA** - Grade Point Average - A calculation made each semester that summarizes grades and credit hours.

**Grade Point** - The value given to each letter grade to calculate the GPA. It is calculated by dividing the total number of grade points by the total number of semester hours attempted. The cumulative GPA is based upon work taken at CCC.

**Grade Report** - A report mailed to each student containing courses and grades for a particular semester.

**Graph Theory** - A branch of mathematics dealing with the properties of abstract graphs.

**Lab** - A laboratory component which occurs both inside the classroom and outside the classroom that enhances the learning experience.

**Major** - Your specialization.

**Non-advanced Courses** - Courses offered on the freshmen and sophomore levels (100 and 200 series).

**Non-credit Course** - A course for which no credit can be earned.

**Orientation** - A session held to acquaint you with all formalities located within the college.

**Overload** - Course load of more semester hours than students are normally permitted to schedule in a given period, requiring approval of the college dean.

**Part-Time** - To be enrolled in less than 12 credit hours in the fall and spring semester or less than 6 hours in a summer session.

**Prerequisite** - Refers to a course which must be taken before you can enroll in a subsequent course.

**Priority Registration** - The first cycle of registration, which allows students to register well in advance of a semester.

**Probation** - A way to warn a student that his/her grades are below a certain standard. Probation may also be for disciplinary reasons.

**Quality Hours** - The number of college-level hours a student completes at CCC, excluding developmental, non-traditional and transfer work. These hours are used in calculating a student's CCC grade point average.

**Records, Permanent** - Cumulative record of students' course attempts, grades, credits, classification address, social security number, etc.

**Registration** - Enrollment at the beginning of a semester, including selection of classes and payment of fees and tuition.

**Section** - A number used during registration to differentiate between days, times, room numbers, and professors of the same course.

**Semester Hour** - A unit of measurement of college work equivalent to one hour of class work. A 3-hour course is equivalent to three lecture hours per week.

**Session** - Courses that are offered with start and end dates that vary from the "regular" semester. Typically, a session is shorter than a regular semester.

**Sophomore** - A student who has earned 30 credit hours or more.

**Suspension** - Dismissing a student whose grades have fallen below a certain standard. Suspension may also be for disciplinary reasons.

**Syllabus** - An outline, usually presented on the first day of class, covering course topics, textbooks required, attendance and grading policies.

**Texas Academic Skills Program (TASP)** - Testing component designed to ensure that all students attending public institutions of higher education in Texas have the reading, mathematics, and writing skills necessary to perform college level work.

**Transfer** - The official record of all COW work at a particular institution.

**Transfer Agreement** - The majority of lower level requirements, including technical courses, can be satisfied at CCC before transferring to a four-year institution. The student follows the specific degree plan for each agreement.

**Transfer Courses** - Courses that should transfer to other colleges or universities.

**Withdrawal** - To withdraw from all courses enrolled in for a particular semester.
# Collin County Community College

**Application for Admission**

(Please Print)

<table>
<thead>
<tr>
<th>Name:</th>
<th>Last</th>
<th>First</th>
<th>Mi</th>
<th>Social Security Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phone: (home)</td>
<td>Phone: (work)</td>
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</table>

<table>
<thead>
<tr>
<th>City:</th>
<th>County:</th>
<th>Zip:</th>
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</thead>
</table>

*Have you lived at this address the past 12 months or longer? Yes — No —*  
*If not, list residence for past 12 months: City: State: Zip:*

<table>
<thead>
<tr>
<th>Date of Birth</th>
<th><em><strong>/</strong></em>/____</th>
<th>Place of Birth</th>
</tr>
</thead>
</table>

*Are you currently on academic or disciplinary suspension? Yes — No —*  
*Are you claiming Texas residency for tuition purposes? Yes — No —*  
*If claim for residency is based upon parent or legal guardian, please answer the following questions:**

<table>
<thead>
<tr>
<th>Date of Graduation:</th>
<th>If you did not graduate, do you have a GED? Yes — No —</th>
<th>If yes, date GED received</th>
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<table>
<thead>
<tr>
<th>College</th>
<th>City/State</th>
<th>Dates Attended</th>
<th>Credits Earned</th>
<th>Degrees or Certificates Received</th>
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*Are you currently on academic or disciplinary probation? Yes — No —*  
*Are you a U.S. Citizen? Yes —No —*  
*Are you claiming Texas residency for tuition purposes? Yes — No —*  
*If claim for residency is based upon parent or legal guardian, please answer the following questions:**

<table>
<thead>
<tr>
<th>Driver’s License Number</th>
<th>Expiration Date</th>
<th>Date of Birth</th>
<th>Texas in the past 5 years, why did you come here within the past years? Yes — No —</th>
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**Oath of Residency**

I understand that information submitted herein will be relied upon by CCCC officials to determine my status for admission and residency eligibility. I authorize CCCC to verify the information I have provided. I certify that the information on this application is complete and correct and understand that the submission of false information is grounds for rejection of my application. Withdrawal of any offer of acceptance, cancellation of enrollment or disciplinary action.

**Return To:** Collin County Community College, Central Park Campus, Admissions Office, Room A108, 2200 W. University Dr., P.O. Box 8001, McKinney, Texas 75069-8001, (214) 541-5710 or Collin County Community College, Spring Creek Campus, Admissions Office, Room G101, 5800 E. Spring Creek Pkwy., Plano, Texas 75074, (214) 881-5710

CCC does not discriminate on the basis of race, color, religion, sex, national origin, age, disability or veteran status.
## Major Fields of Study List

**UND—Still deciding, not ready to declare a major**

<table>
<thead>
<tr>
<th>Arts and Humanities</th>
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**Science and Health**

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**Social Sciences**

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**Business and Engineering**

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</table>

**Residency Information**

In order to be eligible for Texas residency, you must have lived in Texas for 12 months prior to registration. Documentation verifying residency status may be requested for students chiming Texas residency for tuition purposes.

**Collin County Property Owners**

If you have not lived in Texas for 12 months, but you do own property in Collin County, you are eligible for a tuition waiver. A copy of your deed is required for verification. (Property owners on most types of temporary visas are generally not eligible for the ad valorem waiver.) Dependents of Collin County property owners requesting an ad valorem waiver must also submit the top portion of the federal income tax form from the current and preceding tax reports.

Contact the Admissions Office if you have any questions regarding your residency status.