Discover the windows of opportunity

Collin County Community College

1993-94 Catalog
Collin County Community College (CCCC) is an equal opportunity Institution and provides educational and employment opportunities without discrimination on the basis of race, color, religion, sex, age, national origin, disability or veteran status. In accordance with the Americans with Disabilities Act of 1990 and Section 504 of the Vocational Rehabilitation Act of 1973, CCCC provides accommodations as required by law, to afford equal educational opportunities to all people.

The programs, policies, statements, fees and courses contained herein are subject to continuous review and evaluation. CCCC reserves the right to make changes or deletions at any time without notice. This publication is intended for information only and is not intended as a contract.

Published by Collin County Community College, Public Information Office, Spring Creek Campus, 2800 E. Spring Creek Pkwy., Plano, Texas 75074.
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<td>Classes Meet to Make up for July 4 Holiday</td>
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<td>Arts and Humanities Division</td>
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<td>Health Sciences, Physical Education and Child Development Division</td>
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<td>President's Office</td>
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<td>Promise Program</td>
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<td>Vice President of Instruction</td>
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*Note: Areas without a room number for Central Park Campus, Courtyard Center for Professional and Economic Development or Spring Creek Campus have offices only at the location 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 college policy and they 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 that meet the individual and community needs. The district seeks to promote lifelong individual growth and excellence through strengthening the intellect, character and capabilities of all students. Through providing educational, cultural and civic programs and services, the college serves as a resource to local, state, national and international communities.

PHILOSOPHY AND PURPOSE
It is the philosophy of Collin County Community College that to achieve its mission it will promote:

- Universal access
- Personal development
- Open involvement and active participation in the learning and decision-making process
- Recognition, acceptance and encouragement of diversity
- High standards of innovation and excellence
- Recognition of the dignity and worth of all contributions
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 adequately prepared to transfer 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 that lead to the development of skills essential to functioning effectively in a democratic society.

CONTINUING EDUCATION

Personal and professional development for 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, community and state 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 that 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.

SAM ROACH

TINO TRUJILLO

JOHN H. ANTHONY

CCCC PRESIDENT
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 207,000 square-foot facility located on 115 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 intersection of E. 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.

A fourth site, Courtyard Center for Professional and Economic Development, was purchased in 1993 and will house economic development offices and the Continuing Education Division. Located in west Plano, Courtyard Center represents the widening reach of CCCC to its constituents.
ADMISSIONS PROCEDURES/ RESIDENCY REQUIREMENTS

CCCC 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 the 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 STUDENTS

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 and documentation of TASP status. 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 required to complete 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 legal assistant, fire fighter certificate, nursing 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.

RENEWING STUDENTS

Returning 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 and documentation of TASP status are required.

For more information on residency see page 11.

TRANSFER STUDENTS

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.

Former CCCC students who have transferred 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. 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.

6. 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.

7. Official evaluations are conducted by the degree plan coordinator. Final approval rests with the division dean.

8. 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.

9. 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).

10. 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.

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

12. CCCC does not evaluate transcripts (except for TASP exemption purposes) or award transfer credit earned at foreign institutions; however, students may be eligible for credit through examination at the college.

OTHER STUDENTS’ ADMISSIONS

CONCURRENT ENROLLMENT/HOME SCHOOL

Students in a home school program who seek concurrent enrollment in the college must meet the following conditions:

a. Have completed the equivalent of his/her junior year in high school.

b. Provide a notarized record of the home school subjects completed.

c. Comply with institutional testing requirements documenting assessment into college-level coursework.

d. Agree to limitations or conditions of admissions established by the institution (credit hours, selected courses and/or sections of courses, etc.) not to exceed two college credit courses per semester.

HIGH SCHOOL COMPLETION

Students who are under 18 years of age and who are applying for admissions based on the completion of an independent study equivalent to the high school level in a home school setting rather than through a public high school or accredited private high school, or who have graduated from a non-SACS accredited high school or non-TEA recognized high school, may be admitted on an individual approval basis providing they:

a. Are at least 16 years of age.

b. Present a notarized record of the high school equivalent work completed. This work should be consistent with TEA (Texas Education Agency) minimums for high school completion.

c. Comply with institutional testing requirements.

d. Agree to limitations or admission established by the college.

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:

1. A concurrent enrollment permission form signed by a designated high school official, student’s parents and the student.

2. An official high school transcript reflecting work completed to date.

3. Assessment.

4. Orientation and/or an admission interview.

Instructor approval may be required. All students who are admitted must maintain at least a 2.0 GPA (with 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.

TECH PREP

High school students enrolled in
tech prep programs will be eligible for admission according to guidelines under development between CCC and the local independent school districts.

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 12 years of primary and secondary education;
5. official transcripts (school records) from all colleges and universities previously attended; and
6. 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 to ensure issuance of the 1-20.

Students on Probation or Suspension

Students currently on suspension from, or otherwise ineligible for admission to, other institutions of higher education must petition for admission. For consideration, official transcripts from all colleges and universities previously attended and an interview are required prior to the first class day. 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 CCC. See the section on satisfactory progress or contact the Admissions Office for more information.

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 CCC. 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, 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

Figure 1
ORIENTATION
Orientation provides an overview of the policies, procedures, services and student activities at CCCC. The initial concerns of both the traditional aged and nontraditional aged students are addressed. The orientation dates and times can be found in the class schedule.

REGISTRATION PROCEDURES

TELEPHONE EXPRESS REGISTRATION (TEX)
TEX provides students with an opportunity to register early in courses for the upcoming 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 steps 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 must 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 or to students who are registering on an audit basis. Students may also add classes prior to their third contact hour. See page 15 for details.

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 (credit card only)—Call (214) 548-6855 or (214) 881-5747. Times and dates are listed in the current Continuing Education Schedule of Classes.
3. Mail-in registration—Send your registration information to:
   Registration, Collin County Community College,
   Central Park Campus, P.O. Box 8001, McKinney, Texas 75069-8001 or
   Courtyard Center for Professional and Economic Development, 4800 Preston Park Blvd., Plano, Texas 75093
   Spring Creek Campus, 2800 E. Spring Creek Pkwy, Plano, Texas 75074 or
   See the current Continuing Education Schedule of Classes for registration deadlines.

4. Fax-in registration (credit card only)—Check the current Continuing Education Schedule of Classes for fax availability. Fax your application to (214) 548-1702 or (214) 881-5636.
   See page 38 for more information on continuing education.

STUDENT ID CARDS
All credit students at CCCC should 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. Students will have one ID card to use throughout their 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 made 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.
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 entered 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 non-degree 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 until the student’s test results meet or exceed the minimum standards in all test scores."

Other assessment procedures may be used in exceptional cases to allow a student to enroll in upper division courses "... in cases where test results do not meet minimum standards" (Texas Education Code, Sec. 51.306). 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. All students who wish to enroll in any English or mathematics courses must be assessed for proper course placement. 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 Sept. 1, 1989. Documentation may include:

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

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 (a non-refundable fee for student’s initial card, replacement cards cost an additional $2 each)**
- Laboratory fee: none to $24 per lab*-
- Audit fee: $25 per course** plus tuition and any other applicable fees
- Credit by exam: $30 per course*
- Late registration fee: $10**
- Transcript fee: $2 per official copy
- Returned check fee: $10
- Graduation fee: $10**
- Certification fee: $5**
  > Students participating in commencement ceremonies must rent graduation regalia (cap and gown) from the college bookstore.

** non-refundable
*** some physical education classes have higher lab fees

Note: Firemen and honor graduate students that qualify for a tuition waiver are required to pay the $6 per credit hour building use fee charged to all students.

Note: Fees for continuing education courses can be found in the current Continuing Education Schedule of Classes.

TUITION SCHEDULE

<table>
<thead>
<tr>
<th>CREDIT HOURS</th>
<th>IN-COUNTY ($21 PER CREDIT HOUR)</th>
<th>OUT-OF-COUNTY ($28 PER CREDIT HOUR)</th>
<th>OUT-OF-STATE ($63 PER CREDIT HOUR)</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>$31*</td>
<td>$31*</td>
<td>$206*</td>
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<tr>
<td>2</td>
<td>$42</td>
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<td>$206*</td>
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<td>3</td>
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<td>$84</td>
<td>$206*</td>
</tr>
<tr>
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<td>$84</td>
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<tr>
<td>5</td>
<td>$105</td>
<td>$140</td>
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<tr>
<td>21</td>
<td>$441</td>
<td>$588</td>
<td>$1,323</td>
</tr>
</tbody>
</table>

* minimum tuition required per semester by law. Note: A $6 per credit hour building use fee is included in the above figures.
ADDING/DROPPING COURSES

Any change in a student’s class schedule prior to the census date 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 withdraw from a 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 withdraw from a developmental course unless they are required by TASP to be in remediation. Students who are enrolled in a developmental course for TASP purposes may not drop/withdraw from 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.

AUDITING COURSES

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. Requests for audit are processed during late registration and the add/drop period only. Registered students may not change to credit status prior to the term’s census date. 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 funding is not received for audits, a special non-refundable audit fee is assessed in addition to tuition (see page 14).

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. Foreign language classes may not be audited (The Continuing Education Department offers foreign language classes. See the current Continuing Education Schedule of Classes).

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 on the first day of the class.

Students who receive Veteran’s Administration educational benefits must conform to attendance and academic standards as established by the Veteran’s 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 HOLIDAYS

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>Description</th>
<th>Grade Points per Credit 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>IP</td>
<td>In-Progress</td>
<td>0</td>
</tr>
<tr>
<td>TP</td>
<td>TASP Remediation 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 the student’s official transcript. Grades earned in developmental education courses are not included in the grade point average.

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 grade points per credit hour
- B 3 grade points per credit hour
- C 2 grade points per credit hour
- D 1 grade points per credit hour
- F 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 "Y"s, "IP"s, "TP"s and developmental course work). An example of how to compute the grade point average is provided on the next page.

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.

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

**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. Nontraditional 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.

**SUMMER GRADUATES**

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

**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 certificate fee and regalia costs.

**HIGH ACADEMIC ACHIEVEMENT**

All students who complete 12 or more quality credit hours during a regular (16-week) term with a 3.5 CPA 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 current 4.0 GPA qualify for the President’s List.

**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” remaining 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, no more than 18 hours of NTCC may be counted toward a degree.

For additional information regarding CLEP examinations, locally administered examinations, advanced placement tests, the Customized Articulation Program, armed forces credit and credit for the completion of the Certified Professional Secretaries examination, contact the director of testing.

**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.

**ARMED FORCES CREDIT**

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

**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 in addition to the required fee for the 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. Some credit by examination may require portfolio review.

**CUSTOMIZED ARTICULATION PROGRAM (CAP)**

Through formalized contracts, CCCC 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 CCCC Admissions Office and secure approval from the corresponding program coordinator at CCCC. Petitions for credit through articulation may be obtained from the high school counselor, the Admissions Office or the program coordinators at CCCC.

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

1. meet all of the admission requirements for CCCC;
2. enroll at CCCC within one year after high school graduation;
3. complete at least six semester hours in the corresponding articulated program at CCCC, 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.

See the individual degree programs (pages 44-83) for more information on specific articulation agreements.

PORTFOLIO REVIEW FOR CREDIT

If a credit by exam requires portfolio review before credit is awarded the students must follow the steps outlined below:

1. Student must pick up institutional credit by exam/portfolio review form from the director of testing at Spring Creek Campus.
2. Contact one of the full-time faculty in the discipline for an appointment to review the student's portfolio.
3. The professor will review the portfolio to see if the coursework meets all the course requirements for which the student wants credit.
4. If the student's portfolio meets or exceeds the competencies, then the professor will complete the credit-by-exam form and will send the student to the director of testing.

If the student's coursework does not meet the competencies, he/she will be advised to take the course.

STUDENT RECORDS

PROCEDURE TO INSPECT EDUCATION RECORDS

Students may inspect and review their education records upon request to the registrar. Students should submit to the registrar a written request which identifies as precisely as possible the record or records he or she wishes to inspect. Contact the registrar for procedures on students' rights of inspection, review, and correction of educational records.

DISCLOSURE OF EDUCATION RECORDS

CCCC will disclose information from a student's education records only with the written consent of the student, except with regard to the law that provides for disclosure without consent as indicated below:

1. To school officials who have a legitimate educational interest in the records.
2. To certain officials of the U.S. Department of Education, the Comptroller General, and state and local educational authorities, in connection with certain state or federally supported education programs.
3. In connection with a student's request for or receipt of financial aid, as necessary to determine the eligibility, amount or conditions of the financial aid, or to enforce the terms and conditions of the aid.
4. If required by a state law requiring disclosure that was adopted before Nov. 19, 1974.
5. To organizations conducting certain studies for or on behalf of the college.
6. To accrediting organizations to carry out their functions.
7. To parents of an eligible student who claim the student as a dependent for income tax purposes.
8. To comply with a judicial order or a lawfully issued subpoena.
9. To appropriate parties in a health or safety emergency.
10. As it relates to directory information, unless the student restricts directory information.

DIRECTORY INFORMATION

Directory information may be released to the general public without the student's consent. Directory information is defined as:

1. Student name
2. Student 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/enrollment
9. Most recent previous educational institution attended
10. Degrees and awards received

A student may request that directory information be withheld from the public by completing and filing a request with the Registrar's Office. This request must be submitted during the first twelve days of class of a regular semester, or prior to the census date of the current semester. If no request is filed, directory information will be released upon inquiry. Filed requests are valid until revoked by the student.

Directory information is the only part of a student's record that may be released without the student's prior written permission, except with regard to the law that provides for disclosure without consent.
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 CCCC, excluding developmental, non-traditional and transfer work. These quality hours are used in calculating a student’s GPA at CCCC.

Students who do not earn at least a 2.0 GPA, to remain in good academic standing, will be placed on one of the following five academic actions:

- academic warning
- academic probation
- continued enrollment on probation
- academic suspension
- second suspension
- academic dismissal

Students placed on any academic action, with the exception of academic warning will be subject to **Students on Academic Action Program (SOAAP).**

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 apply.

STUDENTS ON ACADEMIC ACTION PROGRAM (SOAAP) PROCEDURE

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 the adviser for academic action on their advising registration ticket prior to registration. These students are strongly recommended to participate in SOAAP (see consequences for non-participation). Students who have registered early and have been subsequently placed on academic probation should meet with the adviser for academic action 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 the adviser for academic action prior to registration and will not be eligible for the registration signature waiver option. Students on continued enrollment on probation are strongly recommended to participate in SOAAP (see consequences for non-participation). 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 academic suspension are required to participate in SOAAP, if they petition for re-enrollment for the next regular semester following the semester in which they were placed on suspension (see consequences for non-participation). Students may, however, petition for special permission to reenroll.

Students who register early, through TEXT, 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 reenroll must participate in SOAAP (see consequences for non-participation). Guidelines for re-enrollment are established by the Academic Progress Task Force. The Students on Academic Action Program is administered by the Academic Advising Center.

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 reenrollment during that calendar year.

Dismissal

A student who reenrolls after the second suspension will be on academic probation status and will be required to maintain a minimum of a 2.0 GPA for each semester until the
cumulative grade point average is 2.0 or better. The student who does not maintain a minimum 2.0 GPA for each semester until the cumulative GPA is 2.0 or better is subject to academic dismissal from CCCC. The Academic Progress Task Force will consider appeals after a period of one calendar year.

VETERAN STUDENTS

Veteran students who make unsatisfactory academic progress will be reported to the Veterans Administration as being on suspension at the end of the second consecutive semester when the cumulative GPA remains below 2.0. If a non-punitive grade is assigned to a veteran and is not converted to a punitive grade within a limited period of time, this will be reported to a VA Regional Office within 30 days of issuance of the nonpunitive 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 completed 30 or more credit hours.
- **Full-time**: A student enrolled for 12 credit hours or more in a regular semester or six credit hours or more in a 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 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 18 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.

*Note:* See “Student Load” chart in the 1993–1994 CCCC Student Handbook for recommended course load based on hours worked per week.

TRANSCRIPTS

Requests for official transcripts must be made in writing by the student to the registrar. A student’s written permission must be on file in the Registrar’s Office before transcripts are released. To request a transcript, students may complete a transcript request form available from the Registrar’s Office, or send a signed request letter addressed to the Registrar’s Office. A $2 fee will be charged for each official transcript requested. Prepayment is required. Checks, cash, MasterCard or Visa are accepted.

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/withdraw** from their only developmental course unless they completely withdraw from all college courses. A **student who discontinues class attendance and does not officially withdraw will receive a performance grade for the course.**
ACADEMIC ADVISING

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 interested in talking with an adviser should contact the Academic Advising Center located within the Student Development Center at either campus. New students are advised through the Academic Advising Center prior to their first enrollment at CCCC.

Students are strongly encouraged to meet with an academic adviser each semester to prepare and update their degree plans and evaluate their academic progress.

Academic advising in the Student Development Center offers students:
- assistance for undecided and new students in selecting a field of study;
- facts about classes and programs;
- help with registering as a CCCC student and adjusting to college;
- 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); and
- transfer information for those seeking to attend a four-year institution (Transfer Lab).

ARTICULATION AND TRANSFER

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.
- Four-year institutions determine courses which will be required for degrees. Check the appropriate catalog for current 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

CCCC 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).

**GUARANTEE FOR TRANSFER CREDIT**

CCCC guarantees to its students, who have met the requirements of selected "Transfer Guides," the transferability of course credits to those Texas colleges and universities that participate in the Guarantee for Transfer Credit program. If such courses are rejected, the student may take tuition-free alternate courses at CCCC that are acceptable to the four-year institution. Special conditions that apply to the guarantee program are available on request.

This guarantee is designed for CCCC students who have made firm decisions about their major and the institution to which they plan the transfer. CCCC is working with several Texas institutions to make transfer guarantees possible. Students should contact the director of articulation and transfer for further information.

**"NEXT STEP" TRANSFER PROGRAM**

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

- List of course equivalencies for CCCC and four-year institutions
- 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 for all requirements.* The student should know admissions requirements, specific department requirements, deadlines and courses that will satisfy a specific degree.

**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 suggested for all first-time students. Students who wish to enroll in any of the following courses must be assessed.

- **English**: English 0300, 0305 and 1301.
- **Mathematics**: any developmental math course, Math 1314, 1316, 1324, 1332, 1342, 1348. Other assessments may be required based upon faculty and adviser recommendations.

**DEVELOPMENTAL MATHEMATICS ASSESSMENT POLICY**

All students enrolling in mathematics courses are required to participate in assessment or show proof of prerequisites (a transcript validating that the prerequisite course has been passed within the last three years). A student may be placed in the developmental mathematics sequence (Math 0300, 0305, 0310) by scores on Test I, II or III. A student is allowed to take the assessment twice before his/her mathematics entry level is established for enrollment during that semester. If a student decides not to enroll in a mathematics course during the semester of assessment, he/she may retain this assessment score for one year, or he/she may reassess at the beginning of the semester when enrollment is planned. However, once a student has been placed in the proper course and has enrolled in the developmental mathematics sequence of courses, he/she must continue from the point of entry through MATH 0310 before enrolling in MATH 1332, 1324, 1342, 1314 or 1316.

In addition, students who are interested in taking English as a Second Language (ESL) as a non-credit course through Continuing Education must first take the CLOZE Test in the Testing Center. Students who are interested in taking ESL courses as a credit course must first take the Michigan Test of English
Language Proficiency (MTELP), during a group testing session. Students are placed in the appropriate course based on scores earned in the MTELP. Please see the current schedule of classes for dates and times of the testing session(s).

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 13) must take TASP prior to accumulating nine or more 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:
- Certified Professional Secretaries Examination
- CLEP-College-Level Examination Program
- ACT—American College Testing Program
- SAT—Scholastic Aptitude Test
- PEP—ACT Proficiency Examination Program
- 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) 44-646
- 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.

**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 Cassette
   - Annual Career Fair
   - Workshops/Seminars
   - Mentor Program

   * Effective March 1, 1991, a fee scale was implemented for all non-Collin County Community 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
computerized job referral system is used to match employer needs with individual skills. Part-time and full-time jobs are listed.

- Career Guidance and Job Placement is available for graduates.

- Internships: An internship program provides ongoing experiential learning beyond the classroom. Students receive "hands-on experience" in a professional work setting.

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

**Guarantee for Job Competency**

Graduates of the Associate of Applied Science (A.A.S.) degree program or recipients of a Certificate of Proficiency, who are judged by his/her employer to be lacking in technical job skills identified as exit competencies for his/her specific degree program, will be provided up to nine tuition-free credit hours of additional skill training by CCCC. Special conditions that apply to the guarantee are as follows:

1. The graduate **must** have earned the A.A.S. degree or Certificate of Proficiency beginning May 1993, or thereafter, in a technical, vocational or occupational program identified in the college's general catalog.
2. The graduate must have completed the A.A.S. degree at CCCC with 45 hours in residence, and must have completed the degree within a five-year time span. All course work for the certificate must have been completed at CCCC within a five-year time span.
3. Graduates must be employed full-time in an area directly related to the area of program concentration as certified by the appropriate division dean.
4. Employment must commence within six months of graduation or certification.
5. The employer must certify, in writing, that the employee is lacking entry-level skills identified by CCCC as program exit competencies and must specify the areas of deficiency within 90 days of the graduate's initial employment.
6. The employer, graduate, division dean, job placement counselor and appropriate faculty member will develop a written educational plan for retraining.
7. Retraining will be limited to nine credit hours related to the identified skill deficiency and to those classes regularly scheduled during the period covered by the retraining plan.
8. All retraining must be complete within a calendar year from the time the educational plan is agreed upon.
9. The graduate and/or employer is responsible for the cost of books, fees and other course-related expenses.
10. The guarantee does not imply that the graduate will pass any licensing or qualifying examination for a particular career.
11. The program can be initiated by employer or graduate by a written request to the vice president of instruction within 90 days of the graduate's initial employment.

For more information, please contact the director of career planning and placement or the director of articulation and transfer.

**Counseling**

The college is aware of the relationship between mental health and academic performance. In an effort to help students succeed in their studies, the college offers personal counseling for family and relationship problems, stress reduction, anxiety, depression, substance abuse and eating disorders.

The college Counseling Department has designed a series of classroom presentations on applied counseling topics, such as stress reduction and developing academic potential. The counseling staff is also available to tailor classroom presentations to meet the needs of specific students and classes. For assistance with counseling concerns call 548-6770 or 881-5780.

**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.

**Institutional Policy of Academic Progress for Financial Aid**

(Revised January 1993)

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

**Academic Progress Requirements**

Federal law requires that to receive financial aid, students must be
making satisfactory progress in their course of study. CCC requires the following GPA and completion 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 CPA 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 in six to 11 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 one to five credit hours in any semester or combined summer sessions must complete all attempted credit hours.
4. An "IP" or "I" in developmental courses will not satisfy the completion requirements.

Failure to Meet the Standards of Academic Progress
In the following 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 may be 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 may be awarded financial aid on a probationary basis for one semester only.
3. If the student's current GPA is at least a 2.0, but his/her cumulative CPA is below a 2.0, financial aid will be awarded on an extended probationary status.
4. 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.
5. During the first period of suspension, the student must enroll at least half-time for one semester at CCC, pay the expenses related to that enrollment and maintain the standards of academic progress to reestablish eligibility for financial aid.
6. 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 to reestablish eligibility for financial aid.
7. Following any period of suspension, the student will again be eligible for funding on a probationary basis for one semester or combined summer session(s).
8. 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 may be notified in writing.

Incremental Measurement of Progress
Academic progress of recipients will be measured three times a year—following the fall, spring and summer semesters.

Maximum Time Period for Completing Educational Objectives
1. Students receiving financial aid funds will be expected to complete their educational objective or course of study within a reasonable period of time. The maximum credit hour limit for CCC is 75 credit hours (including all transfer credit), excluding developmental education courses.
2. Funding beyond the maximum credit hour limit may be approved by the Financial Aid Task Force and must be based on mitigating circumstances.

Appeal Process
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 chair of the Financial Aid Task Force by writing a letter explaining any mitigating circumstances. The financial aid appeals task force will evaluate the petition and decide whether to award the student financial aid. The decision will be made within 10 working days after receiving letter, official transcripts and any supporting documentation.

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,
developed courses, if required as a prerequisite to enable a student to successfully complete a student's educational goal or TASP requirements, may be considered for funding.

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

3. All courses for which an "I", "IP", "F" or "W" grade will not be treated as completed courses.

4. Repeated courses may be considered for funding if the student received a passing grade of "D" or better when the course was first taken.

5. Financial aid may be used for developmental courses that are prerequisites for credit courses and mandated TASP requirements.

FINANCIAL AID PROGRAMS—FEDERAL ASSISTANCE

FEDERAL 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: $400-$2,300/year).

FEDERAL SUPPLEMENTAL EDUCATIONAL OPPORTUNITIES GRANT (FSEOG)

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).

FEDERAL WORK STUDY (FWS)

Students demonstrating financial need may be considered for the work-study program. They are allowed 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).

FEDERAL 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 subsidized 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, but for periods of enrollment beginning on or after Oct. 1, 1992 students can get a Stafford Loan regardless of need—that is, regardless of their or their family's income. Variable interest rates are set each June but not higher than nine percent. (Students can borrow $2,625 for the first year of completion in the program of study, beginning the second year the student may borrow $3,500.)

FEDERAL PLUS LOANS/FEDERAL SUPPLEMENTAL LOANS FOR STUDENT

Federal PLUS loans are for parents who want to borrow money to help pay for their children's education; Federal Supplemental loans for students (SLS) are for student borrowers. Both loans provide additional funds for education expenses and, like Federal Stafford Loans, are made by a lender such as a bank, credit union or savings and loan association. Credit rates will vary. (Students may borrow $4,000 of completion of the first and second year in the program of study.)

FINANCIAL AID PROGRAMS—STATE ASSISTANCE

TEXAS PUBLIC EDUCATION—STATE 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). See Financial Aid Office for more information.

FINANCIAL AID PROGRAMS—SCHOLARSHIPS

Scholarships at CCC 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, Eric Funk, Jackie Dooley Memorial Scholarship for Learning Disabled Students, Friends of the Library, Medical Center of Plano Endowment, John Ferguson Foundation Scholar's Program, Louise M. King Endowment, Performing Arts, Rodeo Club, Trustee-Merit Based and the EL Roy HP Cohick.
Scholarship information is located in the Financial Aid Office and the scholarship bulletin board.

FINANCIAL AID PROGRAMS—OTHER

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 C.G. 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—Nov. 1
- Summer semester—March 1

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 requiring students born after Jan. 1, 1957, to confirm appropriate immunizations or immunity to the following diseases: tetanus/diphtheria, mumps, measles and rubella.

HUMAN DEVELOPMENT
Credit and noncredit 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.

PROMISE PROGRAM
The Promise Program is available in conjunction with the college to assist displaced homemakers/single parents in coping with major life transitions due to separation, divorce, widowhood, spousal disability or single parenthood. Funded through a Carl D. Perkins Vocational Education Grant and the Texas Higher Education Coordinating Board, the Promise Program provides comprehensive support services aimed at helping the displaced homemaker/single parent to re-enter the work force and to contribute fully to the well-being of their family and community.

The program provides services that include:
- personal counseling (individual and group)
- life skills workshops
- vocational assessment and career counseling through the Future Shop
- educational assessment
- vocational training and educational advancement
- information and referral to social service agencies
- job readiness and reemployment preparation
- support network and support groups
- child care tuition assistance to qualified clients

Please call the Promise Program for more information at 548-6851 or 881-5791, ext. 6851.
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 extracurricular 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. Student Activities staff is available to help students in become involved in college programs and activities. Contact the Student Activities Office (548-6788 or 881-5788) for more information.

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 extracurricular activities.

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

STUDENT CODE OF CONDUCT

CCCC 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.

STUDENTS WITH DISABILITIES
All campuses are accessible to all individuals with disabilities. Sign language interpreters, adaptive equipment, and academic and personal advising are provided to make college life more convenient. Lockers are available at Spring Creek Campus for temporary or long-term (semester) use.

The Special Needs Center, located within the Learning Resources Center, is equipped with low vision readers, a scanner and a voice synthesized speech program on IBM compatible personal computers.

Contact the Services for Students with Disabilities Office, Spring Creek Campus/G103, 881-5950 voice/TDD, for information about CCCC's facilities and specialized services. Students with learning disabilities who need assistance should contact Project SPARK staff at 881.5627 or 548-6835.
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 torn covers, excessive markings and 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.
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 currently enrolled in another credit course at the college.

Students who are 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 credit hours 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.

SUCCESS

SUCCESS is a cooperative work experience program that unites classroom 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.

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 must enroll in the developmental 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.

EXPERIENTIAL LEARNING

A variety of learning laboratories are in use at CCCC to facilitate experiential learning by students.

BEHAVIORAL SCIENCES LABORATORY

Behavioral Science laboratories are located in both campuses. They are designed to provide students with the opportunity to replicate and/or conduct research projects in psychology and sociology. The labs provide students with an environment in which to conduct practical applications of theoretical principles from course work as well as opportunities to conduct original projects to promote the use of the investigative methods of the behavioral sciences.

The laboratories are equipped with computers, audiovisual equipment, biofeedback equipment and other state-of-the-art equipment. They include an observation room that connects to the classroom/research laboratory.

MACINTOSH WRITING CLASSROOM

Several sections of English 1301 and 1302 are taught in the Macintosh classroom located on the second floor of the Spring Creek Campus LRC. Students in these classes use software including MacWrite II™, Aspects™ and Correct Grammar™.

MATH LAB

The Math Lab is provided for students enrolled in college and developmental math courses. In addition to professional and peer tutoring, students have an opportu-
nity to use videos and computers to reinforce classroom lectures. Lab hours vary each semester. Students should check the Math Lab schedule for current information.

**STUDENT MEDIA WORKSHOP**

A video production and editing facility is available for course-assigned student projects. Computer generated special effects may be added as well as titles and credits. Two studio quality cameras are available as well as equipment for special effects and graphics. A Commodore Amiga 2500 with Video Toaster and audiodubbing capabilities enables students to produce professional-looking videos.

**WRITING CENTER**

The Writing Center is staffed by instructors to help students with writing assignments. Appointments are recommended but drop-in students are also welcome. The Writing Center is in the LRC.

**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 CCCC, 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.

**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 an 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 Academic Advising Center 881-5778.

**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 1470) and for participating in its field trip which emphasizes reef ecology and the biology of reef organisms. SCUBA certification is required.

**MONTH-IN-GERMANY PROGRAM**

In the Month-in-Germany program, students earn seven hours of college credit in German language and general humanities. Participants spend one week in Berlin, followed by three additional weeks in a dramatic Alpine setting on the Austrian border.

**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. Offered biennially since 1987, the program requires no previous language training.

**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.

**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 the following:

**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 photography or child care. Interested students should inquire at the office of the appropriate division dean.

**LEARNING RESOURCES CENTER (LRC)**

The Learning Resources Center (library) has locations on both Central Park and Spring Creek campuses.
Materials include books, periodicals and media as well as the latest in electronic databases and computer technology.

- Books 90,000
- Periodicals 700
- Videotapes 4,500
- Music Recordings 1,200
- Books on Cassette 450
- CD-ROM Databases 30

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

**HOURS**

**CENTRAL PARK CAMPUS**
- Monday-Thursday: 245 am–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 a.m.–10 p.m.
- Friday: 7:45 a.m.–5 p.m.
- Saturday: 9 a.m.–4 p.m.
- Sunday: 1–5 p.m.

*Hours may vary when classes are not in session.*

**ALTERNATIVE LEARNING CENTER (ALC)**

The ALC provides alternatives to traditional classroom instruction. Microcomputers, video cassettes, teleconferences and other types of media are used to supplement instruction. Telecourses are also available for students unable to attend traditional courses.

**CD-ROM NETWORK**

A network of CD-ROM databases is available for students and staff. Utilizing the latest optical storage technology, this group of workstations provides the equivalent of over four million pages of text. The databases cover a variety of fields including business, psychology, poetry, literature, geography and history. Many of the CDs utilize graphics and sound as well as the ability to search by keywords. Come see the Library of the Future today in the LRC.

**LRC HANDBOOK**

An LRC handbook is available to explain the services of the LRC and to provide instruction in the use of materials.

**MUSIC PROGRAM**

The Music Department at CCCC 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, chamber choir and chanson. Admission to the jazz choir is by audition only. Performances by all three choirs are held throughout the school year, both on and off campus. Other opportunities for musical involvement include a variety of instrumental and choral ensembles, and involvement in the Plano Community Band and Plano Civic Chorus.

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-track 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).

**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.

**SAFETY AND SECURITY**

Safety and security is a concern for all members of the college community including students, college employees and visitors. Possession of firearms or other lethal weapons on campus or at college-sponsored events is illegal, except for commissioned police officers as prescribed by law.

In compliance with the Drug-Free Schools and Communities Act Amendment of 1989 (Public Law 101-226) and Texas House Resolution 2253 and Senate Resolution 645, CCCC forbids the unlawful manufacture, distribution, sale, possession or use of illegal drugs, alcoholic beverages and tobacco products on campus or at college-sponsored events. For more information, refer to the current CCCC Student Handbook, or contact the dean of students or the director of human resources.

**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 THE COLLEGE

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.

SPEECH PROGRAM

Credit courses in this area go beyond the classroom to allow students to develop their communication and performance skills before local, state and national audiences.

SPCH 2341 (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 SPCH 1144 (Forensics Workshop) participate in faculty-student debates, campus auctions and speech competitions throughout the country. Students enrolled in COMM 2331 (Radio and TV Announcing) learn on-camera announcing techniques and gain experience in news broadcasting and interviewing.

Interested students should contact the Arts and Humanities Division Office for further information.

STUDENT WELLNESS

FITNESS CENTER

A major emphasis of the 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; a weight training room with treadmills, Stairmasters™, rowing machines, weight machines and bicycle ergometers: a dance studio: and three racquetball courts.

The Spring Creek Campus Fitness Center consists of the main gymnasium with rubber running track; weight training room with Universal Super Circuit single station weight machines, free weights, treadmills, Stairmasters™, 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 a new exercise regimen, students, faculty, staff and community members are encouraged to take a fitness assessment in the Wellness Center. Contact the wellness coordinator 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 and a $3 non-refundable, initial ID card fee. Contact the Fitness Center at either campus (CPC/E212, 548-6893; 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 CCCC. For information, contact the director of intramurals, 881-5848 or 548-6891.

TELE COURSES

CCC 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 taken.

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.

THEATRE PROGRAM

The Quad C Theatre Program at CCCC offers a full curriculum of theatre study including work in beginning and advanced acting, voice and diction, stage and lighting design, costume design and stage makeup, theatre history and dramatic literature, and specialty courses in circus skills, stunt work and stage combat.

Students and community members interested in theatre performance are encouraged to audition for the plays performed each year. Auditions are announced both on and off campus.

Theatre program faculty have experience in professional stage and motion picture work, including such projects as the Broadway musical Sarafina!; rock tours with Van Halen, Michael W. Smith and Hank Williams, Jr.; films such as Young Guns, JFK, and Flesh and Bone; and the TV miniseries Murder in the Heartlands.

Theatre program faculty have experience in professional stage and motion picture work, including such projects as the Broadway musical Sarafina!; rock tours with Van Halen, Michael W. Smith and Hank Williams, Jr.; films such as Young Guns, JFK, and Flesh and Bone; and the TV miniseries Murder in the Heartlands.

The theatre facility is comprised of two separate performance spaces including the 365-seat John Anthony Theatre and the 100-seat Black Box Theatre. The multimillion dollar complex also houses three dressing rooms, a theatre box office, costume vault and construction shop, scene and paint shop, in addition to acting/directing classroom spaces.

For more information about the Quad C Theatre Program, contact the coordinator of theatre (SCC/C155, 881-5679). For ticket and season subscription information, contact the Quad C Theatre Program Box Office at (SCC/C120, 881-5809).
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 learning opportunities to the public as conveniently and economically as possible.

Learning goes beyond initial career preparation, traditional concepts of full-time study and program degree completion and encourages education renewal. CCCC endeavors to provide learning opportunities 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 jobspecific customized training for use by business and industry with curricula relevant to needs of the local economy;
- contributing to the growth and development of local business and industry through economic development activities on local, state and national levels;
- responding to the nonacademic or extracurricular interests and needs of adults by providing a sufficient number of personal development courses;
- offering community service activities designed to help disadvantaged individuals and communities;
- facilitating the interaction 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 500 courses pertaining to business and professional development, personal development and extracurricular activities. Conferences, seminars and workshops on special topics are also offered throughout the year.

**CONTINUING EDUCATION UNITS**

The Continuing Education and Contract Training offices may offer courses which award credit or Continuing Education Units (CEUs), 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 548-6790, ext. 5850 in McKinney or 881-5850 in Plano.
COLLIN COUNTY LAW ENFORCEMENT ACADEMY

The Law Enforcement Academy received academy status in June of 1990 from the Texas Commission of Law Enforcement Officer Standards and Education (TCLEOSE). Working with the Collin County Sheriff’s Office and other law enforcement agencies, the Law Enforcement Academy provides quality training programs by and for experienced law enforcement officers.

These courses provide basic and advanced training designed to enhance both the technical skills as well as the professionalism of law enforcement officers. The Law Enforcement Academy provides TCLEOSE training credits as well as Continuing Education Units to all students successfully completing program requirements.

COLLIN COUNTY TRAINING AND EMPLOYMENT PROGRAM (CCTEP)

The CCTEP 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 CCCC as the administrative entity for JTPA. Eligible persons who are needing to enter or reenter the workforce may qualify for employment training services. Special services are also 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.

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, retraining 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.

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.
EMPLOYMENT RESOURCE CENTER

The Employment Resource Center is an ongoing 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 work forces 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, CCCC, 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 on the job learning experiences and smooth transitions from school to the workplace.

The college and other consortium partners are beginning to develop and implement technical preparation (Tech Prep) programs which will allow students to complete the new Associate of Applied Science with Advanced Skills degree. Upon earning this 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 548-6730 in McKinney or 881-5790, ext. 6730 in Plano.

SMALL BUSINESS DEVELOPMENT CENTER (SBDC)

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

TEXAS RESOURCE CENTER FOR WORK TRANSITION PROGRAMS

CCCC 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 CCCC's Cooperative Work Experience, S.E.E. (Students with Experience and Education), and SUCCESS (service-based work experience program), as well as other types such as apprenticeships, 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. For more information on how to become involved in work transition programs, call 548-6734 in McKinney or 881-5790, ext. 6734 in Plano.

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.
## Degree Programs

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<td>Computer Aided Drafting and Design</td>
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<td>Physical Education, Health, Dance</td>
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</table>
CCCC 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 (AAS.) degrees. The areas of study on the following pages reflect the courses which are suggested to obtain an associate degree or certification. In addition, students 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 multicultural 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.

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 PHED 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.

GENERAL EDUCATION CORE:
(CH = CREDIT HOURS)

I. ENGLISH
9 CH to include:
  6 CH ENGL 1301 Composition/Rhetoric I
  and
  3 CH ENGL 1302 Composition/Rhetoric II
  and
  3 CH ENGL 1311 Sophomore Literature
II. SPEECH COMMUNICATIONS
3 CH SPCH 1311 Fundamentals of Speech Communication

or
SPCH 1315 Public Speaking

III. SOCIAL SCIENCES
12 CH to include:
  6 CH HIST 1301 U.S. History I
  and
  6 CH GOVT 2301 American Government I
  and
  6 CH GOVT 2302 American Government II

IV. MATHEMATICS AND NATURAL/PHYSICAL SCIENCES
3 CH MATH 1332 Contemporary Mathematics (or higher as determined by major field of study)

6-8 CH BIOL 1408 Introduction to Biology I
  BIOL 1409 Introduction to Biology II
  CHEM 1405 Introduction to Chemistry I*
  CHEM 1407 Introduction to Chemistry II
  PHYS 1415 Physical Science I
  PHYS 1417 Physical Science II*
  PHYS 1411 Elementary Astronomy
  GEOL 1401 Earth Science
*Prerequisite: high school algebra or equivalent

V. COMPUTER LITERACY
3 CH COSC 1306 Introduction to Computers

VI. HUMANITIES
3 CH HUMA 1301 Introduction to Humanities

or
PHIL 1301 Introduction to Philosophy

PHIL 2303 Logic

PHIL 2306 Ethics

PHIL 1304 Comparative Religion

VII. BEHAVIORAL SCIENCE
3 CH PSYC 2301 General Psychology

or
SOCI 1301 Introduction to Sociology

VIII. HEALTH, PHYSICAL EDUCATION AND DANCE
2 CH PHED/DANC Any two activity courses

General Education Core 44-46 Credit Hours

Electives (See pages 44-93) 14-16 Credit Hours

Total 60 Credit Hours

1. Students planning to transfer to a four-year institution should check the specific degree plan requirements located in the TransferLab.
2. Higher levels of mathematics and science may be substituted with adviser approval.
3. Students planning to transfer to another college or university should check with their transfer institution before selecting a speech option.
ASSOCIATE OF SCIENCE DEGREE PROGRAMS

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.

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 required. Credit for PHED 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 AA. or AS. degrees. Some colleges and universities require two years of foreign language for the completion of the bachelor’s degree.

GENERAL EDUCATION CORE:
(CH = credit hours)

I. English
   6 CH ENGL 1301 Composition rhetoric I
   and ENGL 1302 Composition/Rhetoric II

II. Speech Communications¹,²
   3 CH SPCH 1311 Fundamentals of Speech Communication
   or SPCH 1315 Public Speaking

III. Social Sciences
   12 CH to include:
   6 CH HIST 1301 U.S. History I
   and HIST 1302 U.S. History II
   6 CH GOVT 2301 American Government I
   and GOVT 2302 American Government II

IV. Mathematics and Natural/Physical Sciences¹,²
   6 CH MATH 1314 College Algebra
   MATH 1316 Trigonometry (or higher as determined by major field of study)
   6-8 CH BIOL 1406 General Biology I
   BIOL 1407 General Biology II
   CHEM 1411 General Chemistry ¹
   CHEM 1412 General Chemistry II
   GEOL 1403 Physical Geology
   GEOL 1404 Historical Geology
   PHYS 1401 General Physics ²
   PHYS 1402 General Physics II
   *Prerequisite: college algebra
   **Prerequisite: high school algebra or equivalent

V. Computer Literacy
   3 CH COSC 1306 Introduction to Computers

VI. Humanities¹
   3 CH HUMA 1301 Introduction to Humanities
   or PHIL 1301 Introduction to Philosophy
   PHIL 2303 Logic
   PHIL 2306 Ethics
   PHIL 1304 Comparative Religion

VII. Behavioral Science
   3 CH PSYC 2301 General Psychology
   or SOCI 1301 Introduction to Sociology

VIII. Health, Physical Education and Dance
   2 CH PHED/DANC Any two activity courses

General Education Core 44-46 Credit Hours
Electives (See pages 44-93) 14-16 Credit Hours
Total 60 Credit Hours

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.
3. Students planning to transfer to another college or university should check with their transfer institution before selecting a speech option.
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 also are 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 workplace 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 four-year institution.

ADVISORY COMMITTEES

Advisory committees are used by the instructional divisions in each technical program area for program development, evaluation, long-range planning, development of employment opportunities for graduates, and other program issues.

These Committees provide an essential link between the educational institution and the business community to ensure that our graduates are adequately prepared for employment.

Members of the advisory committees are selected from within the college community, as well as from related industry, prospective employers, and other knowledgeable community representatives.

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 PHED courses is awarded for military training upon receipt of DD214 (Honorable Discharge).

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<thead>
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<th>GENERAL EDUCATION CORE: (CH = CREDIT HOURS)</th>
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<tbody>
<tr>
<td>I. ENGLISH</td>
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<tr>
<td>3 CH   ENCL 1301 Composition/Rhetoric I</td>
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<tr>
<td>II. SPEECH</td>
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<tr>
<td>3 CH   SPCH 1311 Fundamentals of Speech Communication</td>
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<tr>
<td>or SPCH 1315 Public Speaking</td>
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<tr>
<td>or SPCH 1321 Business and Professional Speaking</td>
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<tr>
<td>III. MATHEMATICS</td>
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<td>3 CH   MATH 1332 Contemporary Mathematics</td>
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<td>(or higher as determined by major field of study)</td>
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<td>IV. COMPUTER LITERACY</td>
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<tr>
<td>3 CH   COSC 1306 Introduction to Computers</td>
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<td>V. ECONOMICS</td>
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<tr>
<td>3 CH   ECON 1301 Introduction to Economics</td>
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<tr>
<td>VI. HUMANITIES</td>
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<tr>
<td>3 CH   HUMA 1301 Introduction to the Humanities</td>
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<td>VII. BEHAVIORAL SCIENCE</td>
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<td>3 CH   PSYC 2302 Applied Psychology</td>
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<tr>
<td>VIII. HEALTH, PHYSICAL EDUCATION AND DANCE</td>
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<tr>
<td>1 CH   PHED/DANC Any activity course</td>
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Students planning to transfer to another college or university should check with their transfer institution before selecting a speech option.

CERTIFICATE PROGRAMS

The certificate programs are designed for re-entry into the job market or the upgrading of skills. Certificates are 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 program requirements follow each related Associate of Applied Science degree plan in the pages that follow.
ACCOUNTING
A TWO-YEAR ASSOCIATE OF ARTS DEGREE PROGRAM

60 CREDIT HOURS REQUIRED TO GRADUATE

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 41 for General Education Core requirements.

II. Recommended Electives (11–13 credit hours)
A. ACCT 2301 Principles of Accounting I .......................... 3
B. ACCT 2302 Principles of Accounting II ......................... 3
C. ACCT 2370 Managerial Accounting .............................. 3
D. ECON 2301 Principles of Macroeconomics .................... 3
E. ECON 2302 Principles of Microeconomics ..................... 3
F. MATH 1325 Calculus for Business and Economics’ ........ 3

III. Electives (3 credit hours)
A. Elective ........................................................................... 3

(‘Math 1324 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, database 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 AAS 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 1301 Composition/Rhetoric I ............................... 3
B. SPCH 1311 Fundamentals of Speech Communication .......... 3
C. MATH 1324 PreCalculus for Business/Economics .......... 3
D. COSC 1306 Introduction to Computers ................................. 3
E. ECON 2301 Principles of Macroeconomics ..................... 3
F. HUMA 2301 Introduction to Humanities ............................ 3
C. PSYC 2302 Applied Psychology ........................................ 3
H. PHED/DANC Any Activity Course ...................................... 1

II. Technical Program Core (12 credit hours)
A. ACCT 2301 Principles of Accounting I .......................... 3
B. ACCT 2302 Principles of Accounting II ......................... 3
C. ACCT 2372 Intermediate Accounting I ......................... 3
D. ACCT 2373 Intermediate Accounting II .......................... 3

III. Major Course (18 credit hours)
A. ACCT 2370 Managerial Accounting ............................... 3
B. ACCT 2375 Auditing ....................................................... 3
C. ACCT 2377 Individual Income Taxation .......................... 3
D. ACCT 2378 Corporate Income Taxation ......................... 3
E. CSCI 2305 Integrated Spreadsheet Applications ................ 3
F. CSCI 2310 Database Applications .................................... 3
APPLIED GRAPHIC DESIGN
TECHNOLOGY (FORMERLY ADVERTISING ART)
A TWO-YEAR ASSOCIATE OF APPLIED SCIENCE DEGREE PROGRAM

IV. Electives

(6 credit hours)

A. ACCT 7300 Cooperative Education I ................................. 3
B. ACCT 2380 Accounting Ethics ........................................ 3
C. BUSI 2301 Business Law ................................................. 3
D. OFAD 1331 Word Processing I ......................................... 3
E. ENGL 2311 Technical Writing* ........................................ 3
F. CSCI 2355 Networking and Telecommunications .................... 3
G. CSCI 2350 Computer Operating Systems ......................... 3

IV. Electives

(3 additional hours)

A. Elective ........................................................................... 3

*Elective must be chosen from discipline outside Accounting

See ENGL 2311 course description.

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APPLIED GRAPHIC DESIGN TECHNOLOGY (FORMERLY ADVERTISING ART)

A TWO-YEAR ASSOCIATE OF APPLIED SCIENCE DEGREE PROGRAM

70 CREDIT HOURS REQUIRED TO GRADUATE

ABOUT OUR PROGRAM

The program in applied graphic design technology 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 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 the country. The high visibility of this center will enhance CCCC graduates' employment possibilities.

Applied graphic design technology offers an Associate of Applied Science degree and certificate programs in Computer Graphics, Digital Photography, Illustration and Production Art. Students receive a strong background in traditional graphics together with state-of-the-art training in electronic publishing, imaging, graphics, 3D modeling animation and interactive multimedia. A student's 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 applied graphic design technology 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
- multimedia director/author
- computer animator
- computer visualization artist
- digital photo retouch 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 AAS program or the director of articulation and transfer programs.

ASSOCIATE OF APPLIED SCIENCE DEGREE REQUIREMENTS:
APPLIED GRAPHIC DESIGN TECHNOLOGY

I. General Education Core

(22 credit hours)

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<th>Course</th>
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<td>B. SPCH 1311</td>
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<td>or SPCH 1315</td>
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<tr>
<td>or SPCH 1321</td>
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<td>D. COSC 1306</td>
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</tr>
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<td>H. PHED/DANC</td>
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II. Technical Program Core

(36 credit hours)

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<td>or AGDT 2325</td>
<td>3</td>
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<tr>
<td>G. AGDT 2365</td>
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### III. AGDT Electives—Select Three Courses

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<td>2D Computer Illustration</td>
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<td>Artist Conceptualization for Interface Design</td>
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### IV. Electives

**A. Elective**  
(Contribution must be chosen from discipline outside Advertising Art)

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<td>AGDT 1315</td>
<td>Computer Typography</td>
<td>3</td>
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<td>AGDT 1320</td>
<td>Introduction to Electronic Imaging</td>
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</tr>
<tr>
<td>AGDT 1325</td>
<td>Visual Communication I</td>
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<tr>
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<td>Visual Communications II</td>
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<tr>
<td>AGDT 1330</td>
<td>Beginning Illustration</td>
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<tr>
<td>AGDT 1331</td>
<td>2D Computer Illustration</td>
<td>3</td>
</tr>
<tr>
<td>AGDT 1335</td>
<td>Introduction to Multimedia Authoring</td>
<td>3</td>
</tr>
<tr>
<td>AGDT 1341</td>
<td>Advanced 2D Computer Animation</td>
<td>3</td>
</tr>
<tr>
<td>AGDT 1365</td>
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<tr>
<td>ARTS 1316</td>
<td>Drawing I</td>
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<td>Composition/Rhetoric I</td>
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<td>O. ELECTIVE Select one:</td>
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<td>Advanced 2D Computer Illustration</td>
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<td>AGDT 1332</td>
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<td>AGDT 1336</td>
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<td>Advanced 3D Computer Animation</td>
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<tr>
<td>AGDT 1360</td>
<td>Introduction to Art Direction for Video</td>
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<td>AGDT 1385</td>
<td>Photographic Science</td>
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<td>AGDT 1390</td>
<td>Special Topics in Applied Graphic Design Technology</td>
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<tr>
<td>AGDT 1391</td>
<td>Special Topics in Applied Graphic Design Technology II</td>
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<tr>
<td>ARTS 1303</td>
<td>Art History I</td>
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<td>ARTS 1304</td>
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<td>ARTS 1317</td>
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<td>ARTS 2311</td>
<td>Design III/Color Theory</td>
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<tr>
<td>ARTS 2323</td>
<td>Life Drawing</td>
<td>3</td>
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</tbody>
</table>
CERTIFICATE REQUIREMENTS: DIGITAL PHOTOGRAPHY
(42 CREDIT HOURS)

A. AGDT 1300 Survey of Applied Graphic Design Technology ........................................ 3
B. AGDT 1310 Introduction to Computer Graphics ......................................................... 3
C. AGDT 1320 Introduction to Electronic Imaging ............................................................ 3
D. AGDT 1326 Value Theory for Digital Media ................................................................. 3
E. AGDT 1330 Professional Practices ................................................................................. 3

ARTS 2356 Photography I .......................................................................................... 3
ARTS 2357 Photography II ......................................................................................... 3
MUSI 2372 Practicum in Electronic Media ................................................................. 3

K. ARTS 2371 Contemporary Studies in the Visual Arts—Photography:
  -Digital Photography I .......................................................................................... 3
  -Digital Photography II ......................................................................................... 3

L. COMM 1316 Photo Illustration .................................................................................. 3
M. ELECTIVES Select One:
AGDT 1315 Computer Typography ............................................................................. 3
AGDT 1326 Visual Communications I ....................................................................... 3
AGDT 1326 Visual Communications II ...................................................................... 3
AGDT 1330 Introduction to Multimedia Authoring .................................................. 3
AGDT 1331 2D Computer Illustration ........................................................................ 3
AGDT 1350 Computer Illustration ............................................................................. 3
AGDT 1351 Interactive Multimedia Authoring ......................................................... 3
AGDT 2330 Illustration ............................................................................................... 3
AGDT 2390 Special Topics in Applied Graphic Design Technology I .......................... 3
AGDT 2391 Special Topics in Applied Graphic Design Technology II ...................... 3
ARTS 2370 Photography—Portrayal .......................................................................... 3
ARTS 2371 Contemporary Studies in the Visual Arts—Photography:
  -Advanced B & W Photography ............................................................................. 3
  -Advanced Color Photography .............................................................................. 3
  -Alternative Processes ............................................................................................ 3
  -Architectural Photography .................................................................................... 3
  -Documentary Photography ................................................................................... 3
  -Fashion Photography ............................................................................................ 3
  -Landscape Photography ........................................................................................ 3
  -Platinum/Palladium Photography .......................................................................... 3
  -Portfolio ................................................................................................................ 3
  -View Camera/Zone System .................................................................................... 3

COMM 1317 News Photography .................................................................................. 3
DRAM 2366 History of Film Making .......................................................................... 3

CERTIFICATE REQUIREMENTS: ILLUSTRATION
(36 CREDIT HOURS)

A. AGDT 1300 Survey of Applied Graphic Design Technology ........................................ 3
B. AGDT 1310 Introduction to Computer Graphics ......................................................... 3
C. AGDT 1320 Visual Communications I ....................................................................... 3
D. AGDT 1330 Beginning Illustration ............................................................................. 3
E. AGDT 1331 2D Computer Illustration ........................................................................ 3
F. AGDT 1331 Life Drawing .......................................................................................... 3
G. AGDT 1330 Illustration ............................................................................................. 3
H. AGDT 1365 Ad Agency ............................................................................................... 3
I. ARTS 1311 Design I .................................................................................................. 3
J. ARTS 1316 Drawing I ................................................................................................. 3
K. ENCL 1301 Composition/Rhetoric I .......................................................................... 3

L. ELECTIVE: Select one:
AGDT 1315 Advanced 2D Computer Illustration ......................................................... 3
AGDT 1340 Storyboard and Script Design .................................................................... 3
ACDT 1345 Artist Conceptualization for Interface Design .......................................... 3
AGDT 1350 Introduction to Multimedia Authoring ..................................................... 3
AGDT 2326 Graphic Design and Production .................................................................. 3
AGDT 2331 Advanced 2D Computer Illustration ......................................................... 3
AGDT 2332 3D Computer Illustration ......................................................................... 3
AGDT 2335 2D Computer Animation .......................................................................... 3
ACDT 2360 Introduction to Art Direction for Video ..................................................... 3
AGDT 2390 Special Topics in Applied Graphic Design Technology I ......................... 3
AGDT 2391 Special Topics in Applied Graphic Design Technology II ....................... 3
ARTS 1303 Art History I ............................................................................................... 3
ARTS 1304 Art History II ............................................................................................. 3
ARTS 2311 Design III/Color Theory ............................................................................. 3
ARTS 2316 Painting ....................................................................................................... 3
ARTS 2323 Life Drawing ............................................................................................... 3
ARTS 2356 Photography I ............................................................................................ 3
ARTS 2366 Watercolor .................................................................................................. 3
MRKT 1320 Fashion Design ......................................................................................... 3
CERTIFICATE REQUIREMENTS: PRODUCTION ART
(39 CREDIT HOURS)

A. ACCT 1300 Survey of Applied Graphic Design 3
   Technology
B. AGDT 1310 Introduction to Computer Graphics 3
C. AGDT 1315 Computer Typography 3
D. AGDT 1325 Visual Communication I 3
E. AGDT 1326 Visual Communications II 3
F. AGDT 1331 2D Computer Illustration 3
or
AGDT 2326 Graphic Design and Production 3
G. AGDT 2325 Electronic Publishing for Graphic Design 3
H. AGDT 2365 Ad Agency 3
I. AGDT 2370 Professional Practices 3
J. ARTS 1311 Design I 3
K. ARTS 1316 Drawing I 3
L. ENGL 1301 Composition/Rhetoric I 3
M. ELECTIVE: Select One:
   AGDT 1320 Introduction to Electronic Imaging 3
   AGDT 1330 Beginning Illustration 3
   AGDT 1340 Storyboard and Script Design 3
   AGDT 1345 Artist Conceptualization for Interface Design 3
   AGDT 1350 Introduction to Multimedia Authoring 3
   AGDT 2330 Illustration 3
   AGDT 2331 Advanced 2D Illustration 3
   AGDT 2332 3D Computer Illustration 3
   AGDT 2335 2D Computer Animation 3
   AGDT 2336 Advanced 2D Computer Animation 3
   AGDT 2340 3D Computer Animation 3
   AGDT 2360 Introduction to Art Direction for Video 3
   AGDT 2390 Special Topics in Applied Graphic Design Technology 1 3
   AGDT 2391 Special Topics in Applied Graphic Design Technology II 3
   ARTS 1303 Art History I 3
   ARTS 1304 Art History II 3
   ARTS 1317 Drawing II 3
   ARTS 2311 Design III/Color Theory 3
   ARTS 2356 Photography I 3
   ARTS 2357 Photography II 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: ART
I. General Education Core
   See page 41 for General Education Core requirements.
II. Recommended Electives  (11-13 credit hours)
   A. ARTS 1301 Art Appreciation 3
   B. ARTS 1303 Art History I 3
   C. ARTS 1304 Art History II 3
   D. ARTS 1311 Design I 3
   E. ARTS 1312 Design II 3
   F. ARTS 1316 Drawing I 3
   G. ARTS 1317 Drawing II 3
   H. ARTS 1325 Art for Elementary Educators 3
   I. ARTS 1370 Problems in Contemporary Art 3
   J. ARTS 2311 Design III—Color Theory 3
   K. ARTS 2316 Painting I 3
   L. ARTS 2317 Painting II 3
   M. ARTS 2323 Life Drawing 3
   N. ARTS 2326 Sculpture I 3
   O. ARTS 2327 Sculpture II 3
   P. ARTS 2333 Printmaking I 3
   Q. ARTS 2334 Printmaking II 3
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 postgraduate degree.

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

**ASSOCIATE OF SCIENCE DEGREE REQUIREMENTS: BIOLOGY**

**I. General Education Core**

See page 42 for General Education Core requirements.

**II. Recommended Electives**

(11–13 credit hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>A. BIOL 1322</td>
<td>General Nutrition</td>
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<tr>
<td>B. BIOL 1411</td>
<td>General Botany</td>
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<tr>
<td>C. BIOL 1470</td>
<td>Marine Biology</td>
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<td>D. BIOL 2401</td>
<td>Anatomy and Physiology I</td>
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<td>E. BIOL 2402</td>
<td>Anatomy and Physiology II</td>
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<tr>
<td>F. BIOL 2416</td>
<td>Genetics</td>
<td>4</td>
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<tr>
<td>G. BIOL 2418</td>
<td>Invertebrate Zoology</td>
<td>4</td>
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<td>H. BIOL 2420</td>
<td>Microbiology</td>
<td>4</td>
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<tr>
<td>I. BIOL 2428</td>
<td>Vertebrate Zoology</td>
<td>4</td>
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<td>J. BIOL 2470</td>
<td>Human Genetics</td>
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<td>N. CHEM 1412</td>
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<td>Organic Chemistry I</td>
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<td>P. CHEM 2425</td>
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<td>Medical Terminology</td>
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<td>R. MATH 1342</td>
<td>Statistics</td>
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<td>U. PHYS 2425</td>
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<td>V. PHYS 2426</td>
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</table>

**III. Electives**

(3 credit hours minimum)

A. Elective | 3 |

(Selective must be chosen from discipline outside Biology)

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**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 fouryear 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 41 for General Education Core requirements.

II. **Recommended Electives**

(11–13 credit hours)

- A. ACCT 2301 Principles of Accounting I
- B. ACCT 2302 Principles of Accounting II
- C. CSCI 1320 BASIC Programming
- D. ECON 2301 Principles of Macroeconomics
- E. ECON 2302 Principles of Microeconomics
- F. ENGL 2372 Forms of Literature II
- G. MATH 1325 Calculus for Business and Economics
- H. MATH 1342 Statistics
- I. PSYC 2301 General Psychology

III. **Electives**

(3 credit hours)

- A. Elective

(Elective must be chosen from discipline outside Business)

*Math 1324 recommended in general education core

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**CHEMISTRY**

A TWO-YEAR ASSOCIATE OF SCIENCE DEGREE PROGRAM

60 CREDIT HOURS REQUIRED TO GRADUATE

**ABOUT 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 and current scientific literature 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**

(11–13 credit hours)

- A. CHEM 1170 Biochemistry
- B. CHEM 2423 Organic Chemistry I
- C. CHEM 2425 Organic Chemistry II
- D. MATH 2415 Calculus III
- E. MATH 2320 Differential Equations
- F. PHYS 2425 College Physics I
- G. PHYS 2426 College Physics II

III. **Electives**

(3 credit hours minimum)

- A. Elective

(Elective must be chosen from discipline outside Chemistry)

---

**CHILD DEVELOPMENT**

**EARLY CHILDHOOD ADMINISTRATOR**

A TWO-YEAR ASSOCIATE OF APPLIED SCIENCE DEGREE PROGRAM

67–68 CREDIT HOURS REQUIRED TO GRADUATE

**ABOUT OUR PROGRAM**

The degree program in Child Development with an Early Child. hood 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 in 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 in Child Development 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: EARLY CHILDHOOD ADMINISTRATOR

#### I. General Education Core

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<tr>
<td>A. ENGL 1301</td>
<td><strong>Composition/Rhetoric I</strong> 3</td>
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<td>B. SPCH 1311</td>
<td><strong>Fundamentals of Speech Communication</strong> 3</td>
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<tr>
<td>C. MATH 1332</td>
<td><strong>Contemporary Mathematics</strong> 3</td>
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<td>D. COSC 1306</td>
<td><strong>Introduction to Computers</strong> 3</td>
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<td>E. ECON 1301</td>
<td><strong>Introduction to Economics</strong> 3</td>
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<tr>
<td>or ECON 2301</td>
<td><strong>Principles of Macroeconomics</strong> 3</td>
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<tr>
<td>F. HUMA 1301</td>
<td><strong>Introduction to Humanities</strong> 3</td>
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<td>G. PSYC 2301</td>
<td><strong>General Psychology</strong> 3</td>
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<td>H. PHED/DANC</td>
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#### II. Technical Program Core

<table>
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<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. CHDV 1300</td>
<td><strong>Early Child Development (0-3 yrs)</strong> 3</td>
</tr>
<tr>
<td>B. CHDV 1301</td>
<td><strong>Early Child Development (3-5 yrs)</strong> 3</td>
</tr>
<tr>
<td>C. CHDV 1325</td>
<td><strong>Early Childhood Programs and Services</strong> 3</td>
</tr>
<tr>
<td>D. CHDV 1310</td>
<td><strong>Nutrition, Health and Safety</strong> 3</td>
</tr>
<tr>
<td>E. CHDV 2310</td>
<td><strong>Practicum A</strong> 3</td>
</tr>
<tr>
<td>F. CHDV 1305</td>
<td><strong>Early Childhood Fundamentals</strong> 3</td>
</tr>
<tr>
<td>G. CHDV 1315</td>
<td><strong>Child Guidance</strong> 3</td>
</tr>
<tr>
<td>H. CHDV 1320</td>
<td><strong>Child Abuse Prevention</strong> 3</td>
</tr>
<tr>
<td>I. CHDV 2305</td>
<td><strong>Parents and the Caregiver</strong> 3</td>
</tr>
</tbody>
</table>

#### III. Major Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>A. CHDV 2315</td>
<td><strong>Administration of Early Childhood Programs</strong> 3</td>
</tr>
<tr>
<td>B. CHDV 2316</td>
<td><strong>Organization and Management of Early Childhood Programs</strong> 3</td>
</tr>
<tr>
<td>C. CHDV 2311</td>
<td><strong>Practicum B</strong> 3</td>
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<tr>
<td>D. SBMT 1300</td>
<td><strong>Small Business Management</strong> 3</td>
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#### IV. Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>A. CHDV 2400</td>
<td><strong>Material and Activities Development I</strong> 4</td>
</tr>
<tr>
<td>B. CHDV 2401</td>
<td><strong>Material and Activities Development II</strong> 4</td>
</tr>
<tr>
<td>C. CHDV 2300</td>
<td><strong>Infant and Toddler Material and Activities Development</strong> 3</td>
</tr>
<tr>
<td>D. CHDV 1302</td>
<td><strong>Child Development (5-12 yrs)</strong> 3</td>
</tr>
<tr>
<td>E. CHDV 2398</td>
<td><strong>Internship</strong> 3</td>
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<tr>
<td>F. CHDV 7300</td>
<td><strong>Cooperative Education</strong> 3</td>
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<td>G. CHDV 2100</td>
<td><strong>Selected Topics in Child Development</strong> 3</td>
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#### IV. Electives

<table>
<thead>
<tr>
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<th>Credit Hours</th>
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<tr>
<td>A. Elective</td>
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*Elective must be chosen from discipline outside Child Development*

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### CHILD DEVELOPMENT

#### EARLY CHILDHOOD EDUCATOR

A TWO-YEAR ASSOCIATE OF APPLIED SCIENCE DEGREE PROGRAM

66 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 multicultural, 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 Denlon 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 AAS, 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 Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>ENGL 1301</td>
<td>Composition/Inferior in English</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 1311</td>
<td>Fundamentals of Speech Communication</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1332</td>
<td>Contemporary Mathematics</td>
<td>3</td>
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<tr>
<td>COSC 1306</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>ECON 1301</td>
<td>Introduction to Economics</td>
<td>3</td>
</tr>
<tr>
<td>or ECON 2301</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>HUMA 1301</td>
<td>Introduction to Humanities</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 2301</td>
<td>General Psychology</td>
<td>3</td>
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<tr>
<td>or PSYC 2302</td>
<td>Applied Psychology</td>
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<tr>
<td>PHED/DANC</td>
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### II. Technical Program Core

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>CHDV 1300</td>
<td>Early Child Dev. (0-3 yrs)</td>
<td>3</td>
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<tr>
<td>CHDV 1301</td>
<td>Early Child Dev. (3-5 yrs)</td>
<td>3</td>
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<tr>
<td>CHDV 1325</td>
<td>Early Childhood Programs and Services</td>
<td>3</td>
</tr>
<tr>
<td>CHDV 1310</td>
<td>Nutrition, Health, and Safety</td>
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</tr>
<tr>
<td>CHDV 2310</td>
<td>Practicum A</td>
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<tr>
<td>CHDV 1305</td>
<td>Early Childhood Fundamentals</td>
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<tr>
<td>CHDV 1315</td>
<td>Child Guidance</td>
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</tr>
<tr>
<td>CHDV 1320</td>
<td>Child Abuse Prevention</td>
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<td>CHDV 2305</td>
<td>Parents and the Caregiver</td>
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### III. Major Courses

<table>
<thead>
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<th>Course Title</th>
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<tbody>
<tr>
<td>CHDV 2400</td>
<td>Material and Activities Development</td>
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<tr>
<td>CHDV 2401</td>
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<td>CHDV 2311</td>
<td>Practicum B</td>
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### IV. Electives

<table>
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<tr>
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<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>CHDV 2300</td>
<td>Infant and Toddler Materials and Activity Development</td>
<td>3</td>
</tr>
<tr>
<td>CHDV 1302</td>
<td>Child Development (5-12 yrs)</td>
<td>3</td>
</tr>
<tr>
<td>CHDV 2398</td>
<td>Internship</td>
<td>3</td>
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<tr>
<td>CHDV 7300</td>
<td>Cooperative Education</td>
<td>3</td>
</tr>
<tr>
<td>CHDV 2315</td>
<td>Administration of Early Childhood Programs</td>
<td>3</td>
</tr>
<tr>
<td>CHDV 2316</td>
<td>Organization and Management of Early Childhood Programs</td>
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### IV. Electives

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>Elective</td>
<td>Elective</td>
<td>3</td>
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</tbody>
</table>

*(Elective must be chosen from discipline outside Child Development)*

**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**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1301</td>
<td>Composition/Inferior in English</td>
<td>3</td>
</tr>
</tbody>
</table>
II. Technical Program Core

(18 credit hours)
A. CHDV 1300 Early Child Development (0-3) 3
or CHDV 1301 Early Child Development (3-5) 3
B. CHDV 1305 Early Childhood Fundamentals 3
C. CHDV 1315 Child Guidance 3
D. CHDV 1310 Nutrition, Health and Safety 3
E. CHDV 2305 Parents and The Caregiver 3
F. CHDV 2310 Practicum A 3

11. Major Courses

(6-8 credit hours)

Early Childhood Administrator Majors
A. CHDV 2315 Administration of Early Childhood Programs 3
B. CHDV 2316 Organization and Management of Early Childhood Programs 3

Early Childhood Educator Majors
A. CHDV 2400 Material and Activities Development I 4
B. CHDV 2401 Material and Activities Development II 4

---

COMPUTER AIDED DRAFTING AND DESIGN

A TWOYEAR ASSOCIATE OF APPLIED SCIENCE DEGREE PROGRAM

63-64 CREDIT HOURS REQUIRED TO GRADUATE

ABOUT OUR PROGRAM

High-tech industries are constantly creating new career 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 intensive computer-aided design (CAD) hands-on training program are taught the skills the designer, draftsman, architect, or engineer needs for successful CAD operations.

Students planning to transfer to a four-year institution should check with an academic 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 AAS program or the director of articulation and transfer programs.

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

1. General Education Core

(22 credit hours)
A. ENGL 1301 Composition/Rhetoric I 3
B. SPCH 1311 Fundamentals of Speech Communication 3
C. MATH 1314 College Algebra 3
D. CADD 1301 Computer Graphics Systems 3
E. ECON 1301 Introduction to Economics 3
F. HUMA 1301 Introduction to Humanities 3
G. PSYC 2302 Applied Psychology 3
H. PHED/DANC Any Activity Course 3

II. Technical Program Core

(15 credit hours)
A. ELET 1440 AC/DC Fundamentals 4
B. MATH 1316 Trigonometry 3
C. PHYS 1401 General Physics I 4
D. PHYS 1402 General Physics II 4

11. Major Courses

(18 credit hours)
A. CADD 1302 Technical Graphics I 3
B. CADD 1303 Technical Graphics II 3
C. CADD 1304 Computer Aided Drafting 3
D. CADD 2303 Advanced Computer Aided Drafting 3
E. CADD 2305 Electronic PCB Drafting 3
F. CADD 2307 Manufacturing Processes 3

IV. Electives

(5-6 credit hours)
A. CADD 2301 Technical Illustration 3
B. CADD 2302 Computer Aided Design 3
C. CADD 2306 Descriptive Geometry 3
D. CADD 2308 NC Programming 3
E. CADD 2309 Computer Integrated Manufacturing 3
F. CADD 2310 Printed Circuit Design 3
G. CADD 2311 Advanced Printed Circuit Design 3
H. CADD 2315 Applications in PCB Design 3
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. Core (22 credit hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. ENGL 1301</td>
<td>Composition/Rhetoric I</td>
<td>3</td>
</tr>
<tr>
<td>B. SPCH 1311</td>
<td>Fundamentals of Speech Communication</td>
<td>3</td>
</tr>
<tr>
<td>C. MATH 1314</td>
<td>College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>D. CADD 1301</td>
<td>Computer Graphics Systems</td>
<td>3</td>
</tr>
<tr>
<td>E. ECON 1301</td>
<td>Introduction to Economics</td>
<td>3</td>
</tr>
<tr>
<td>F. HUMA 1301</td>
<td>Introduction to Humanities</td>
<td>3</td>
</tr>
<tr>
<td>G. PSYC 2302</td>
<td>Applied Psychology</td>
<td>3</td>
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<tr>
<td>H. PHED/DANC</td>
<td>Any Activity Course</td>
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II. Technical Program Core (18 credit hours)

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>A. ELAT 2335</td>
<td>Digital Control Applications</td>
<td>3</td>
</tr>
<tr>
<td>B. ELAT 2425</td>
<td>Active Devices</td>
<td>4</td>
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<tr>
<td>C. ELET 1400</td>
<td>Circuit Analysis I</td>
<td>4</td>
</tr>
<tr>
<td>D. ELET 1401</td>
<td>Circuit Analysis II</td>
<td>4</td>
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<tr>
<td>E. MATH 1316</td>
<td>Trigonometry</td>
<td>3</td>
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III. Major Courses (21 credit hours)

<table>
<thead>
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<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
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<td>3</td>
</tr>
<tr>
<td>B. CADD 1303</td>
<td>Technical Graphics II</td>
<td>3</td>
</tr>
<tr>
<td>C. CADD 1304</td>
<td>Computer Aided Drafting</td>
<td>3</td>
</tr>
<tr>
<td>D. CADD 2303</td>
<td>Advanced Computer Aided Drafting</td>
<td>3</td>
</tr>
<tr>
<td>E. CADD 2305</td>
<td>Electronic PCB Drafting</td>
<td>3</td>
</tr>
<tr>
<td>F. CADD 2310</td>
<td>Printed Circuit Design</td>
<td>3</td>
</tr>
<tr>
<td>G. CADD 2311</td>
<td>Advanced Printed Circuit Design</td>
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IV. Electives (3 credit hours)

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<th>Course Title</th>
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<tbody>
<tr>
<td>A. CADD 2301</td>
<td>Technical Illustration</td>
<td>3</td>
</tr>
<tr>
<td>B. CADD 2302</td>
<td>Computer Aided Design</td>
<td>3</td>
</tr>
<tr>
<td>C. CADD 2306</td>
<td>Descriptive Geometry</td>
<td>3</td>
</tr>
<tr>
<td>D. CADD 2307</td>
<td>Manufacturing Processes</td>
<td>3</td>
</tr>
<tr>
<td>E. CADD 2308</td>
<td>NC Programming</td>
<td>3</td>
</tr>
<tr>
<td>F. CADD 2309</td>
<td>Computer Integrated Manufacturing</td>
<td>3</td>
</tr>
<tr>
<td>G. CADD 2315</td>
<td>Applications in PCB Design</td>
<td>3</td>
</tr>
<tr>
<td>H. CADD 7300</td>
<td>Cooperative Education I</td>
<td>3</td>
</tr>
<tr>
<td>I. CADD 7305</td>
<td>Cooperative Education II</td>
<td>3</td>
</tr>
<tr>
<td>J. CADD 7310</td>
<td>Cooperative Education III</td>
<td>3</td>
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<tr>
<td>K. COSC 2390</td>
<td>Advanced Topics—Autolisp Programming</td>
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</table>
A. Elective .............................................................. 3

(Elective must be chosen from discipline outside Computer Aided Drafting and Design)

V. Electives
(3 credit hours)

A. Elective .............................................................. 3

(50 credit hours)

60 CREDIT HOURS REQUIRED TO GRADUATE

MANUFACTURING OPTION

A TWO-YEAR ASSOCIATE OF APPLIED SCIENCE DEGREE PROGRAM

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 AAS program or the director of articulation and transfer programs.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>ENGL 1301</td>
<td>Composition/Rhetoric I</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 1311</td>
<td>Fundamentals of Speech Communication</td>
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</tr>
<tr>
<td>MATH 1314</td>
<td>College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>CADD 1301</td>
<td>Computer Graphics Systems</td>
<td>3</td>
</tr>
<tr>
<td>ECON 1301</td>
<td>Introduction to Economics</td>
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</tr>
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<td>HUMA 1301</td>
<td>Introduction to Humanities</td>
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<td>PSYC 2302</td>
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<td>PHED/DANC</td>
<td>Any Activity Course</td>
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II. Technical Program Core
(15 credit hours)

<table>
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<tr>
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<th>Course Title</th>
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<tr>
<td>PHYS 1401</td>
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</tr>
<tr>
<td>PHYS 1402</td>
<td>General Physics II</td>
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</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>CADD 1302</td>
<td>Technical Graphics I</td>
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<td>CADD 1303</td>
<td>Technical Graphics II</td>
<td>3</td>
</tr>
<tr>
<td>CADD 1304</td>
<td>Computer Aided Drafting</td>
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<tr>
<td>D. CADD 2303</td>
<td>Advanced Computer Aided Drafting</td>
<td>3</td>
</tr>
<tr>
<td>E. CADD 2307</td>
<td>Manufacturing Processes</td>
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</tr>
<tr>
<td>F. CADD 2308</td>
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<td>3</td>
</tr>
<tr>
<td>G. CADD 2309</td>
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IV. Electives
(9 credit hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CADD 2301</td>
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<td>CADD 2302</td>
<td>Computer Aided Design</td>
<td>3</td>
</tr>
<tr>
<td>CADD 2305</td>
<td>Electronic PCB Drafting</td>
<td>3</td>
</tr>
<tr>
<td>D. CADD 2306</td>
<td>Descriptive Geometry</td>
<td>3</td>
</tr>
<tr>
<td>E. CADD 2310</td>
<td>Printed Circuit Design</td>
<td>3</td>
</tr>
<tr>
<td>F. CADD 2311</td>
<td>Adv. Printed Circuit Design</td>
<td>3</td>
</tr>
<tr>
<td>G. CADD 2315</td>
<td>Appl. in PCB Design</td>
<td>3</td>
</tr>
<tr>
<td>H. CADD 7300</td>
<td>Cooperative Education I</td>
<td>3</td>
</tr>
<tr>
<td>I. CADD 7305</td>
<td>Cooperative Education II</td>
<td>3</td>
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<tr>
<td>J. CADD 7310</td>
<td>Cooperative Education III</td>
<td>3</td>
</tr>
<tr>
<td>K. COSC 2390</td>
<td>Advanced Topics—AutoLisp Programming</td>
<td>3</td>
</tr>
</tbody>
</table>

V. Electives
(3 credit hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CADD 2301</td>
<td>Technical Illustration</td>
<td>3</td>
</tr>
<tr>
<td>CADD 2302</td>
<td>Computer Aided Design</td>
<td>3</td>
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<tr>
<td>CADD 2305</td>
<td>Electronic PCB Drafting</td>
<td>3</td>
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<tr>
<td>D. CADD 2306</td>
<td>Descriptive Geometry</td>
<td>3</td>
</tr>
<tr>
<td>E. CADD 2310</td>
<td>Printed Circuit Design</td>
<td>3</td>
</tr>
<tr>
<td>F. CADD 2311</td>
<td>Adv. Printed Circuit Design</td>
<td>3</td>
</tr>
<tr>
<td>G. CADD 2315</td>
<td>Appl. in PCB Design</td>
<td>3</td>
</tr>
<tr>
<td>H. CADD 7300</td>
<td>Cooperative Education I</td>
<td>3</td>
</tr>
<tr>
<td>I. CADD 7305</td>
<td>Cooperative Education II</td>
<td>3</td>
</tr>
<tr>
<td>J. CADD 7310</td>
<td>Cooperative Education III</td>
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</tr>
<tr>
<td>K. COSC 2390</td>
<td>Advanced Topics—AutoLisp Programming</td>
<td>3</td>
</tr>
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</table>
**Computer Aided Drafting and 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 AAS program or the director of articulation and transfer programs.

**Associate of Applied Science Degree Requirements: Computer Aided Drafting and Design—Commercial Interior Design Option**

1. **General Education Core**

   (22 credit hours)
   
   A. **ENGL 1301** Composition/Rhetoric I .................................. 3
   B. **SPCH 1311** Fundamentals of Speech Communication ................. 3
   C. **MATH 1332** Contemporary Mathematics .................................. 3
   D. **COSC 1306** Introduction to Computers .................................. 3
   E. **ECON 1301** Introduction to Economics .................................. 3
   F. **HUMA 1301** Introduction to Humanities .................................. 3
   G. **PSYC 2302** Applied Psychology ........................................... 3
   or **PSYC 2301** General Psychology ........................................... 3
   H. **PHED/DANC 1301** Any Activity Course ................................ 1

2. **Technical Program Core**

   (12 credit hours)
   
   A. **BUSI 1301** Introduction to Business ** ................................. 3

3. **Electives**

   (8–9 credit hours)
   
   A. **ARTS 2366** Watercolor I ................................................... 3
   B. **ARTS 1303** Art History I .................................................. 3
   C. **ARTS 1304** Art History II .................................................. 3
   D. **CADD 2301** Technical Illustration ...................................... 3
   E. **CADD 2302** Advanced Computer Aided Design ......................
   F. **CADD 7300** Cooperative Education I .................................. 3
   G. **CADD 7305** Cooperative Education II ................................. 3
   H. **CADD 7310** Cooperative Education III ................................ 3
   I. **COSC 2390** Advanced Topics—Autolisp Programming ............
   J. **HORT 1315** Interior Plants ............................................... 3
   K. **HORT 2300** Introduction Landscape Design ...........................
   L. **HORT 2420** Home Landscape Design ...................................
   M. **MRKT 1310** Principles of Advertising .................................. 3
   N. **MRKT 1395** Principles of Marketing .................................... 3
   O. **SBMT 1310** Principles of Retailing .................................... 3

*SPCH 1321 may be substituted for SPCH 1311

**SBMT 1300 may be substituted for BUSI 1301**

V. **Electives**

   (3 credit hours)
   
   A. Elective .................................................................................. 3

(Elective must be chosen from discipline outside Computer Aided Drafting and Design)
**Computer Aided Drafting and Design**

**Certificate Programs**

*(30 – 39 credit hours)*

**Certificate Requirements: Drafting and Computer Aided Design**

*(30 credit hours)*

A. CADD 1301 Computer Graphics Systems  3
B. CADD 1302 Technical Graphics I  3
C. CADD 1303 Technical Graphics II  3
D. CADD 1304 Computer Aided Drafting  3
E. CADD 2301 Technical Illustration  3
F. CADD 2302 Computer Aided Design  3
G. CADD 2303 Adv. Computer Aided Drafting  3
H. CADD 2305 Electronic PCB Drafting  3
I. CADD 2307 Manufacturing Processes  3
J. COSC 2390 Advanced Topics-Autolisp Programming  3

**Certificate Requirements: Electronic Design**

*(39 credit hours)*

A. CADD 1301 Computer Graphics Systems  3
B. CADD 1302 Technical Graphics I  3
C. CADD 1303 Technical Graphics II  3
D. CADD 1304 Computer Aided Drafting  3
E. CADD 2303 Advanced Computer Aided Drafting  3
F. CADD 2305 Electronic PCB Drafting  3
G. CADD 2310 Printed Circuit Design  3
H. CADD 2311 Advanced Printed Circuit Design  3
I. ELAT 2335 Digital Control Applications  3
J. ELAT 2425 Active Devices  4
K. ELET 1400 Circuit Analysis I  4
L. ELET 1401 Circuit Analysis II  4

**Certificate Requirements: Commercial Interior Design**

*(30 credit hours)*

A. ARTS 1311 Design I  3
B. ARTS 1316 Drawing I  3
C. ARTS 2311 Design II  3
D. CADD 1301 Introduction to Computer Graphics  3
E. CADD 1302 Technical Graphics I  3
F. CADD 1304 Computer Aided Drafting  3
G. CADD 2302 Computer Aided Design  3
H. INTD 1301 Applied Interior Design I  3
I. INTD 2302 Applied Interior Design II  3
J. INTD 2303 Applied Interior Design III  3

**Certificate Requirements: Manufacturing Design**

*(30 credit hours)*

A. CADD 1301 Computer Graphics System  3
B. CADD 1302 Technical Graphics I  3
C. CADD 1303 Technical Graphics II  3
D. CADD 1304 Computer Aided Drafting  3
E. CADD 2302 Computer Aided Design  3
F. CADD 2303 Advanced Computer Aided Drafting  3
G. CADD 2307 Manufacturing Processes  3
H. CADD 2308 NC Programming  3
I. CADD 2309 Computer Integrated Manufacturing  3
J. COSC 2390 Advanced Topics-Autolisp Programming  3

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

- business programmer—produce new business programs and modify existing ones
- computer operator—control and monitor mainframe computer functions
- database manager—design and manage business data systems
- production analyst—maintain computer security, computer libraries, and business forms and equipment.

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: COMPUTER INFORMATION SYSTEMS/BUSINESS PROGRAMMING

I. General Education Core

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>A. ENGL 1301</td>
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<tr>
<td>B. SPCH 1311</td>
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<tr>
<td>C. MATH 1324</td>
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<tr>
<td>D. COSC 1306</td>
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<tr>
<td>E. ECON 2301</td>
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<td>F. HUMA 1301</td>
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<td>G. PSYC 2301</td>
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<td>or PSYC 2302</td>
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<tr>
<td>H. PHED/DANC</td>
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</table>

II. Technical Program Core

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
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<tr>
<td>B. CSCI 2330</td>
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<td>C. CSCI 2340</td>
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<tr>
<td>D. CSCI 2350</td>
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<tr>
<td>E. CSCI 2355</td>
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III. Major Courses  

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>A. ACCT 2301</td>
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<tr>
<td>B. ACCT 2302</td>
<td>3</td>
</tr>
<tr>
<td>C. CSCI 1330</td>
<td>3</td>
</tr>
<tr>
<td>D. CSCI 2331</td>
<td>3</td>
</tr>
<tr>
<td>E. CSCI 2345</td>
<td>3</td>
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</tbody>
</table>

F. ENGL 2311 Technical Writing * 3
G. MATH 1325 Calculus for Business/Economics 3

*See ENGL 2311 course description.

IV. Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>A. BUSI 1301</td>
<td>3</td>
</tr>
<tr>
<td>B. COSC 1318</td>
<td>3</td>
</tr>
<tr>
<td>C. COSC 2318</td>
<td>3</td>
</tr>
<tr>
<td>D. CADD 1301</td>
<td>3</td>
</tr>
<tr>
<td>E. CSCI 1305</td>
<td>3</td>
</tr>
<tr>
<td>F. CSCI 2335</td>
<td>3</td>
</tr>
<tr>
<td>G. CSCI 2305</td>
<td>3</td>
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<td>H. CSCI 2315</td>
<td>3</td>
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<tr>
<td>I. CSCI 2310</td>
<td>3</td>
</tr>
<tr>
<td>J. CSCI 2390</td>
<td>3</td>
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<tr>
<td>K. CSCI 2395</td>
<td>3</td>
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<tr>
<td>L. CSCI 7300</td>
<td>3</td>
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<tr>
<td>M. CSCI 7305</td>
<td>3</td>
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V. Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Elective</td>
<td>3</td>
</tr>
</tbody>
</table>

(Elective must be chosen from discipline outside Computer Information Systems)

COMPUTER INFORMATION 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 everchanging 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 fouryear institution should check with an academic adviser.

**CAREER OPPORTUNITIES**

Students in the Computer Systems option program will receive basic instruction and preemployment 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 AAS program or the director of articulation and transfer programs.

**ASSOCIATE OF APPLIED SCIENCE DEGREE REQUIREMENTS: COMPUTER INFORMATION SYSTEMS/COMPUTER SYSTEMS**

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>A. ENGL 1301</td>
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</tr>
<tr>
<td>B. SPCH 1311</td>
<td>Fundamentals of Speech Communication</td>
<td>3</td>
</tr>
<tr>
<td>C. MATH 1324</td>
<td>Pre-Calculus for Business/Economics</td>
<td>3</td>
</tr>
<tr>
<td>D. COSC 1306</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>E. ECON 2301</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>F. HUMA 1301</td>
<td>Introduction to Humanities</td>
<td>3</td>
</tr>
<tr>
<td>G. PSYC 2301</td>
<td>General Psychology</td>
<td>3</td>
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<tr>
<td>or PSYC 2302</td>
<td>Applied Psychology</td>
<td>3</td>
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<tr>
<td>H. PHED/DA NC</td>
<td>Any Activity Course</td>
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</table>

**II. Technical Program Core**  
(15 credit hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>A. CSCI 1320</td>
<td>BASIC Programming</td>
<td>3</td>
</tr>
<tr>
<td>B. CSCI 2305</td>
<td>Integrated Spreadsheet Applications</td>
<td>3</td>
</tr>
<tr>
<td>C. CSCI 2310</td>
<td>Database Applications</td>
<td>3</td>
</tr>
<tr>
<td>D. CSCI 2345</td>
<td>Information Systems Management</td>
<td>3</td>
</tr>
<tr>
<td>E. OFAD 1331</td>
<td>Word Processing I</td>
<td>3</td>
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</table>

**III. Electives**  
(24 credit hours)

<table>
<thead>
<tr>
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<tbody>
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<td>A. ACCT 1370</td>
<td>Elementary Accounting</td>
<td>3</td>
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<tr>
<td>B. ACCT 2301</td>
<td>Principles of Accounting 1</td>
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</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>C. BUSI 2372</td>
<td>Organizational Behavior</td>
<td>3</td>
</tr>
<tr>
<td>D. BUSI 1370</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>E. CADD 1301</td>
<td>Computer Graphics Systems</td>
<td>3</td>
</tr>
<tr>
<td>F. COSC 1318</td>
<td>Programming Concepts I</td>
<td>3</td>
</tr>
<tr>
<td>G. COSC 2318</td>
<td>Programming Concepts II</td>
<td>3</td>
</tr>
<tr>
<td>H. CSCI 1305</td>
<td>Microcomputer Concepts</td>
<td>3</td>
</tr>
<tr>
<td>I. CSCI 1330</td>
<td>RPG Programming</td>
<td>3</td>
</tr>
<tr>
<td>J. CSCI 2315</td>
<td>Desktop Publishing</td>
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<tr>
<td>K. CSCI 2330</td>
<td>COBOL I</td>
<td>3</td>
</tr>
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<td>L. CSCI 2331</td>
<td>COBOL II</td>
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</tr>
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<td>M. CSCI 2335</td>
<td>Data Structures for Business</td>
<td>3</td>
</tr>
<tr>
<td>N. CSCI 2340</td>
<td>Systems Analysis and Design</td>
<td>3</td>
</tr>
<tr>
<td>O. CSCI 2355</td>
<td>Networking and Telecommunications</td>
<td>3</td>
</tr>
<tr>
<td>P. CSCI 2350</td>
<td>Computer Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>Q. CSCI 2390</td>
<td>Special Topics in CIS</td>
<td>3</td>
</tr>
<tr>
<td>R. CSCI 7300</td>
<td>Cooperative Education I</td>
<td>3</td>
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<tr>
<td>S. CSCI 7305</td>
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<td>3</td>
</tr>
<tr>
<td>T. ENGL 2311</td>
<td>Technical Writing</td>
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</table>

**IV. Electives**  
(3 credit hours)

A. Elective  
(1 credit)

(=See ENGL 2311 course description.

**COMPUTER INFORMATION SYSTEMS MICROCOMPUTER APPLICATIONS**

**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
• PC support specialist—business problem solving using a variety of micro application packages
• micro programmer—design new programs and modify existing programs using microcomputer business languages
• PC service representative—support networking and the micro telecommunications industry

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 program coordinator of the AAS (Elective) 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 1301 Composition/Rhetoric 1 3
   B. SPCH 1311 Fundamentals of Speech Communication 3
   C. MATH 1324 PreCalculus for Business/Economics 3
   D. COSC 1306 Introduction to Computers 3
   E. ECON 2301 Principles of Macroeconomics 3
   F. HUMA 1301 Introduction to Humanities 3
   G. PSYC 2301 General Psychology 3
      or PSYC 2302 Applied Psychology 3
   H. PHED/DANC Any Activity Course 1

II. Technical Program Core
    (15 credit hours)
   A. CSCI 1305 Microcomputer Concepts 3
   B. CSCI 1320 BASIC Programming 3
   C. CSCI 2345 Information Systems Management 3
   D. CSCI 2350 Computer Operating Systems 3
   E. CSCI 2355 Networking and Telecommunications 3

III. Major Courses
    (21 credit hours)
   A. ACCT 2301 Principles of Accounting I 3
   B. BUSI 1301 Introduction to Business 3
   C. CADD 1301 Computer Graphics Systems 3
   D. CSCI 2305 Integrated Spreadsheet Applications 3
   E. CSCI 2310 Database Applications 3
   F. CSCI 2315 Desktop Publishing 3
   C. OFAD 1331 Word Processing I 3

IV. Electives
    (3 credit hours)
   A. BUSI 1370 Principles of Management 3
   B. BUSI 2372 Organizational Behavior 3
   C. CSCI 1330 RPG Programming 3
   D. CSCI 2330 COBOL I 3
   E. CSCI 2331 COBOL II 3
   F. CSCI 2335 Data Structures for Business 3
   G. CSCI 2340 Systems Analysis and Design 3
   H. CSCI 2390 Special Topics in CIS I 3
   I. CSCI 2395 Special Topics in CIS II 3
   J. CSCI 7300 Cooperative Education I 3
   K. CSCI 7305 Cooperative Education II 3

V. Electives
    (3 credit hours)
   A. Elective 3
      (Elective must be chosen from discipline outside Computer Information Systems)

COMPUTER INFORMATION SYSTEMS
CERTIFICATE PROGRAMS

(12–24 CREDIT HOURS)

There are several certificate options available. If you have any questions or need detailed information, please contact the program coordinator of Computer Science and Information Systems.
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 will prepare the student for work in this field. 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 and Computer Software Engineering.

ASSOCIATE OF SCIENCE DEGREE REQUIREMENTS: COMPUTER SCIENCE

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

II. Recommended Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. COSC 1317 Scientific Programming</td>
<td>3</td>
</tr>
<tr>
<td>B. COSC 1318 Programming Concepts I</td>
<td>3</td>
</tr>
<tr>
<td>C. COSC 1320 C Programming</td>
<td>3</td>
</tr>
<tr>
<td>D. COSC 2318 Programming Concepts II</td>
<td>3</td>
</tr>
<tr>
<td>E. COSC 2325 Assembly Language</td>
<td>3</td>
</tr>
<tr>
<td>F. ENGL 2311 Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>G. ENGL 2000 Literature</td>
<td>3</td>
</tr>
<tr>
<td>H. MATH 2318 Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>I. PHIL 2303 Logic</td>
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</tbody>
</table>

IV. Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>A. Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
   (Elective must be chosen from discipline outside Computer Science)

* See ENGL 2311 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 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.

APPLIED SCIENCE DEGREE REQUIREMENTS:
SOFTWARE DEVELOPMENT

I. General Education Core

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>A. ENGL 1301 Composition/Rhetoric I</td>
<td>3</td>
</tr>
<tr>
<td>B. SPCH 1311 Fundamentals of Speech Communication</td>
<td>3</td>
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<tr>
<td>C. MATH 1314 College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>D. COSC 1306 Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>E. ECON 2301 Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>F. HUMA 1301 Introduction to Humanities</td>
<td>3</td>
</tr>
<tr>
<td>G. PSYC 2301 General Psychology</td>
<td>3</td>
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<tr>
<td>H. PHED/DANC Any Activity Course</td>
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</tbody>
</table>

(22 credit hours)
II. Technical Program Core
(10 credit hours)
A. ELET 1440 AC/DC Fundamentals .............................. 4
B. ENGL 2311 Technical Writing ................................. 3
C. MATH 1316 Trigonometry ........................................ 3
*See ENGL 2311 course description.

III. Major Courses
(24 credit hours)
A. COSC 1318 Programming Concepts I ........................ 3
B. COSC 1320 C Programming ....................................... 3
C. COSC 2318 Programming Concepts II ........................ 3
D. COSC 2325 Assembly Language ................................. 3
E. COSC 2380 Software Engineering .............................. 3
F. COSC 2383 Computer Networks ................................. 3
G. COSC 2384 Large Scale Operating System .................. 3
H. COSC 2386 Systems Programming .............................. 3

IV. Elective
(6 credit hours)
A. COSC 1317 Scientific Programming .......................... 3
B. COSC 2370 Data Structures with C ............................ 3
C. COSC 2372 C++ .................................................... 3
D. COSC 2375 Advanced Assembly Language .................. 3
E. COSC 2379 Programming in Windows ........................ 3
F. COSC 2387 Introduction to Artificial Intelligence .......... 3
G. COSC 2390 Advanced Topics .................................... 3
H. COSC 7300 Cooperative Education ................................ 3

IV. Electives
(3 adit hours)
A. Elective ........................................................................ 3

(Elective must be chosen from discipline outside Computer Science)

CRIMINAL JUSTICE
A TWO-YEAR ASSOCIATE OF ARTS DEGREE PROGRAM

60 CREDIT HOURS REQUIRED TO GRADUATE

ABOUT OUR PROGRAM
Providing comfort and direction during a rape crisis intervention, assisting persons with developmental disabilities, resolving a domestic dispute, arresting a dangerous offender or counseling a correctional dient are just a few of the myriad of functions performed by criminal justice agents. Law enforcement, court and corrections personnel work with people most often when they are in dire need of help, when they are perplexed or sometimes when they

are at their worst. Few careers will require the perseverance and compassion needed in criminal justice, yet few will be as personally rewarding.

The Criminal Justice Program prepares its graduates for entry-level positions in law enforcement, court services, and corrections at the local, state and federal echelons 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 41 for General Education Core requirements.

II. Recommended Electives

(11–13 credit hours)
A. CRU 1307 Crime in America ..................................... 3
B. CRJ 1301 Introduction to Criminal Justice .................. 3
C. CRJ 1310 Fundamentals of Criminal Law ..................... 3
D. CRU 1306 The Court and Criminal Procedure ............. 3
E. BUSI 1370 Principles of Management .......................... 3
F. PSYC 2301 General Psychology ................................. 3
G. PSYC 2316 Psychology of Personality ........................ 3
H. SOCI 1301 Introduction to Sociology .......................... 3
I. SOCI 1306 Social Problems ....................................... 3
J. SOCI 2306 Human Sexuality ...................................... 3
K. SOCI 2326 Social Psychology .................................... 3
L. SOCI 2319 Minority Studies ...................................... 3
M. SPCH 1315 Public Speaking ..................................... 3
N. PHIL 2306 Ethics .................................................... 3

III. Electives
(3 credit hours)
A. Elective ........................................................................ 3

(Elective must be chosen from discipline outside Criminal Justice)
Drama

A TWO-YEAR ASSOCIATE OF ARTS DEGREE PROGRAM

60 CREDIT HOURS REQUIRED TO GRADUATE

ABOUT OUR PROGRAM

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: DRAMA

I. General Education Core

See page 41 for General Education Core requirements.

II. Recommended Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>DRAM 1271</td>
<td>Practicum-Performance</td>
</tr>
<tr>
<td>DRAM 1272</td>
<td>Practicum-Technical</td>
</tr>
<tr>
<td>DRAM 1310</td>
<td>Introduction to the Theatre</td>
</tr>
<tr>
<td>DRAM 1330</td>
<td>Stagecraft</td>
</tr>
<tr>
<td>DRAM 2331</td>
<td>Stagecraft II</td>
</tr>
<tr>
<td>DRAM 1341</td>
<td>Theatrical Makeup</td>
</tr>
<tr>
<td>DRAM 1351</td>
<td>Acting I</td>
</tr>
<tr>
<td>DRAM 1352</td>
<td>Acting II</td>
</tr>
<tr>
<td>DRAM 2351</td>
<td>Acting III</td>
</tr>
<tr>
<td>DRAM 1376</td>
<td>Introduction to Costuming</td>
</tr>
<tr>
<td>DRAM 2336</td>
<td>Voice and Diction</td>
</tr>
<tr>
<td>DRAM 2366</td>
<td>History of Film Making</td>
</tr>
<tr>
<td>SPCH 2341</td>
<td>Oral Interpretation</td>
</tr>
</tbody>
</table>

III. Electives

(3 credit hours)

A. Elective (Elective must be chosen from discipline outside Drama)

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 sewing as a foundation for students beginning their education in these fields.

The program 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

(7 credit hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>ENGL 1301</td>
<td>Composition/Rhetoric I</td>
</tr>
<tr>
<td>PSYC 2301</td>
<td>General Psychology</td>
</tr>
<tr>
<td>PHED/DANC</td>
<td>Any Activity Course</td>
</tr>
</tbody>
</table>
ABOUT

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.

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 41 for General Education Core requirements

II. Recommended Electives

(11-13 credit hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. ECON 2301</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>B. ECON 2302</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>C. ACCT 2301</td>
<td>Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>D. ACCT 2302</td>
<td>Principles of Accounting II</td>
<td>3</td>
</tr>
</tbody>
</table>

...continued...

EDUCATION

Suggested curriculum for elementary (interdisciplinary studies) and secondary education is located in the Transfer Lab at Spring Creek Campus in room G103, and at Central Park Campus in A108.

...continued...

ELECTRONIC TECHNOLOGY

A TWO-YEAR ASSOCIATE OF APPLIED SCIENCE DEGREE PROGRAM

68-69 CREDIT HOURS REQUIRED TO GRADUATE

ABOUT OUR 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 electronics 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 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. For detailed information contact the coordinator of the AAS program or the director of articulation and transfer programs.

**Associate of Applied Science Degree Requirements: Electronic Technology**

**I. General Education Core**

(32 credit hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1301</td>
<td>Composition/Rhetoric I</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 1311</td>
<td>Fundamentals of Speech Communication</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1314</td>
<td>College Algebra</td>
<td>4</td>
</tr>
<tr>
<td>CADD 1301</td>
<td>Computer Graphics Systems</td>
<td>3</td>
</tr>
<tr>
<td>ECON 1301</td>
<td>Introduction to Economics</td>
<td>3</td>
</tr>
<tr>
<td>HUMA 1301</td>
<td>Introduction to Humanities</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 2302</td>
<td>Applied Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PHED/DANC</td>
<td>Any Activity Course</td>
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</table>

**II. Technical Program Core:**

(9 credit hours)

<table>
<thead>
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<th>Title</th>
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<tbody>
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<td>CADD 2305</td>
<td>Electronic Drafting</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 2311</td>
<td>Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1316</td>
<td>Trigonometry</td>
<td>3</td>
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</table>

**II. Major Program Core:**

(30 credit hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELAT 1315</td>
<td>Basic Digital</td>
<td>3</td>
</tr>
<tr>
<td>ELAT 1400</td>
<td>Basic Electronics I</td>
<td>4</td>
</tr>
<tr>
<td>ELAT 1401</td>
<td>Basic Electronics II</td>
<td>4</td>
</tr>
<tr>
<td>ELAT 1405</td>
<td>Electronic Fabrication I</td>
<td>4</td>
</tr>
<tr>
<td>ELAT 1410</td>
<td>Solid State Devices</td>
<td>4</td>
</tr>
<tr>
<td>ELAT 2420</td>
<td>Fund. of Electronic Comm.</td>
<td>4</td>
</tr>
<tr>
<td>ELAT 2425</td>
<td>Active Devices</td>
<td>4</td>
</tr>
<tr>
<td>ELAT 2330</td>
<td>Instrumentation and Telemetry</td>
<td>3</td>
</tr>
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</table>

**III. Electives**

(3-4 credit hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>ELAT 2335</td>
<td>Digital Control Applications</td>
<td>3</td>
</tr>
<tr>
<td>ELAT 2340</td>
<td>Power Supply Systems</td>
<td>3</td>
</tr>
<tr>
<td>ELAT 2445</td>
<td>Applied Electronic Circuits</td>
<td>4</td>
</tr>
<tr>
<td>ELAT 2450</td>
<td>Computer Architecture</td>
<td>4</td>
</tr>
<tr>
<td>ELAT 2455</td>
<td>Applied Computer Programming</td>
<td>4</td>
</tr>
<tr>
<td>ELAT 2460</td>
<td>Microcomputer Systems</td>
<td>3</td>
</tr>
<tr>
<td>ELAT 2465</td>
<td>Optoelectronics</td>
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**IV. Electives**

(3 credit hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>ELAT 7300</td>
<td>Cooperative Education I</td>
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<tr>
<td>ELAT 7305</td>
<td>Cooperative Education II</td>
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</table>

**Electronic Technology**

**Certificate Program**

(30 credit hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
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<tbody>
<tr>
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<td>Basic Digital</td>
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<tr>
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<td>Basic Electronics I</td>
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<tr>
<td>ELAT 1401</td>
<td>Basic Electronics II</td>
<td>4</td>
</tr>
<tr>
<td>ELAT 1405</td>
<td>Electronic Fabrication I</td>
<td>4</td>
</tr>
<tr>
<td>ELAT 1410</td>
<td>Solid State Devices</td>
<td>4</td>
</tr>
<tr>
<td>ELAT 2330</td>
<td>Instrumentation and Telemetry</td>
<td>3</td>
</tr>
<tr>
<td>ELAT 2420</td>
<td>Fund. of Electronic Comm.</td>
<td>4</td>
</tr>
<tr>
<td>ELAT 2425</td>
<td>Active Devices</td>
<td>4</td>
</tr>
</tbody>
</table>

A certificate in Electronic Technology will be granted after completion of the major program core of 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.

C CCC 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 electronics technicians 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 AAS program or the director of articulation and transfer programs.

ASSOCIATE OF APPLIED SCIENCE DEGREE REQUIREMENTS: ELECTRONICS ENGINEERING TECHNOLOGY

I. Core Curriculum Core

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>A. ENGL 1301</td>
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<td>B. SPCH 1311</td>
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</tr>
<tr>
<td>C. MATH 1314</td>
<td>3</td>
</tr>
<tr>
<td>D. CADD 1301</td>
<td>3</td>
</tr>
<tr>
<td>E. ECON 1301</td>
<td>3</td>
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<tr>
<td>F. HUMA 1301</td>
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</tr>
<tr>
<td>G. PSYC 2302</td>
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<td>H. PHED/DANC</td>
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</table>

II. Technical Program Core

<table>
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III. Electives

(3–4 credit hours)

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<td>B. ELET 1401</td>
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<td>C. ELET 1405</td>
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<td>E. ELET 1415</td>
<td>4</td>
</tr>
<tr>
<td>F. ELET 2420</td>
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IV. Electives

(3 credit hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Elective</td>
<td>3</td>
</tr>
</tbody>
</table>

(Elective must be chosen from discipline outside Electronic Technology)

*Higher level physics and mathematics courses may be used
**SPCH 1321 (Business and Professional Speaking) may be substituted for SPCH 1311.
***C CCC has a prerequisite of MATH 1348 (Analytic Geometry) or MATH 2312 (Pre-Calculus for Mathematics and Science) for MATH 2413.

CERTIFICATE PROGRAMS

CERTIFICATE REQUIREMENTS: COMPUTER OPTION

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
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<tbody>
<tr>
<td>A. ELET 1410</td>
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</tr>
<tr>
<td>B. ELET 2325</td>
<td>3</td>
</tr>
</tbody>
</table>

ELECTRONICS ENGINEERING TECHNOLOGY

(22–23 credit hours)
C. ELET 2430 Computer Maintenance 4
D. ELAT 2450 Computer Architecture 4
E. ELAT 2455 Computer Programming 4
F. ELAT 2460 Microcomputer Systems 3

To enroll in this certificate program students must have approval from the program coordinator.

CERTIFICATE REQUIREMENTS: ELECTRONIC COMMUNICATION OPTION

(23 CREDIT HOURS)

A. ELAT 2340 Power Supply Systems 3
B. ELAT 2420 Fundamentals of Elec. Comm. 4
C. ELAT 2445 Applied Electronic Circuits 4
D. ELAT 2465 Optoelectronics 4
E. ELET 2420 Telecommunications 4
F. ELET 2435 Microwave Fundamentals 4

To enroll in this certificate program students must have approval from the program coordinator.

EMERGENCY MEDICAL SERVICES

Emergency Medical Services at CCCC establishes an excellent foundation for work in the field of emergency medicine. After completion of the following courses, a student qualifies to test for state certification as an EMT or EMT/Paramedic.

Credit Hours

EMTP 1500 Emergency Medical Procedures 5
EMTP 1800 Paramedic Procedures I 8
EMTP 2700 Paramedic Procedures II 7

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

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

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 preengineering degree at CCCC prepares the student for 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 preengineering 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

1. 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>11–13 credit hours</td>
</tr>
<tr>
<td>A. CHEM 1411 General Chemistry I 4</td>
</tr>
<tr>
<td>B. CHEM 1412 General Chemistry II 4</td>
</tr>
<tr>
<td>C. COSC 1318 Programming Concepts I 3</td>
</tr>
<tr>
<td>D. ENGL 2311 Technical Writing * 3</td>
</tr>
<tr>
<td>E. ENCR 1304 Engineering Graphics 3</td>
</tr>
<tr>
<td>F. ENCR 2301 Engineering Mechanics I 3</td>
</tr>
<tr>
<td>G. ENCR 2302 Engineering Mechanics II 3</td>
</tr>
</tbody>
</table>
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. Composition I and II enable students to build skills in thinking and writing. In Composition I, students practice expository and persuasive writing. In Composition II, students focus on argumentation, logical thinking and research. 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 courses are taught in the Macintosh classroom, and many instructors have their students use the PC (IBM compatible) classroom. Students may also enroll in cooperative work experience to gain practical work experience.

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 41 for General Education Core requirements.

II. Recommended Electives

(11–13 credit hours)

| A. ENGL | 2307 | Creative Writing | 3 |
| B. ENGL | 2371 | Forms of Literature I | 3 |
| C. ENGL | 2372 | Forms of Literature II | 3 |
| D. ENCL | 2322 | British Literature I | 3 |
| E. ENGL | 2323 | British Literature II | 3 |
| F. ENGL | 2327 | American Literature I | 3 |
| G. ENGL | 2328 | American Literature II | 3 |
| H. ENGL | 2332 | World Literature I | 3 |
| I. ENCL | 2333 | World Literature II | 3 |
| J. ENGL | 2311 | Technical Writing | 3 |

III. Electives

(3 credit hours)

| A. Elective |  | 3 |

*(Elective must be chosen from discipline outside Engineering)*

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 2311 course description

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.
CCC'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 an 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 suppression, investigation, prevention and education. These challenging job opportunities include:

- firefighter
- fire department officer
- municipal emergency administrator
- safety technician
- hazardous material team member
- fire 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 director of the AAS program or the director of articulation and transfer programs.

ASSOCIATE OF APPLIED SCIENCE DEGREE REQUIREMENTS:

FIRE SCIENCE

I. General Education Core

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. ENGL 1301</td>
<td>Composition/Rhetoric I 3</td>
</tr>
<tr>
<td>B. SPCH 1311</td>
<td>Fundamentals of Speech Communication 3</td>
</tr>
<tr>
<td>C. MATH 1332</td>
<td>Contemporary Mathematics 3</td>
</tr>
<tr>
<td>D. COSC 1306</td>
<td>Introduction to Computers 3</td>
</tr>
<tr>
<td>E. ECON 1301</td>
<td>Introduction to Economics 3</td>
</tr>
<tr>
<td>F. HUMA 1301</td>
<td>Introduction to Humanities 3</td>
</tr>
<tr>
<td>G. PSYC 2302</td>
<td>Applied Psychology 3</td>
</tr>
<tr>
<td>H. PHED 1100</td>
<td>Beginning Weight Training and Conditioning 1</td>
</tr>
<tr>
<td>I. CHEM 1405</td>
<td>Introduction to Chemistry 4</td>
</tr>
<tr>
<td>J. ENGL 2311</td>
<td>Technical Writing 3</td>
</tr>
<tr>
<td>K. GOVT 2301</td>
<td>American Government I 3</td>
</tr>
</tbody>
</table>

*See ENGL 2311 course description.

II. Technical Program Core

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. FISC 1305</td>
<td>Fund. of Fire Protection 3</td>
</tr>
<tr>
<td>B. FISC 1315</td>
<td>Fire Safety Education 3</td>
</tr>
<tr>
<td>C. FISC 1325</td>
<td>Industrial Fire Protection I 3</td>
</tr>
<tr>
<td>D. FISC 1330</td>
<td>Fire Protection Systems 3</td>
</tr>
<tr>
<td>E. FISC 1335</td>
<td>Building Codes and Construction 3</td>
</tr>
</tbody>
</table>

III. Major Courses

(16 credit hours)

Basic Firefighter Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. FISC 1011</td>
<td>Firefighter Certification I 3</td>
</tr>
<tr>
<td>B. FISC 1012</td>
<td>Firefighter Certification II 3</td>
</tr>
<tr>
<td>C. FISC 1013</td>
<td>Firefighter Certification III 2</td>
</tr>
<tr>
<td>D. FISC 1014</td>
<td>Firefighter Certification IV 2</td>
</tr>
<tr>
<td>E. FISC 1015</td>
<td>Firefighter Certification V 3</td>
</tr>
<tr>
<td>F. FISC 1016</td>
<td>Firefighter Certification VI 1</td>
</tr>
<tr>
<td>G. EMTP</td>
<td>Emergency Medical Procedures 3</td>
</tr>
</tbody>
</table>

Fire Commission Approved Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. FISC 1310</td>
<td>Fire Prevention 3</td>
</tr>
<tr>
<td>B. FISC 1320</td>
<td>Fire Administration I 3</td>
</tr>
<tr>
<td>C. FISC 1340</td>
<td>Fire Cause and Determination 3</td>
</tr>
<tr>
<td>D. FISC 1450</td>
<td>Firefighting Tactics and Strategy 4</td>
</tr>
<tr>
<td>E. FISC 2100</td>
<td>Seminar 1</td>
</tr>
<tr>
<td>F. FISC 2305</td>
<td>Chemistry of Hazardous Materials I 3</td>
</tr>
<tr>
<td>G. FISC 2310</td>
<td>Chemistry of Hazardous Materials II 3</td>
</tr>
<tr>
<td>H. FISC 2315</td>
<td>Hazardous Materials III 3</td>
</tr>
<tr>
<td>I. FISC 2320</td>
<td>Fire Administration II 3</td>
</tr>
<tr>
<td>J. FISC 2325</td>
<td>Fire Service Computer Applications 3</td>
</tr>
<tr>
<td>K. FISC 2330</td>
<td>Introduction to CAMEO 3</td>
</tr>
<tr>
<td>L. FISC 2335</td>
<td>Methods of Fire Service Instruction 3</td>
</tr>
</tbody>
</table>

IV. Electives

(3 credit hours minimum)

A. Elective 3

(Enter must be chosen from discipline outside Fire Science)

FIRE SCIENCE CERTIFICATE PROGRAM

CERTIFICATE REQUIREMENTS: BASIC FIREFIGHTER

(16 credit hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. FISC 1011</td>
<td>Firefighter Certification I 3</td>
</tr>
<tr>
<td>B. FISC 1012</td>
<td>Firefighter Certification II 2</td>
</tr>
<tr>
<td>C. FISC 1013</td>
<td>Firefighter Certification III 2</td>
</tr>
<tr>
<td>D. FISC 1014</td>
<td>Firefighter Certification IV 2</td>
</tr>
<tr>
<td>E. FISC 1015</td>
<td>Firefighter Certification V 3</td>
</tr>
<tr>
<td>F. FISC 1016</td>
<td>Firefighter Certification VI 1</td>
</tr>
<tr>
<td>G. EMTP</td>
<td>Introduction to Emergency Care 3</td>
</tr>
</tbody>
</table>

Note: Special admission criteria applies to Basic Firefighter certificate program option. See program coordinator 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 41 for General Education Core requirements.

II. Recommended Electives

(11–13 credit hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. FREN 1411</td>
<td>Beginning French I</td>
<td>4</td>
</tr>
<tr>
<td>B. FREN 1412</td>
<td>Beginning French II</td>
<td>4</td>
</tr>
<tr>
<td>C. FREN 2311</td>
<td>Intermediate French I</td>
<td>3</td>
</tr>
<tr>
<td>D. FREN 2312</td>
<td>Intermediate French II</td>
<td>3</td>
</tr>
<tr>
<td>E. FREN 1100</td>
<td>Conversational French I</td>
<td>1</td>
</tr>
<tr>
<td>F. FREN 1110</td>
<td>Conversational French II</td>
<td>1</td>
</tr>
</tbody>
</table>

III. Electives

(3 credit hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Elective</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

*Co-requisite of FREN 2311

**Co-requisite of FREN 2312

GEORGRAPHY

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 41 for General Education Core requirements.

II. Recommended Electives

(11–13 credit hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. GEOG 1301</td>
<td>Physical Geography</td>
<td>3</td>
</tr>
<tr>
<td>B. GEOG 1302</td>
<td>Cultural Geography</td>
<td>3</td>
</tr>
<tr>
<td>C. GEOG 1303</td>
<td>World Regional Geography</td>
<td>3</td>
</tr>
<tr>
<td>D. ANTH 2351</td>
<td>Cultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>E. PSYC 2301</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>F. HIST 2311</td>
<td>Western Civilization I</td>
<td>3</td>
</tr>
<tr>
<td>G. HIST 2312</td>
<td>Western Civilization II</td>
<td>3</td>
</tr>
<tr>
<td>H. Elective</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>I. Elective</td>
<td></td>
<td>4</td>
</tr>
</tbody>
</table>

IV. Electives

(3 credit hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Elective</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

*Elective must be chosen from discipline outside Geography*

GERMAN

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 German provides the essential language background for the advanced study of German, for the mastery of the competencies in listening, speaking and writing the language, and for a more rapid acquisition of other foreign languages (particularly Germanic language, for example, Dutch). The courses are oral-proficiency based in order to enable students to converse in German as quickly as possible.

CAREER OPPORTUNITIES

The recent reunification of Germany has created many job opportunities in international relations, business and finance. German has emerged as an important language in both the Euro-
pean community and the world market Combining the study of German with business or related degrees will provide students with the tools to live and work in an international environment.

ASSOCIATE OF ARTS DEGREE REQUIREMENTS: GERMAN

I. General Education Core
   See page 41 for General Education Core requirements.

II. Recommended Electives
    Credit Hours
    (11-13 credit hours)
    A. GERM 1411 Beginning German I .......... 4
    B. GERM 1412 Beginning German II .......... 4
    C. GERM 2311 Intermediate German I ...... 3
    D. GERM 2312 Intermediate German II ..... 3
    E. GERM 1100 Conversational German I* ..... 1
    F. GERM 1110 Conversational German II** .. 1

IV. Electives
    (3 credit hours)
    A. Elective ....................................... 3
    (Elective must be chosen from discipline outside German)
    * Co-requisite of GERM 2311.
    ** Co-requisite of GERM 2312.

GOVERNMENT

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: GOVERNMENT

I. General Education Core
   See page 41 for General Education Core requirements.

II. Recommended Electives
    Credit Hours
    (11-13 credit hours)
    A. COSC 1318 Programming Concepts I ....... 3
    B. COSC 2318 Programming Concepts II ...... 3
    C. CRJ 1301 Introduction to Criminal Justice .... 3

D. ECON 2301 Principles of Economics-Macro ..... 3
E. ECON 2302 Principles of Economics-Micro ..... 3
F. GOVT 2304 Introduction to Political Science .... 3
G. PHIL 2303 Logic ................................ 3
H. PHIL 2306 Ethics ................................ 3
I. PSYC 2301 General Psychology ................. 3
J. Foreign Language Sequence I .................. 4
K. Foreign Language Sequence II ................. 4

III. Electives
    (3 credit hours)
    A. Elective ....................................... 3
    (Elective must be chosen from discipline outside Government)

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 bachelor's 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 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 41 for General Education Core requirements.

II. Recommended Electives

(11 – 13 credit hours)

| A. ECON 2301 | Principles of Economics-Macro | 3 |
| B. ECON 2302 | Principles of Economics-Micro | 3 |
| C. HIST 2311 | Western Civilization I | 3 |
| D. HIST 2312 | Western Civilization II | 3 |
| E. HIST 2313 | Texas History | 3 |
| F. PHIL 1301 | Introduction to Philosophy | 3 |
| G. PHIL 2303 | Logic | 3 |
| H. PSYC 2301 | General Psychology | 3 |
| I. SOCI 1301 | Introduction to Sociology | 3 |
| J. Foreign Language Sequence I | 4 |
| K. Foreign Language Sequence II | 4 |

III. Electives

(3 credit hours)

A. Elective | 3

(Elective must be chosen from discipline outside History)

HORTICULTURE/LANDSCAPE TECHNOLOGY

A TWO-YEAR ASSOCIATE OF APPLIED 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
- countyagent
- 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

(11 – 13 credit hours)

| A. HORT 1315 | Interior Plants | 3 |
| B. HORT 1305 | Soils and Plant Nutrition | 3 |
| C. HORT 1310 | Plant Pests and Controls | 3 |
| D. HORT 1300 | Basic Horticulture | 3 |
| E. HORT 1400 | Woody Plant Materials | 4 |
| F. HORT 1401 | Woody Plant Materials | 4 |
| G. HORT 2425 | Plant Propagation | 4 |

III. Electives

(3 credit hours minimum)

A. Elective | 3

(Elective must be chosen from discipline outside Horticulture/Landscape Technology)

HORTICULTURE/LANDSCAPE TECHNOLOGY

A TWO-YEAR ASSOCIATE OF APPLIED SCIENCE DEGREE PROGRAM

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 the area. Some 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 AAS program or the director of articulation and transfer programs.

ASSOCIATE OF APPLIED SCIENCE DEGREE REQUIREMENTS: HORTICULTURE TECHNOLOGY

71 CREDIT HOURS REQUIRED TO GRADUATE

I. General Education Con                                      Credit Hours
   (26 credit hours)
   A. ENGL 1301 Composition/Rhetoric I ................................3
   B. SPCH 1311 Fundamentals of Speech Communication ........... 3
   or SPCH 1315 Public Speaking ................................... 3
   C. MATH 1332 Contemporary Mathematics ............................3
   D. COSC 1306 Introduction to Computers ...........................3
   E. ECON 1301 Introduction to Economics ...........................3
   F. HUMA 1301 Introduction to Humanities ..........................3
   G. PSYC 2301 General Psychology ..................................3
   H. BIOL 1411 General Botany .....................................4
   I. PHED/DANC Any Activity Elective ................................1

II. Technical Program Con                                      Credit Hours
   (39 credit hours)
   A. HORT 1300 Basic Horticulture ....................................3
   B. HORT 1305 Soils and Plant Nutrition .............................3
   C. HORT 1310 Plant Pests and Controls .............................3
   D. HORT 1315 Interior Plants .......................................3
   E. HORT 1400 Woody Plant Materials ................................4
   F. HORT 1401 Herbaceous Plant Materials ..........................4
   G. HORT 2300 Introduction to Landscape Design ....................3
   H. HORT 2320 Field Experience ....................................3
   I. HORT 2400 Site Analysis and Surveying ............................4
   J. HORT 2425 Plant Propagation ...................................4
   K. HORT 2430 Nursery and Greenhouse Production .................4
   L. HORT 1100 Seminar .............................................1

III. Electives
   (3 credit hours minimum)
   A. Elective .....................................................................3
   (Elective must be chosen from discipline outside Horticulture/ Landscape Technology)

ASSOCIATE OF APPLIED SCIENCE DEGREE REQUIREMENTS: LANDSCAPE TECHNOLOGY

72 CREDIT HOURS REQUIRED TO GRADUATE

I. General Education Con                                      Credit Hours
   (26 credit hours)
   A. ENGL 1301 Composition/Rhetoric I ................................3
   B. SPCH 1311 Fundamentals of Speech Communication ........... 3
   or SPCH 1315 Public Speaking ................................... 3
   C. MATH 1332 Contemporary Mathematics ............................3
   D. COSC 1306 Introduction to Computers ...........................3
   E. ECON 1301 Introduction to Economics ...........................3
   F. HUMA 1301 Introduction to Humanities ..........................3
   G. PSYC 2301 General Psychology ..................................3
   H. BIOL 1411 General Botany .....................................4
   I. PHED/DANC Any Activity Elective ................................1

II. Technical Program Con                                      Credit Hours
   (43 credit hours)
   A. HORT 1300 Basic Horticulture ....................................3
   B. HORT 1305 Soils and Plant Nutrition .............................3
   C. HORT 1310 Plant Pests and Controls .............................3
   D. HORT 1320 Turf-Grass Science and Management ...............3
   E. HORT 1400 Woody Plant Materials ................................4
   F. HORT 1401 Herbaceous Plant Materials ..........................4
   G. HORT 2300 Introduction to Landscape Design ....................3
   H. HORT 2400 Site Analysis and Surveying ............................4
   I. HORT 2405 Landscape Construction ................................4
   J. HORT 2410 Landscape Business Operations .....................4
   K. HORT 2500 Practicum .............................................5
   L. HORT 1100 Seminar .............................................1
   M. HORT 1200 Landscape Industry ..................................2

III. Electives
   (3 credit hours minimum)
   A. Elective .....................................................................3
   (Elective must be chosen from discipline outside Horticulture/ Landscape Technology)

LANDSCAPE INDUSTRY

CERTIFICATE PROGRAM

A certificate program for the landscape industry will begin in fall 1993. 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 horticulture/landscape technology program at Spring Creek Campus.
LEGAL ASSISTANT

A TWO-YEAR ASSOCIATE OF ARTS DEGREE PROGRAM OR CERTIFICATE

ABOUT OUR PROGRAM

CCCC has two degree plans for legal assistant studies: Associate of Arts and Associate of Applied Science.

In addition CCCC has two certificate options. 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 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 by attorneys. Commonly, legal assistants draft legal documents, perform legal research, obtain information relevant to cases from various sources, interview clients and assist in trial preparation.

BASICS SKILL REQUIREMENTS
1. Personality traits: integrity, above average intelligence, dependable, hard-working, self-disciplined, self-motivated, energetic.
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.
5. Perform billing, accounting, banking functions.

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 document preparation

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 adviser.

ASSOCIATE OF ARTS DEGREE REQUIREMENTS: LEGAL ASSISTANT

I. General Education Core

See page 41 for General Education Core requirements.

II. Recommended Electives

<table>
<thead>
<tr>
<th>Credit Hours</th>
</tr>
</thead>
</table>

A. LEGL 1301 Law and Judicial Systems
B. LEGL 1302 Legal Research
C. LEGL 1305 Law Office Management
D. LEGL 2301 Civil Procedure
E. OFAD 1331 Word Processing I
F. OFAD 1332 Word Processing II
G. OFAD 2303 Advanced Typing/Legal

IV. Electives

(3 credit hours)

A. Elective

(Elective must be chosen from discipline outside Legal Assistant)

*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

64 credit hours required to graduate

I. General Education Core (22 credit hours)
   A. ENGL 1301 Compositionrhetoric I .......................... 3
   B. SPCH 1311 Fundamentals of Speech Communication .......... 3
   or SPCH 1315 Public Speaking .................................. 3
   or SPCH 1321 Business and Professional Speaking .......... 3
   C. MATH 1332 Contemporary Mathematics* ........................ 3
   D. COSC 1306 Introduction to Computers ......................... 3
   E. ECON 1301 Introduction to Macroeconomics ** ............. 3
   F. HUMA 1301 Introduction to Humanities ....................... 3
   G. PSYC 2302 Applied Psychology *** ........................ 3
   H. PHED/DANC Any Activity Course ................................ 1

II. Technical Program Core
   (15 credit hours)
   A. ACCT 2301 Principles of Accounting I ................. 3
   B. ENGL 1302 Compositionrhetoric II ......................... 3
   C. OFAD 1331 Word Processing I .............................. 3
   D. OFAD 1332 Word Processing II/LEGAL .................... 3
   E. OFAD 2303 Advanced Typewriting/LEGAL .................. 3

III. Major Courses
   (12 credit hours)
   A. LEGL 1301 Law and Judicial Systems ..................... 3
   B. LEGL 1302 Legal Research .................................. 3
   C. LEGL 1305 Law Office Management ....................... 3
   D. LEGL 1308 Law Office Management ....................... 3
   E. LEGL 2301 Civil Procedure ................................ 3

IV. Electives
   (12 credit hours)
   A. BUSI 2301 Business Law .................................... 3
   B. CRJ 1301 Introduction to Criminal Justice ............. 3
   C. CRJ 1306 Courts and Criminal Procedure .............. 3
   D. CRJ 1310 Fundamentals of Criminal Law ............. 3
   E. ENGL 2300 Any 2300-Level Course ........................ 3
   F. LEGL 2303 Family Law ..................................... 3
   G. LEGL 2304 Wills Trusts, Probate .......................... 3
   H. LEGL 2306 Business Organizations ...................... 3
   I. LEGL 2307 Tort and Insurance Law ....................... 3
   J. LEGL 2308 Business Legal Environment .................. 3
   K. LEGL 7300 Cooperative Education I ..................... 3
   L. GOVT 2302 American Government II ........................ 3
   M. RLST 1315 Promulgated Contract Law .................... 3
   N. RLST 2320 Real Estate Law ................................ 3

IV. Electives
   (3 credit hours)
   A. Elective ................................................................ 3
   (Elective must be chosen from discipline outside Legal Assistant)
   * Higher level may be substituted.
   ** ECON 1301 may not transfer. A higher level may be taken for transfer. (ECON 2301 or 2302)
   *** May substitute SOCI 1301.

LEGAL ASSISTANT
CERTIFICATE PROGRAMS

CERTIFICATE REQUIREMENTS: LEGAL ASSISTANT GENERAL CERTIFICATE

(27 credit hours)

   A. LEGL 1301 Law and Judicial Systems ..................... 3
   B. LEGL 1302 Legal Research and Writing .................. 3
   C. LEGL 1305 Law Office Management ....................... 3
   D. LEGL 2301 Civil Procedure ................................ 3
   E. ACCT 1370 Elementary Accounting ** .................. 3
   F. COSC 1306 Introduction to Computers ** .............. 3
   G. OFAD 1331 Word Processing I ................................ 3
   H. OFAD 1332 Word Processing II/LEGAL .................. 3
   I. OFAD 2303 Advanced Typewriting/LEGAL .............. 3

* To enroll in this certificate program the student must meet one of the following admission requirements and have permission from the program coordinator:
   a. Three years full-time employment in a legal related field or
   b. Five years full-time employment in a secretarial related field.

** Higher level may be substituted.

CERTIFICATE REQUIREMENTS: LEGAL ASSISTANT SPECIALTY CERTIFICATE

(15 credit hours—choose five of the following courses)

   A. LEGL 2303 Family Law ..................................... 3
   B. LEGL 2304 Wills, Trusts and Probate .................. 3
   C. LEGL 2306 Business Organization ...................... 3
   D. LEGL 2307 Tort and Insurance Law .................... 3
   E. LEGL 2308 Business Legal Environment .................. 3
   F. BUSI 2301 Business Law .................................... 3
   G. CRJ 1306 The Courts and Criminal Procedure .......... 3
   H. CRJ 1310 Fundamentals of Criminal Law .............. 3

75
**Management**

**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

**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: Management Development

<table>
<thead>
<tr>
<th>I. General Education Core</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. ENCL 1301 Composition/Rhetoric I</td>
<td>3</td>
</tr>
<tr>
<td>B. SPCH 1311 Fundamentals of Speech Communication</td>
<td>3</td>
</tr>
<tr>
<td>C. MATH 1332 Contemporary Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 1324 PreCalculus for Business/Economics</td>
<td>3</td>
</tr>
<tr>
<td>D. COSC 1306 Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>E. ECON 1301 Introduction to Economics</td>
<td>3</td>
</tr>
<tr>
<td>or ECON 2301 Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>F. HUMA 1301 Introduction to Humanities</td>
<td>3</td>
</tr>
<tr>
<td>G. PSYC 2302 Applied Psychology</td>
<td>3</td>
</tr>
<tr>
<td>H. PHED/DANC Any Activity Course</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>II. Technical Program Core</th>
<th>(12 credit hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. ACCT 2301 Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>B. BUSI 1370 Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>C. BUSI 1374 Personnel Management</td>
<td>3</td>
</tr>
<tr>
<td>D. MRKT 1305 Principles of Marketing</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>III. Major Courses</th>
<th>(24 credit hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. ACCT 2302 Principles of Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>B. BUSI 2372 Organizational Behavior</td>
<td>3</td>
</tr>
<tr>
<td>C. BUSI 2301 Business Law</td>
<td>3</td>
</tr>
<tr>
<td>D. BUSI 2370 Quality and Leadership</td>
<td>3</td>
</tr>
<tr>
<td>E. BUSI 2376 Strategic Management</td>
<td>3</td>
</tr>
<tr>
<td>F. CSCI 2305 Integrated Spreadsheet Applications</td>
<td>3</td>
</tr>
<tr>
<td>G. ENCL 2311 Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>H. SBMT 1305 Small Business Financing</td>
<td>3</td>
</tr>
</tbody>
</table>

*See ENGL 2311 course description.*

<table>
<thead>
<tr>
<th>IV. Electives</th>
<th>(3 credit hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. BUSI 1376 International Business</td>
<td>3</td>
</tr>
<tr>
<td>B. BUSI 2374 Labor Management Relations</td>
<td>3</td>
</tr>
<tr>
<td>C. BUSI 2379 Selected Topics—Personnel Management</td>
<td>3</td>
</tr>
<tr>
<td>D. BUSI 7300 Cooperative Education I</td>
<td>3</td>
</tr>
<tr>
<td>E. BUSI 7305 Cooperative Education II</td>
<td>3</td>
</tr>
<tr>
<td>F. CSCI 1320 BASIC Programming</td>
<td>3</td>
</tr>
<tr>
<td>G. CSCI 2345 Information Systems Management</td>
<td>3</td>
</tr>
<tr>
<td>H. CSCI 2310 Database Applications</td>
<td>3</td>
</tr>
<tr>
<td>I. MRKT 1310 Principles of Advertising</td>
<td>3</td>
</tr>
<tr>
<td>J. MRKT 1316 Sales Management</td>
<td>3</td>
</tr>
<tr>
<td>K. SBMT 1310 Principles of Retailing</td>
<td>3</td>
</tr>
<tr>
<td>L. BUSI 1372 Supervisory Management</td>
<td>3</td>
</tr>
</tbody>
</table>
V. Electives (3 credit hours)
   A. Elective

   (Elective must be chosen from discipline outside Management Development)

Certificate Requirements: Management Development

(30 CREDIT HOURS)

A. ACCT 2301 Principles of Accounting I 
B. ACCT 2302 Principles of Accounting II
C. BUSI 1370 Principles of Management
D. BUSI 1374 Personnel Management
E. BUSI 2301 Business Law
F. BUSI 2370 Quality and Leadership
G. BUSI 2372 Organizational Behavior
H. BUSI 2376 Strategic Management
J. CSCI 2305 Integrated Spreadsheet Applications
J. SBMT 1305 Small Business Finance

Certificate Requirements: Small Business Management *

(15 CREDIT HOURS)

A. MRKT 1305 Principles of Marketing
B. SBMT 1300 Small Business Management I
C. SBMT 1305 Small Business Financing
D. SBMT 1310 Principles of Retailing
E. SBMT 2300 Small Business Management II

Management

Small Business Management

About Our Program

The Small Business Management Certificate 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.

Career Opportunities

The Small Business Management Certificate 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.

Marketing

A two-year Associate of Applied Science degree program

61 CREDIT HOURS REQUIRED TO GRADUATE

About Our Program

The A.A.S. 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 A.A.S. degree in Marketing provides the essential core of marketing practices and prepares students for positions in:
- retailing
- wholesaling
- marketing management
- sales
- sales management
- 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

1. General Education Core (22 credit hours)
   A. ENGL 1301 Composition/Rhetoric I 3
   B. SPCH 1311 Fundamentals of Speech Communication 3
   or SPCH 1321 Business and Professional Speaking 3
   C. MATH 1332 Contemporary Mathematics 3
   or MATH 1324 PreCalculus for Business/Economics 3
   D. COSC 1306 Introduction to Computers 3
   E. ECON 2301 Principles of Macroeconomics 3
   F. HUMA 1301 Introduction to Humanities 3
   G. PSYC 2301 General Psychology* 3
   or PSYC 2301 General Psychology 3
   H. PHED/DANC Any Activity Course 1

II. Technical Program Core (15 credit hours)
   A. ACCT 2301 Principles of Accounting I 3
   B. BUSI 2301 Business Law 3
   C. MRKT 1315 Principles of Selling 3
   D. MRKT 1305 Principles of Marketing 3
   E. SBMT 1300 Small Business Management 3

III. Major Courses (18 credit hours)
   A. MRKT 1310 Principles of Advertising 3
   B. MRKT 1316 Sales Management 3
   C. MRKT 2305 Market Research 3
   D. MRKT 2315 Business Ethics 3
   E. MRKT 2320 International Marketing 3
   F. SBMT 1310 Principles of Retailing 3

IV. Electives (3 credit hours)
   A. ACCT 1300 Survey of Advertising Art 3
   B. ACCT 1305 Visual Communications I 3
   C. COMM 1307 Introduction to Mass Communication 3
   D. MRKT 2300 Fashion Show Production 3
   E. MRKT 2310 Promotion Techniques 3
   E. MRKT 2330 Special Topics 3
   F. MRKT 7300 Cooperative Education I 3
   C. MRKT 7305 Cooperative Education II 3

IV. Electives (3 credit hours)
   A. Elective 3
   (Elective must be chosen from discipline outside Marketing)

* Higher level course necessary for transfer.
• 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 AAS 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. ENCL 1301 Composition/Rhetoric .............................. 3
B. SPCH 1311 Fundamentals of Speech Communications** .............................. 3
C. MATH 1324 Pre-Calculus for Business/Economics * .............................. 3
D. COSC 1306 Contemporary Mathematics ...................... 3
E. ECON 2301 Principles of Microeconomics ...................... 3
F. HUMA 1301 Introduction to Humanities ...................... 3
G. SPCH 1321 Business and Professional Speaking .............................. 3

II. Technical Program Core

(12 credit hours)

A. ACCT 2301 Principles of Accounting .............................. 3
B. MRKT 1305 Principles of Marketing ...................... 3
C. MRKT 1315 Principles of Selling ...................... 3
D. SBMT 1300 Small Business Management ...................... 3

III. Major Courses

(18 credit hours)

A. MRKT 1300 Fashion Marketing .............................. 3
B. MRKT 1320 Fashion Design ...................... 3
C. MRKT 1325 Fashion Buying .............................. 3
D. MRKT 2300 Fashion Show Production ...................... 3
E. MRKT 2305 Market Research .............................. 3
F. SBMT 1310 Principles of Retailing .............................. 3

IV. Electives

(6 credit hours)

A. ACCT 2302 Principles of Accounting II ...................... 3
B. AGDT 1325 Visual Communications I ...................... 3

C. ARTS 2336 Papermaking ............................................. 3
D. BUSI 2301 Business Law ............................................. 3
E. MRKT 7300 Cooperative Education I ............................................. 3
F. MRKT 7305 Cooperative Education II ............................................. 3
G. SPCH 1321 Business and Professional Speaking .............................. 3

V. Electives

(3 credit hours)

A. Elective ............................................. 3

(Elective must be chosen from discipline outside Marketing)

**Higher level course necessary for transfer.**

**SPCH 1321 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 audiovisual 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

(11-13 credit hours)

A. ENCL 2311 Technical Writing* ............................................. 3
B. MATH 1348 Analytic Geometry ............................................. 3
A sizer and Improvisation are also available to students interested in a career in the recording industry. Opportunities are available 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 41 for General Education Core requirements.

II. Recommended Electives

(A credit hour minimum)

A. Elective: 3

(Elective must be chosen from discipline outside Mathematics)

II. Required Core Courses

A. BUSI 2379 Business of Music (Selected Topics in Business Principles) 3
B. COMM 1371 Survey of Recording Techniques I 3
C. COMM 2324 Survey of Recording Techniques II 3
D. MUSI 1116 Aural Skills I 1
E. MUSI 1117 Aural Skills II 1
F. MUSI 1131 Ensemble 1
G. MUSI 1159 Minor Vocal Ensembles 1
H. MUSI 1171 Class Piano I 1
I. MUSI 1172 Class Piano II 1
J. MUSI 1173 Applied Music-Major 1
K. MUSI 1181 Beginning Piano I 1
L. MUSI 1182 Beginning Piano II 1
M. MUSI 1183 Class Voice 1
N. MUSI 1184 Class Voice II 1
O. MUSI 1192 Class Guitar I 1
P. MUSI 1193 Class Guitar II 1
Q. MUSI 1263 Improvisation 1
R. MUSI 1271 Intro to Synthesizer I 1
S. MUSI 1272 Intro to Synthesizer II 1
T. MUSI 1301 Music Fundamentals 1
U. MUSI 1306 Music Appreciation 1
V. MUSI 1308 Music Literature I 1
W. MUSI 1309 Music Literature II 1
X. MUSI 1310 Music In America 1
Y. MUSI 1311 Music Theory I 1
Z. MUSI 1312 Music Theory II 1
AA. MUSI 1386 Arranging 3
BB. MUSI 2116 Aural Skills III 1
CC. MUSI 2118 Aural Skills IV 1
DD. MUSI 2124 Band 1
EE. MUSI 2143 Chorus 1
FF. MUSI 2181 Beginning Piano III 1
GG. MUSI 2182 Piano Proficiency IV 1
HH. MUSI 2311 Music Theory III 1
II. MUSI 2312 Music Theory IV 1
JJ. MUSI 2371 Studio Technology Practicum 1
KK. MUSI 2372 Practicum in Electronic Media 1

IV. Electives

A. Elective: 3

(Elective must be chosen from discipline outside Music)

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 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.

**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 director of the AAS 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

- MATH 1324 Pre-Calculus for Business/Economics 3
- MATH 1342 Statistics 3
- MATH 1314 College Algebra 3
- BIOL 1406 General Biology I 4
- BIOL 2401 Anatomy and Physiology I 4
- BIOL 2402 Anatomy and Physiology II 4
- BIOL 2420 Microbiology 4

II. First Semester

14 credit hours

- NURS 1800 Nursing I 8
- PSYC 2301 General Psychology 3
- ENGL 1301 Composition/lhoretic 3

III. Second Semester

15 credit hours

- NURS 1805 Nursing II 8
- PSYC 2314 Life Span Psychology 3
- ENGL 1302 Composition/lhoretic II 3
- PHED Any Activity Course 1

IV. Summer Session

4 credit hours

- NURS 2400 Nursing III 4

V. Fourth Semester

12 credit hours

- NURS 2900 Nursing IV 9
- SOCI 1301 Intro. to Sociology or 3
- SOCI 1306 Social Problems or 3
- SOCI 2371 Death and Dying 3

VI. Fifth Semester

12 credit hours

- NURS 2905 Nursing V 9
- Elective 3

(Transfer must be chosen from discipline outside Nursing)

Notes: Special admission criteria applies to this program and registration is by permission only. Applications can be obtained from the Health Science, Physical Education and Child Development Division Office.

Student placement in mathematics and English is based upon the results of tests and subjects completed before admission. "BIO 1406 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 5.1, 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 Program' 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 10-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

(22 credit hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. ENGL 1301</td>
<td>Composition/Rhetoric I</td>
<td>3</td>
</tr>
<tr>
<td>B. SPCH 1311</td>
<td>Fundamentals of Speech Communication</td>
<td>3</td>
</tr>
<tr>
<td>C. MATH 1332</td>
<td>Contemporary Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 1324</td>
<td>Pre-Calculus for Business/Economics</td>
<td>3</td>
</tr>
<tr>
<td>D. COSC 1306</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>E. ECON 1301</td>
<td>Introduction to Economics</td>
<td></td>
</tr>
<tr>
<td>F. HUMA 1301</td>
<td>Introduction to Humanities</td>
<td>3</td>
</tr>
<tr>
<td>G. PSYC 2302</td>
<td>Applied Psychology</td>
<td>3</td>
</tr>
<tr>
<td>H. PHED/DANC</td>
<td>Any Activity Course</td>
<td>1</td>
</tr>
</tbody>
</table>

II. Technical Program Core

(16 credit hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. CSCI 1305</td>
<td>Microcomputer Concepts</td>
<td>3</td>
</tr>
<tr>
<td>B. OFAD 1210</td>
<td>Records Management</td>
<td></td>
</tr>
<tr>
<td>C. OFAD 1211</td>
<td>Proofreading/Editing</td>
<td>2</td>
</tr>
<tr>
<td>D. OFAD 1302</td>
<td>Intermediate Typing/PC</td>
<td>3</td>
</tr>
<tr>
<td>E. OFAD 1331</td>
<td>Word Processing I</td>
<td>3</td>
</tr>
<tr>
<td>F. OFAD 2303</td>
<td>Advanced Typing/PC</td>
<td>3</td>
</tr>
</tbody>
</table>

III. Major Courses

(12 credit hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. ACCT 1370</td>
<td>Elementary Accounting</td>
<td>3</td>
</tr>
<tr>
<td>B. OFAD 1315</td>
<td>Electronic Calculator</td>
<td>3</td>
</tr>
</tbody>
</table>

C. OFAD 1332 | Word Processing II            | 3            |
D. OFAD 2315 | Office Procedures             | 3            |

IV. Electives

(9 credit hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. BUSI 1301</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>B. BUSI 1370</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>C. BUSI 2301</td>
<td>Business Law</td>
<td>3</td>
</tr>
<tr>
<td>D. CSCI 2305</td>
<td>Integrated Spreadsheet Applications</td>
<td>3</td>
</tr>
<tr>
<td>E. OFAD 1320</td>
<td>Business Correspondence</td>
<td>3</td>
</tr>
<tr>
<td>F. OFAD 1325</td>
<td>Word Processing Software</td>
<td>3</td>
</tr>
<tr>
<td>G. OFAD 2305</td>
<td>Machine Transcription</td>
<td>3</td>
</tr>
<tr>
<td>H. OFAD 2333</td>
<td>Word Processing III</td>
<td>3</td>
</tr>
<tr>
<td>I. OFAD 7300</td>
<td>Cooperative Education I</td>
<td>3</td>
</tr>
<tr>
<td>J. OFAD 7305</td>
<td>Cooperative Education II</td>
<td>3</td>
</tr>
</tbody>
</table>

V. Electives

(3 credit hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Elective</td>
<td>Elective</td>
<td>3</td>
</tr>
</tbody>
</table>

( Elective must be chosen from discipline outside Office Administration)

These courses also apply toward the Office Support Certificate.

OFFICE ADMINISTRATION

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 5.1 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 1301 Composition/Rhetoric I ................. 3
B. SPCH 1311 Fundamentals of Speech Communication .... 3
C. MATH 1332 Contemporary Mathematics .......... 3
or MATH 1324 Pre-Calculus for Business/Economics .... 3
D. COSC 1306 Introduction to Computers ........ 3
E. ECON 1301 Introduction to Economics ........... 3
F. HUMA 1301 Introduction to Humanities ........... 3
G. PSYC 2302 Applied Psychology ................ 3
H. PHED/DA NC Any Activity Course ............... 1

II. Technical Program Core

(16 credit hours)

A. CSCI 1305 Microcomputer Concepts ............ 3
B. OFAD 1210 Records Management* .............. 2
C. OFAD 1211 Proofreading/Editing ............... 2
D. OFAD 1302 Intermediate Typing/PC* .......... 3
E. OFAD 1331 Word Processing I* ............... 3
F. OFAD 2303 Advanced Typing/PC* ............ 3

11. Major Courses

(15 credit hours)

A. ACCT 1370 Elementary Accounting* .............. 3
B. HLSC 1300 Medical Terminology* ............... 3
C. OFAD 1332 Word Processing II* ............... 3
D. OFAD 2305 Machine Transcription* ............ 3
E. OFAD 2320 Medical Office Procedures* ........ 3

IV. Electives

(6 credit hours)

A. OFAD 1305 Beginning Shorthand .................. 3
B. OFAD 1306 Intermediate Shorthand ............... 3
C. OFAD 1315 Electronic Calculator ............... 3
D. OFAD 1320 Business Correspondence .......... 3
E. OFAD 1325 Word Processing Software .......... 3
F. OFAD 2333 Word Processing III ................. 3
G. OFAD 7300 Cooperative Education .............. 3
H. OFAD 7305 Cooperative Education II .......... 3
I. CSCI 2305 Integrated Spreadsheet Applications .... 3

V. Electives

(3 credit hours)

A. Elective ........................................... 3

( Elective must be chosen from discipline outside Office Administration)

*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 5.1, 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 1301 Composition/Rhetoric I ........................................ 3
B. SPCH 1311 Fundamentals of Speech Communication ........... 3
C. MATH 1332 Contemporary Mathematics ............................... 3
or MATH 1324 Pre-Calculus for Business/Economics ............. 3
D. COSC 1306 Introduction to Computers ................................ 3
E. ECON 1301 Introduction to Economics ................................. 3
F. HUMA 1301 Introduction to Humanities ................................. 3
G. PSYC 2302 Applied Psychology ........................................... 3
H. PHED/DANC Any Activity Course .................................... 1

II. Technical Program Core

(16 credit hours)

A. CSCI 1305 Microcomputer Concepts * .................................. 3
B. OFAD 1210 Records Management * .................................. 2
C. OFAD 1211 Proofreading/Editing* ..................................... 2
D. OFAD 1302 Intermediate Typewriting/PC* .......................... 3

III. Major Courses

(15 credit hours)

A. ACCT 1370 Elementary Accounting* .................................. 3
B. OFAD 1320 Business Correspondence .................................. 3
C. OFAD 1332 Word Processing II* ..................................... 3
D. OFAD 2305 Machine Transcription .................................. 3
E. OFAD 2315 Office Procedures ........................................ 3

IV. Electives

(6 credit hours)

A. BUSI 1301 Introduction to Business .................................. 3
B. BUSI 1370 Principles of Management .................................. 3
C. BUSI 1372 Supervisory Management ................................. 3
D. BUSI 2301 Business Law .............................................. 3
E. CSCI 2305 Integrated Spreadsheet Applications .................. 3
F. OFAD 1305 Beginning Shorthand ...................................... 3
G. OFAD 1306 Intermediate Shorthand .................................. 3
H. OFAD 1315 Electronic Calculator* ................................... 3
I. OFAD 1325 Word Processing Software* ................................ 3
J. OFAD 2333 Word Processing III* ..................................... 3
K. OFAD 7300 Cooperative Education I .................................. 3
L. OFAD 7305 Cooperative Education II .................................. 3

V. Electives

(3 credit hours)

A. Elective .............................................................................. 3

(Elective must be chosen from discipline outside Office Administration)

These courses also apply toward the Office Support and Word Processing certificates.

OFFICE ADMINISTRATION CERTIFICATE PROGRAMS

(22-26 CREDIT HOURS)

MEDICAL OFFICE

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

CERTIFICATE REQUIREMENTS: MEDICAL OFFICE

(26 CREDIT HOURS)

A. OFAD 1302 Intermediate Typewriting/PC .......................... 3
B. OFAD 2303 Advanced Typewriting/PC ................................. 3
C. OFAD 1210 Records Management .................................... 2
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)

- **A. OFAD 1302 Intermediate Typewriting/PC** 3
- **B. OFAD 2303 Advanced Typewriting/PC** 3
- **C. OFAD 1210 Records Management** 2
- **D. OFAD 1211 Proofreading/Editing** 2
- **E. OFAD 1315 Electronic Calculator** 3
- **F. OFAD 1331 Word Processing I** 3
- **G. ACCT 1370 Elementary Accounting** 3
- **H. OFAD 1332 Word Processing II** 3

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)

- **A. OFAD 1302 Intermediate Typewriting/PC** 3
- **B. OFAD 2303 Advanced Typewriting/PC** 3
- **C. OFAD 1210 Records Management** 2
- **D. OFAD 1211 Proofreading/Editing** 2
- **E. CSCI 1305 Microcomputer Concepts** 3
- **F. OFAD 1331 Word Processing I** 3
- **G. OFAD 1332 Word Processing II** 3
- **H. OFAD 2333 Word Processing III** 3
- **I. CSCI 2305 Integrated Spreadsheet Applications** 3

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.

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 41 for General Education Core requirements

II. Recommended Electives

(11-13 Credit Hours)

- **A. PHIL 1301 Introduction to Philosophy** 3
- **B. PHIL 2303 Logic** 3
- **C. PHIL 2306 Ethics** 3
- **D. PHIL 1304 Comparative Religion** 3
- **E. PSYC 2301 General Psychology** 3
- **F. HDEV 1205 Personal Development** 2
- **G. Foreign Language Sequence I** 4
- **H. Foreign Language Sequence II** 4

IV. Electives

(11 Credit Hours)

- **A. Elective** 3

(Elective must be chosen from discipline outside Philosophy)

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, nonsilver printing and portfolio.

The student can complete a two-year degree program and receive the Associate Degree 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**

(For information about digital photography, see AGDT Certificates, page 46)

1. **General Education Core**
   See page 41 for General Education Core requirements.

2. **Recommended Electives**

   *(11–13 credit hours)*

   A. ARTS 2356 Photography I ........................................... 3
   B. ARTS 2357 Photography II ......................................... 3
   C. ARTS 2370 Photography—Portrayal .............................. 3
   D. ARTS 2371 Contemporary Studies in the Visual Arts—Photography ............................................... 3
   E. ARTS 2372 History of Photography .............................. 3
   F. COMM 1316 Photo Illustration ..................................... 3
   G. COMM 1317 News Photography .................................... 3
   H. DRAM 2366 History of Film Making .............................. 3

3. **Elective**

   *(3 credit hours minimum)*

   A. Elective ........................................................................ 3

   *(Elective must be chosen from discipline outside Photography)*

**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**

1. **General Education Core**
   See page 42 for General Education Core requirements.

2. **Recommended Electives**

   *(11–13 credit hours)*

   A. BIOL 2401 Anatomy and Physiology I .......................... 4
   B. BIOL 2402 Anatomy and Physiology II ........................ 4
   C. PHED 1301 Introduction to Physical Education ................ 3
   D. PHED 1304 Personal Health ........................................... 3
   E. PSYC 2301 General Psychology ...................................... 3
   F. PHED/DANC Any Activity Course ................................. 1–3

3. **Elective**

   *(3 credit hours minimum)*

   A. Elective ........................................................................ 3

   *(Elective must be chosen from discipline outside Physical Education)*
**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 basic A.S. 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 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**

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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 are substitute these higher level math and physics sequences for the A.S. degree.*

A. MATH 2413 Calculus I, 4
B. MATH 2414 Calculus II, 4

Physics: 8 credit hours

*See coordinator/advisor for additional information.*

A. PHYS 2425 College Physics I, 4
B. PHYS 2426 College Physics II, 4

II. Recommended Electives

<table>
<thead>
<tr>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>(11–13 credit hours)</td>
</tr>
<tr>
<td>MATH 1348 Analytic Geometry (General Level), 3</td>
</tr>
<tr>
<td>MATH 2312 Pre-Calculus for Mathematics and Science (General Level), 3</td>
</tr>
<tr>
<td>MATH 2415 Calculus III (College Level), 4</td>
</tr>
<tr>
<td>MATH 2318 Linear Algebra (College Level), 3</td>
</tr>
<tr>
<td>MATH 2320 Differential Equations (College Level), 3</td>
</tr>
<tr>
<td>COSC 1318 Programming Concepts I, 3</td>
</tr>
<tr>
<td>CHEM 1411 General Chemistry I, 4</td>
</tr>
<tr>
<td>CHEM 1412 General Chemistry II, 4</td>
</tr>
<tr>
<td>PHYS 1411 Elementary Astronomy, 4</td>
</tr>
<tr>
<td>ENGL 2311 Technical Writing*, 3</td>
</tr>
</tbody>
</table>

* See ENGL 2311 course description.

III. Electives

(3 credit hours minimum)

A. Elective, 3

*(Elective must be chosen from discipline outside Physics)*

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**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
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
- health care
- 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

<table>
<thead>
<tr>
<th>(11–13 credit hours)</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. CHEM 1411 General Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>B. CHEM 1412 General Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>C. CHEM 2423 Organic Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>D. CHEM 2425 Organic Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>E. BIOL 2401 Anatomy and Physiology I</td>
<td>4</td>
</tr>
<tr>
<td>F. BIOL 2402 Anatomy and Physiology II</td>
<td>4</td>
</tr>
<tr>
<td>G. BIOL 2420 Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>H. PHYS 2425 College Physics I</td>
<td>4</td>
</tr>
<tr>
<td>I. PHYS 2426 College Physics II</td>
<td>4</td>
</tr>
<tr>
<td>J. BIOL 2470 Human Genetics</td>
<td>4</td>
</tr>
<tr>
<td>K. BIOL 2416 Genetics</td>
<td>4</td>
</tr>
<tr>
<td>L. HLSC 1300 Medical Terminology</td>
<td>3</td>
</tr>
<tr>
<td>M. BIOL 1322 Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>N. CHEM 1170 Biochemistry</td>
<td>1</td>
</tr>
</tbody>
</table>

III. Elective

(3 credit hours minimum)

A. Elective

(Elective must be chosen from discipline outside Pre-dental/ Pre-medical)

---

**PRE-LAW**

**A TWO-YEAR ASSOCIATE OF ARTS DEGREE PROGRAM**

**60 CREDIT HOURS REQUIRED TO GRADUATE**

**ABOUT OUR PROGRAM**

A person who aspires to be an attorney may major in any undergraduate curricula. Therefore, there is no set prelaw program. Students are encouraged to complete the General Education Core courses and take electives that encourage independent thought and critical thinking and emphasize writing skills.

**CAREER OPPORTUNITIES**

The completion of the two-year core curriculum is the first of four steps to a career as an attorney. Receipt of a bachelor's degree at a four-year institution, acceptance to and completion of a law degree and passage of the State Bar exam are all required before one can practice law.

**ASSOCIATE OF ARTS DEGREE REQUIREMENTS: PRE-LAW**

I. General Education Core

See page 41 for General Education Core requirements.

II. Recommended Electives

<table>
<thead>
<tr>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. BUSI 1301 Introduction to Business</td>
</tr>
<tr>
<td>B. CRJ 1301 Introduction to Criminal Justice</td>
</tr>
<tr>
<td>C. GEOG 1301 Physical Geography</td>
</tr>
<tr>
<td>D. LECL 1301 Law and Judicial Systems</td>
</tr>
<tr>
<td>E. LEGL 1302 Legal Research</td>
</tr>
<tr>
<td>F. PHIL 1301 Introduction to Philosophy</td>
</tr>
<tr>
<td>G. PHIL 2303 Logic</td>
</tr>
<tr>
<td>H. PHIL 2306 Ethics</td>
</tr>
<tr>
<td>I. PSYC 2301 General Psychology</td>
</tr>
<tr>
<td>J. SOCI 1301 Introduction to Sociology</td>
</tr>
<tr>
<td>K. SPCH 1315 Public Speaking</td>
</tr>
</tbody>
</table>

III. Elective

(3 credit hours)

A. Elective

(Elective must be chosen from discipline outside Pre-law)

---

**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: PSYCHOLOGY**

I. **General Education Core**

*See page 42 for General Education Core requirements.*

II. **Recommended Electives**

(11–13 credit hours)

<table>
<thead>
<tr>
<th></th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>PSYC 2301</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>B.</td>
<td>PSYC 2306</td>
<td>Human Sexuality</td>
<td>3</td>
</tr>
<tr>
<td>C.</td>
<td>PSYC 2314</td>
<td>Life Span Psychology</td>
<td>3</td>
</tr>
<tr>
<td>D.</td>
<td>PSYC 2315</td>
<td>Psychology of Adjustment</td>
<td>3</td>
</tr>
<tr>
<td>E.</td>
<td>PSYC 2316</td>
<td>Psychology of Personality</td>
<td>3</td>
</tr>
<tr>
<td>F.</td>
<td>PSYC 2319</td>
<td>Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>G.</td>
<td>PSYC 2371</td>
<td>Selected Topics in Psychology</td>
<td>3</td>
</tr>
<tr>
<td>H.</td>
<td>SOCI 1301</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>I.</td>
<td>SOCI 1306</td>
<td>Social Problems</td>
<td>3</td>
</tr>
<tr>
<td>J.</td>
<td>SOCI 2301</td>
<td>Marriage and Family</td>
<td>3</td>
</tr>
<tr>
<td>K.</td>
<td>SOCI 2371</td>
<td>Selected Topics in Sociology</td>
<td>3</td>
</tr>
</tbody>
</table>

III. **Electives**

(3 credit hours)

A. Elective (must be chosen from discipline outside Psychology) 3

**REAL ESTATE**

A TWOYEAR 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
- dosing

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 AAS program or the director of articulation and transfer programs.

**ASSOCIATE OF APPLIED SCIENCE DEGREE REQUIREMENTS: REAL ESTATE**

I. **General Education Core**

(22 credit hours)

<table>
<thead>
<tr>
<th></th>
<th>Course Code</th>
<th>Course Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>ENGL 1301</td>
<td>Composition/Rhetoric I</td>
<td>3</td>
</tr>
<tr>
<td>B.</td>
<td>SPCH 1311</td>
<td>Fundamentals of Speech Communication</td>
<td>3</td>
</tr>
<tr>
<td>C.</td>
<td>MATH 1332</td>
<td>Contemporary Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>MATH 1324</td>
<td>PreCalculus for Business/Economics</td>
<td>3</td>
</tr>
<tr>
<td>D.</td>
<td>COSC 1306</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>E.</td>
<td>ECON 1301</td>
<td>Introduction to Economics</td>
<td>3</td>
</tr>
<tr>
<td>F.</td>
<td>HUMA 1301</td>
<td>Introduction to Humanities</td>
<td>3</td>
</tr>
<tr>
<td>G.</td>
<td>PSYC 2302</td>
<td>Applied Psychology</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>PSYC 2301</td>
<td>General Psychology</td>
<td>3</td>
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<tr>
<td>H.</td>
<td>PHED/DANC</td>
<td>Any Activity Course</td>
<td>1</td>
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</tbody>
</table>
II. Technical Program Core
(8 credit hours)
A. BUSI 1301 Introduction to Business .................................. 3
B. ENGL 1302 Composition/Rhetoric II .................................. 3
C. OFAD 1200 Computer Keyboarding .................................. 2

III. Major Courses
(18 credit hours)
A. RLST 1301 Real Estate Principles I .................................. 3
B. RLST 1302 Real Estate Principles II .................................. 3
C. RLST 1305 Real Estate Math .................................. 3
D. RLST 1315 Promulgated Contract Forms .................................. 3
E. RLST 1320 Real Estate Sales and Marketing .................................. 3
F. RLST 2310 Real Estate Finance .................................. 3

IV. Electives
(15 credit hours)
MAJOR—MINIMUM 6 CREDIT HOURS
A. RLST 1310 Real Estate Appraisal .................................. 3
B. RLST 2305 Real Estate Investments .................................. 3
C. RLST 2315 Real Estate Property Management .................................. 3
D. RLST 2320 Real Estate Law .................................. 3
E. RLST 2325 Real Estate Commercial .................................. 3
F. RLST 2330 Real Estate Finance Analysis .................................. 3
G. RLST 2335 Real Estate Brokerage .................................. 3

RELATED—6-9 CREDIT HOURS
A. ACCT 2301 Principles of Accounting I .................................. 3
B. BUSI 1370 Principles of Management .................................. 3
C. BUSI 1374 Personnel Management .................................. 3
D. BUSI 2301 Business Law .................................. 3
E. CSCI 2305 Integrated Spreadsheet Applications .................................. 3
F. MKRT 1316 Sales Management .................................. 3
G. RLST 2101 Real Estate Selected Topics I .................................. 1
H. RLST 2102 Real Estate Selected Topics II .................................. 3
I. SBMT 1300 Small Business Management I .................................. 3
J. SBMT 1310 Principles of Retailing .................................. 3
K. RLST 7300 Cooperative Education I .................................. 3
L. RLST 7305 Cooperative Education II .................................. 3
M. General Course Work as Approved by Coordinator .................................. 3

V. Electives
(3 credit hours)
A. Elective .................................. 3

(Elective must be chosen from discipline outside Real Estate)

REAL ESTATE
CERTIFICATE PROGRAM

CERTIFICATE REQUIREMENTS: REAL ESTATE
(15 credit hours)
A. RLST 1301 Real Estate Principles I .................................. 3
B. RLST 1302 Real Estate Principles II .................................. 3
C. ELECTIVES Select three:
   RLST 1310 Real Estate Appraisal .................................. 3
   RLST 1315 Promulgated Contract Forms .................................. 3
   RLST 1320 Real Estate Sales and Marketing .................................. 3
   RLST 2101 Real Estate Special Topics I .................................. 1
   RLST 2102 Real Estate Special Topics II .................................. 3
   RLST 2305 Real Estate Investments .................................. 3
   RLST 2310 Real Estate Finance .................................. 3
   RLST 2315 Real Estate Property Management .................................. 3
   RLST 2320 Real Estate Law .................................. 3
   RLST 2325 Real Estate Commercial .................................. 3
   RLST 2330 Real Estate Financial Analysis .................................. 3
   RLST 2335 Real Estate Brokerage .................................. 3
   RLST 7300 Cooperative Education I .................................. 3
   RLST 7305 Cooperative Education II .................................. 3

Other course work as approved.

CERTIFICATE REQUIREMENTS: ADVANCED REAL ESTATE
(30 credit hours)
A. RLST 1301 Real Estate Principles I .................................. 3
B. RLST 1302 Real Estate Principles II .................................. 3
C. RLST 1305 Real Estate Math .................................. 3
D. RLST 1310 Real Estate Appraisal .................................. 3
E. RLST 1315 Promulgated Contract Forms .................................. 3
F. RLST 1320 Real Estate Sales and Marketing .................................. 3
G. RLST 2310 Real Estate Finance .................................. 3
H. RLST 2320 Real Estate Law .................................. 3
I. ELECTIVES: Select two:
   RLST 2101 Real Estate Selected Topics I .................................. 1
   RLST 2102 Real Estate Selected Topics II .................................. 3
   RLST 2305 Real Estate Investments .................................. 3
   RLST 2315 Real Estate Property Management .................................. 3
   RLST 2325 Real Estate Commercial .................................. 3
   RLST 2330 Real Estate Financial Analysis .................................. 3
   RLST 2335 Real Estate Brokerage .................................. 3
   RLST 7300 Cooperative Education .................................. 3
   RLST 7305 Cooperative Education .................................. 3

Other course work as approved.
Respiratory Care
A two-year Associate of Applied Science degree program
72–73 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 registry curriculum which is expanded with academic courses.

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 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 courses.

Registry Option
Prerequisite: Completion of the Certification Option with an overall minimum GPA of 2.0, and a minimum GPA of 2.5 for each respiratory care course. Science-related courses minimum GPA of 2.0.

First Year Total = 45
* Not counted toward degree requirements.
** The prerequisite, BIOL 1406, does not count toward degree requirement.

Regency Option
Pre-requisite: Completion of the Certification Option with an overall minimum GPA of 2.0, and a minimum GPA of 2.5 for each respiratory care course. Science-related courses minimum GPA of 2.0.

Second Year Total = 28

I. Pre-Entrance Requirements
A. MATH 1324 Precalculus for Business/Economics ..........3
B. MATH 1314 College Algebra ..........3
B. BIOL 2401 Anatomy and Physiology I ...............4
C. BIOL 2402 Anatomy and Physiology II ..........4

Certification Eligibility Option
II. First Semester
(16 credit hours)
A. COSC 1306 Introduction to Computer Science ..........3
B. RTPP 1010 Respiratory Clinical Practicum ..........4
C. RTPP 1200 Cardiopulmonary Anatomy and Physiology ..........2
D. RTPP 1300 Respiratory Chemistry/Physics ..........3
E. RTPP 1400 Fundamentals of Respiratory Care I ..........4

III. Second Semester
(11 credit hours)
A. RTPP 1015 Respiratory Clinical Practicum II ..........2
B. RTPP 1205 Respiratory Pharmacology ..........2
C. RTPP 1305 Respiratory Pathophysiology ..........3
D. RTPP 1405 Fundamentals of Respiratory Care II ..........4

IV. Third Semester
(5 credit hours)
A. RTPP 1020 Respiratory Clinical Practicum III ..........3
B. RTPP 1210 Critical Care ..........2

V. Fourth Semester
(5 credit hours)
A. RTPP 1025 Respiratory Clinical Practicum IV ..........3
B. RTPP 1215 Neonatal and Pediatric Respiratory Care ..........2

First Year Total = 45

VI. Fifth Semester
(12 credit hours)
A. RTPP 2010 Clinical Practicum V ..........2
B. RTPP 2210 Advanced Respiratory Care I ..........4
C. RTPP 2300 Cardiopulmonary Dynamics ..........3
E. Elective Social or Behavioral Sciences ..........3

VII. Sixth Semester
(16 credit hours)
A. BIOL 2420 Microbiology ..........4
B. ENGL 1301 Composition/Rhetoric I ..........3
C. RTPP 2015 Clinical Practice VI ..........2
D. RTPP 2215 Advanced Respiratory Care II ..........3
E. RTPP 2305 Respiratory Care Clinical Specialties ..........3
F. PHED/DANC Elective (Optional) ..........1

Second Year Total = 28

Back
SOCILOGY
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 41 for General Education Core requirements.

II. Recommended Electives
(11-13 credit hours)
A. SOCI 1301 Introduction to Sociology 3
B. SOCI 1306 Social Problems 3
C. SOCI 2306 Human Sexuality 3
D. SOCI 2301 Marriage and Family 3
E. SOCI 2326 Social Psychology 3
F. SOCI 2319 Minority Studies 3
G. SOCI 2371 Selected Topics in Sociology 3
H. PSYC 2301 General Psychology 3
I. PSYC 2314 Life Span Psychology 3
J. PSYC 2316 Psychology of Personality 3
K. PSYC 2371 Selected Topics in Psychology 3

III. Electives
(3 credit hours)
A. Elective 3
(Elective must be chosen from discipline outside Sociology)

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 paralegal areas to name just a few.

ASSOCIATE OF ARTS DEGREE REQUIREMENTS: SPANISH

I. General Education Core
See page 41 for General Education Core requirements.

II. Recommended Electives
(11-13 credit hours)
A. SPAN 1411 Beginning Spanish I 4
B. SPAN 1412 Beginning Spanish II 4
C. SPAN 2311 Intermediate Spanish I 3
D. SPAN 2312 Intermediate Spanish II 3
E. SPAN 2171 Conversational Spanish I 1
F. SPAN 2172 Conversational Spanish II 1

III. Electives
(3 credit hours)
A. Elective 3
(Elective must be chosen from discipline outside Spanish)
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

See page 41 for General Education Core requirements.

II. Recommended Electives

(11-13 credit hours)

A. COMM 2331 Radio and TV Announcing 3
B. COMM 2332 Radio and TV News 3
C. DRAM 1351 Acting I 3
D. DRAM 1352 Acting II 3
E. SPCH 1144 Forensic Workshop 1
F. SPCH 1311 Fundamentals of Speech Communication 3
G. SPCH 1315 Public Speaking 3
H. SPCH 1318 Interpersonal Communication 3
I. SPCH 1321 Business and Professional Speaking 3
J. SPCH 1371 Advanced Public Speaking 3
K. SPCH 2341 Oral Interpretation 3
L. SPCH 2370 Language and Communication 3
M. Electives

(3 credit hours)

A. Elective 3

(Elective must be chosen from discipline outside Speech Communication)

THEATRE (SEE DRAMA)
### Discipline Coordinators

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Coordinator</th>
<th>Office</th>
<th>Phone</th>
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</thead>
<tbody>
<tr>
<td>Accounting (ACCT)</td>
<td>Leslie Nicar</td>
<td>SCC/J219</td>
<td>881-5842</td>
</tr>
<tr>
<td>Applied Cnphk Design Technology (AGDT)</td>
<td>Michael McGar</td>
<td>SCC/K119</td>
<td>881-5647</td>
</tr>
<tr>
<td>Anthropology (ANTH)</td>
<td>Gary Hodge</td>
<td>SCC/G216</td>
<td>881-5820</td>
</tr>
<tr>
<td>Art (ARTS)</td>
<td>Cathy Cotter</td>
<td>SCC/B131</td>
<td>881-5817</td>
</tr>
<tr>
<td>Biology (BIOL)</td>
<td>David McCulloch</td>
<td>SCC/J225</td>
<td>881-5991</td>
</tr>
<tr>
<td></td>
<td>Nelson Rich</td>
<td>SCC/J223</td>
<td>881-5874</td>
</tr>
<tr>
<td>Business Administration (BUSI)</td>
<td>Michael Voy</td>
<td>CPC/A317</td>
<td>548-6840</td>
</tr>
<tr>
<td>Chemistry (CHEM)</td>
<td>Amina El-Ashmawy</td>
<td>SCC/K226</td>
<td>881-5961</td>
</tr>
<tr>
<td>Child Development (CHDV) and Day Care Administration (CDAD)</td>
<td>Lin Moore</td>
<td>SCC/B175</td>
<td>881-5824</td>
</tr>
<tr>
<td>Communication (COMM)</td>
<td>Shelley Lane</td>
<td>SCC/B108</td>
<td>8815821</td>
</tr>
<tr>
<td>Computer Aided Drafting and Design (CADD, INTD)</td>
<td>Glenn Adams</td>
<td>CPC/A222</td>
<td>548-6834</td>
</tr>
<tr>
<td>Computer Information Systems (CSCI)</td>
<td>Cindy Howry</td>
<td>SCC/J125</td>
<td>881-5838</td>
</tr>
<tr>
<td>Computer Science (COSC)</td>
<td>Cindy Howry</td>
<td>SCC/J125</td>
<td>8815838</td>
</tr>
<tr>
<td>Criminal Justice (CRIJ)</td>
<td>Keith Haley</td>
<td>SCC/B119</td>
<td>881-5984</td>
</tr>
<tr>
<td>Dance (DANC)</td>
<td>Jill Whitson</td>
<td>SCC/B117</td>
<td>881-5913</td>
</tr>
<tr>
<td>Drama (DRAM)</td>
<td>Brad Baker</td>
<td>SCC/C155</td>
<td>881-5679</td>
</tr>
<tr>
<td>Eating Disorders Counselor (EDCC)</td>
<td>Dan Lipscomb</td>
<td>SCC/G225</td>
<td>881-5715</td>
</tr>
<tr>
<td>Economics (ECON)</td>
<td>Jeff Edwards</td>
<td>SCC/G217</td>
<td>8816833</td>
</tr>
<tr>
<td>Electronic Technology (ELAT)</td>
<td>John Baltzer</td>
<td>CPC/A223</td>
<td>548-6876</td>
</tr>
<tr>
<td>Electronics Engineering Technology (ELET)</td>
<td>Jeff Baltzer</td>
<td>CPC/A223</td>
<td>548-6876</td>
</tr>
<tr>
<td>Emergency Medical Services (EMTP)</td>
<td>Jeff Jones</td>
<td>CPC/B308</td>
<td>548-6848</td>
</tr>
<tr>
<td>Engineering (ENCR)</td>
<td>Glenn Adams</td>
<td>CPC/A222</td>
<td>5486834</td>
</tr>
<tr>
<td>English—Developmental (ENCL)</td>
<td>Shirley McBride</td>
<td>SCC/J218</td>
<td>881-5675</td>
</tr>
<tr>
<td>English (ENCL)</td>
<td>Sherill Cobb</td>
<td>SCC/B193</td>
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<tr>
<td>English as a Second Language (ESLC, ESLC, ESLR, ESLW)</td>
<td>Peggy Breedlove</td>
<td>SCC/G203</td>
<td>881-5703</td>
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<tr>
<td>Fire Science (FISC)</td>
<td>Pat McAuliff</td>
<td>CPC/A219</td>
<td>548-6837</td>
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<td>French (FREN)</td>
<td>Chris Grooms</td>
<td>SCC/H210</td>
<td>8815952</td>
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<td>Geography (CEOC)</td>
<td>Gary Hodge</td>
<td>SCC/G216</td>
<td>8815820</td>
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<td>Geology (GEOL)</td>
<td>Michael Broyles</td>
<td>SCC/J139</td>
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<td>Pam Justice</td>
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German (GERM)
Chris Grooms  
Government (GOVT)
Loren Miller  
Health Science
Jean Helgeson  
History (HIST)
David Cullen  
Sam Tullock  
Horticulture/Landscape Technology (HORT)
Kevin Starnes  
Human Development (HDEV)
Mary McRae  
Humanities (HUMA)
Rodney Boyd  
Japanese (JAPN)
Chris Grooms  
Legal Assistant (LEGL)
P. Dee Roessler  
Management (MGMT)
Russell Kunz  
Marketing (MKRT)
Gloria Cockerell  
Mathematics—Developmental (MATH)
Judy Matlock  
Mathematics (MATH)
Doug Proffer  
Music (MUSI)
Michael Crawford  
Nursing (NURS)
Vivian Lilly  
Office Administration (OFAD)
Pat DeGeeter  
Philosophy (PHIL)
Janet Schriver  
Photography (ARTS)
Byrd Williams  
Physical Education, Health (PHED)
Susan Evans  
Physics (PHYS)
Michael Broyles  
Pam Justice  
Psychology (PSYC)
Dan Lipscomb  
Barbara Lusk  
Physical Science (PHYS)
Pam Justice  
Reading—Developmental (READ)
Edelín Rubino  
Real Estate (RLST)
Patricia Banta  
Respiratory Care (RTTP)
Steve DeWees  
Russian (RUSS)
Chris Grooms  
Sociology (SOCI)
Gary Hodge  
Small Business Management (SBMT)
Gloria Cockerell  
Spanish (SPAN)
Estelita Young  
Speech Communication (SPCH, COHM)
Shelley Lane  

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CCCC has incorporated Texas' Common Course Numbering into this year's catalog. Some of the categories that CCCC previously used to describe courses have been reorganized to match the new system. Some of these reorganizations include:

For Photography, see both Arts/Photography and Communication
For Political Science, see Government
For CAD (Interior Design only), see Interior Design
For Dance, see Dance
For Physical Education, see Health/Physical Education
For Theatre, see Drama
For Speech, see both Speech and Communication
For Journalism, see Communication

ACCOUNTING

ACCT 1370 Elementary Accounting (ACCT 131)
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 2301 Principles of Accounting I (ACCT 191)
Concepts and applications of measuring and analyzing financial information for business entities. Topics include the accounting cycle, current assets, long-term assets and the preparation of financial statements. Lab required. 3 credit hours.

ACCT 2302 Principles of Accounting II (ACCT 192)
Concepts and applications of measuring and interpreting financial information for partnerships and corporations. Topics include cost data, budgeting and financial report analysis for use by management and third parties. Prerequisite: ACCT 2301 and COSC 1306. Lab required. 3 credit hours.

ACCT 2370 Managerial Accounting (ACCT 193)
Preparation and interpretation of accounting data used in management planning, decisionmaking and administrative control. Topics include product costing budgeting accounting controls and analytical techniques. Prerequisite: ACCT 2302. Lab required. 3 credit hours.

ACCT 2372 Intermediate Accounting I (ACCT 194)
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 2302. Lab required. 3 credit hours.

ACCT 2373 Intermediate Accounting II (ACCT 195)
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 2372. Lab required. 3 credit hours.

ACCT 2375 Auditing (ACCT 196)
Introduction to auditing theory and practice. Topics include an introduction to professionalism, the general technology of auditing, audit program applications and reporting responsibilities. Prerequisite: ACCT 2302. Lab required. 3 credit hours.

ACCT 2377 Individual Income Taxation (ACCT 291)
History and the structure of federal income tax legislation and law as it pertains to individuals. Emphasis on current tax laws, preparation of tax returns and/or specific tax problems. Prerequisite: ACCT 2301. Lab required. 3 credit hours.

ACCT 2378 Corporate Income Taxation (ACCT 292)
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 2302. Lab required. 3 credit hours.
Acct 2380 Accounting Ethics (Acct 295)
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: Acct 2302 or consent of instructor. 3 credit hours.

Acct 7300 Cooperative Education II (Acct 700)
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.

Applied Graphic Design Technology
(Also See Arts and Photography)
Acct 1300 Survey of Applied Graphic Design Technology (Adv 190) (Old Title: 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.

Acct 1310 Introduction to Computer Graphics (Adv 140)
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 and text tools, terminology, technology, keyboard familiarization, mouse use, software function and access. Lab required. 3 credit hours.

Acct 1315 Computer Typography (Adv 143)
Introduction to typography using the computer as the main tool. Exploration and definition of type, type design, beginning type manipulation and rendering. Prerequisite: Acct 1310. Lab required. 3 credit hours.

Acct 1320 Introduction to Electronic Imaging (Adv 142)
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: Acct 1310. Lab required. 3 credit hours.

Acct 1325 Visual Communications I (Adv 287)
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: Arts 1311. Lab required. 3 credit hours.

Acct 1326 Visual Communications II (Adv 201)
Intermediate level graphic design course. Emphasis is on photo-ready production skills (traditional and computer), comp production, creative ads, marker skills, storyboards and logo design. Prerequisite: Acct 1325. Lab required. 3 credit hours.

Acct 1330 Beginning Illustration (Adv 288)
An introduction to conceptual visualization of ideas. Techniques of black and white dry and wet media are explored with emphasis on concept, light and value, line, and communication. Practical knowledge of illustration will be gained through real work assignments, class discussion and guest lecturers from the industry. Prerequisite: Arts 1316. Lab required. 3 credit hours.

Agdt 1331 2D Computer Illustration (Adv 231) (Old Title: 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: Acct 1310 and Acct 1330. Lab required. 3 credit hours.

Agdt 1340 Storyboard and Script Design
Introduction to course in conceptualization, structure, visualization and design of storyboards and scripts for various media, animation, video, audio and multimedia authoring for graphic designers. Prerequisite: Acct 1325 and Acct 1330. Co-requisite: Acct 1345. 3 credit hours.

Agdt 1345 Artist Conceptualization for Interface Design
This introductory course will provide a forum for artistic conceptualization through which students will be introduced to many different types of interfaces, physical and virtual. Interface design is critical to the development of human interactive media presenting unique and complicated problems to multimedia designers. This new field will require the talents of graphic designers, photographers, illustrators and video directors. Prerequisite: Acct 1330, Acct 1331, and Acct 1325. Co-requisite: Acct 1340 and 1350. Lab required. 3 credit hours.

Agdt 1350 Introduction to Multimedia Authoring (Adv 144)
Introduction to multimedia, principles, theories, systems and applications. Exposure and experience in all major authoring software, lectures by leading multimedia developers, and work on continuing multimedia projects. Prerequisite: Acct 1310. Lab required. 3 credit hours.

Agdt 1351 Interactive Multimedia Authoring (Adv 238)
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: Acct 1315 and 1350. Lab required. 3 credit hours.
AGDT 1300 Color Theory for Digital Media
Introduction to color theory with emphasis on color as it relates to non-print display, calibration, pixel properties, light mixing and additive vs. subtractive theory. Exploration of digital media: digital photography, video, multimedia and delivery platforms. Co-requisite: AGDT 1320. Lab required. 3 credit hours.

AGDT 2320 Image Processing (ADV 232)
Continuation of Introduction to Electronic Imaging. AGDT 1320. 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: AGDT 1320. Lab required. 3 credit hours.

AGDT 2330 Illustration (ADV 292)
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: AGDT 1330. Lab required. 3 credit hours.

AGDT 2331 Advanced 2D Computer Illustration (ADV 296)
More advanced work in computer illustration, including color. Prerequisites: AGDT 2330 and AGDT 2322. Lab required. 3 credit hours.

AGDT 2332 3D Computer Illustration (ADV 289)
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: AGDT 1320 and AGDT 1330. Lab required. 3 credit hours.

AGDT 2335 2D Computer Animation (ADV 236)
Various aspects of two dimensional animation with latest software. Students will develop concepts, storyboards and produce a two dimensional animation with music and soundtrack. Prerequisite: AGDT 1331. Lab required. 3 credit hours.

AGDT 2336 Advanced 2D Computer Animation
Advanced work in two dimensional computer animation continued from AGDT 2335. Further development of animated graphics and art with music and soundtrack for video, film, broadcast or multimedia. Prerequisite: AGDT 2335. Lab required. 3 credit hours.

AGDT 2340 3D Computer Animation (ADV 237)
Introduction to three dimensional animation using high-end 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.

AGDT 2341 Advanced 3D Computer Animation
Advanced work in three dimensional animation continued from AGDT 2340. Further development of photo realistic three dimensional animated images with music and soundtrack for artistic visualization, advertising, video, film, broadcast or multimedia. Prerequisite: AGDT 2340. Lab required. 3 credit hours.

AGDT 2345 Professional Practices (ADV 294)
Introduction to the world 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: Consent of instructor. Lab required. 3 credit hours.

AGDT 2357 Special Topics in Applied Graphic Design Technology
Current developments in the rapidly changing field of graphic design technology are studied. May be repeated as topics vary. Prerequisite: Will vary based on topics covered and will be annotated in each semester's class schedule. Lab required. 3 credit hours.
ACDT 2390 Special Topics in Applied Graphic Design Technology II
Current developments in the rapidly changing field of graphic technology are studied. May be repeated as topics vary. Prerequisite: Will vary based on topics covered and will be annotated in each semester's class schedule. Lab required. 3 credit hours.

ACDT 7300 Cooperative Education (ADV 700)
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.

ANTH 2351 Cultural Anthropology (ANTH 151)
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.

ARTS (Also see AGDT and Photography)

ARTS 1301 Art Appreciation (ART 190)
Introduction to the visual arts, emphasizing the understanding and appreciation of art. 3 credit hours.

ARTS 1303 Art History I (ART 295)
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.

ARTS 1304 Art History II (ART 296)
Survey of art history from the Renaissance 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.

ARTS 1311 Design I (ART 191)
Introduction to two-dimensional visual organization dealing with basic elements and principles of design. Exploration of black and white, color and a variety of media. The experience in this class will prepare the student for composition in painting, drawing and other two-dimensional courses. Lab required. 3 credit hours.

ARTS 1312 Design II (ART 192)
A study of three-dimensional design problems. Prerequisite: ARTS 1311. Lab required. 3 credit hours.

ARTS 1316 Drawing I (ART 193)
An introduction to drawing including space, form, line, contour, gesture, texture, value and composition. The student will learn observational skills in order to render the subjects of still life, figure, perspective and landscape more accurately. Emphasis will be placed on technique, imagination and use of a variety of materials. Lab required. 3 credit hours.

ARTS 1317 Drawing II (ART 194)
Continued study of space, form, line, contour, gesture, texture, value and composition in still life, figure, perspective and landscape. Use of color will be introduced in various media. Emphasis will be placed on imagination, technique, development of a personal drawing style and composition. Prerequisite: ARTS 1316. Lab required. 3 credit hours.

ARTS 1325 Art for Elementary Educators (ART 249)
Art for elementary educators. Includes projects in drawing, painting, printing, crafts and sculpture. Lab required. 3 credit hours.

ARTS 1370 Problems in Contemporary Art-Selected Topics (ART 195)
Creative Solutions—Experimental Printmaking
Manipulating photographic images using processes from the graphic arts, printing and computer imaging fields combined with traditional art media techniques. Prerequisite: ARTS 1311. Required lab included. 3 credit hours.

Creative Solutions—Mixed Media
An introduction to contemporary solutions in mixed media painting. Prerequisites: ARTS 2315 and ARTS 2317. Required lab included. 3 credit hours.

Women in the Arts
Women as artists and Art! Women as collectors and patrons! Explore the influence of women on the visual arts through a brief historical survey and by examining the art and lives of contemporary women. 3 credit hours.

ARTS 2311 Design III/Color Theory (ART 196)
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 inks and color photography. Prerequisite: ARTS 1311 and ARTS 1316. Lab required. 3 credit hours.

ARTS 2316 Painting I (ART 291)
Introduction to painting including use of materials, techniques, color study and composition. Various painting styles will be practiced. Prerequisite: ARTS 1316. Lab required. 3 credit hours.
ARTS 2317 Painting II (ART 292)
Intermediate-level course designed to increase the student's ability to use various techniques, color and composition using acrylics, oil and other media. Realistic and abstract approaches to painting will be explored. Emphasis will be placed on design, imagination, personal expression and painting style. Prerequisite: ARTS 2316. Lab required. 3 credit hours.

ARTS 2323 Life Drawing (ART 297)
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: ARTS 1317. Lab required. 3 credit hours.

ARTS 2326 Sculpture II (ART 281)
A study of three-dimensional form, including basic methods of modeling, construction and simple casting procedures. Prerequisite: ARTS 1312. Lab required. 3 credit hours.

ARTS 2327 Sculpture II (ART 282)
Application of the principles of three-dimensional form with an emphasis in creative expression. Prerequisite: ARTS 2326. Lab required. 3 credit hours.

ARTS 2333 Printmaking I (ART 285)
Introduction to the process of intaglio and relief printing. Prerequisite: ARTS 2333. Lab required. 3 credit hours.

ARTS 2334 Printmaking II (ART 286)
Continuation of Printmaking I with an emphasis on creative expression. Prerequisite: ARTS 2333. Lab required. 3 credit hours.

ARTS 2336 Fibers I—Papermaking (ART 298)
Investigates the problems of two and three-dimensional design with emphasis on individual expression and creativity. Basic papermaking and elementary dyeing processes explored. Lab required. 3 credit hours.

ARTS 2337 Fibers II—Loom Weaving (ART 299)
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: ARTS 2336. Lab required. 3 credit hours.

ARTS 2346 Ceramics I (ART 283)
Introduction to ceramic design, including hand building, potter's wheel and glazing and firing techniques. Lab required. 3 credit hours.

ARTS 2347 Ceramics II (ART 284)
Continuation of Ceramics I with further study in clay and glaze composition and kiln operation with an emphasis on creative expression. Prerequisite: ARTS 2346. Lab required. 3 credit hours.

ARTS 2366 Watercolor I (ART 293)
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: ARTS 1316. Lab required. 3 credit hours.

ARTS 2367 Watercolor II (ART 294)
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: ARTS 2366. Lab required. 3 credit hours.

ARTS 7300 Internship
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: ARTS 1311, 1316, 1317, 1303 and 1304. 3 credit hours.

Biology

Biol 1322 General Nutrition (HLSC 191)
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.

Biol 1406 General Biology I (BIOL 191)
For science majors. Current knowledge in the fundamentals of biology. Will develop concepts in cellular structure and function from the molecular to the organism level. General topics covered include basic biochemistry, metabolism, energetics, molecular and cellular biology, DNA and genetics; viruses and bacteria; evolution and ecology. Laboratory correlates with lecture topics. Lab required. 4 credit hours.

Biol 1407 General Biology II (BIOL 192)
For science majors. Continuation of Biology 1406. The biology of the protistans, fungi, plants and animals with emphasis on the study of biological systems including animal organ systems, immunity, reproduction, development, diversity, inter- and intraspecies behavior of animals. Dissection of invertebrates and a mammal are included. Laboratory correlates with lecture topics. Prerequisite: Biol 1406. Lab required. 4 credit hours.
BIOL 1408 INTRODUCTION TO BIOLOGY I (BIOL 151)
For non-science majors. Survey of biology including molecular and cellular biology, genetics, DNA, microbiology, evolution and ecology. 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 per week, two lab hours per week and one recitation hour per week. Lab and recitation required. 4 credit hours.

BIOL 1409 INTRODUCTION TO BIOLOGY II (BIOL 152)
For non-science majors. Continuation of Biology 1408. The biology of protists, fungi, plants, animals (with emphasis on general human anatomy and physiology) and animal behavior. Current topics in biology and medicine will be discussed. Students will meet three lecture hours per week, two lab hours per week and one recitation hour per week. Prerequisite: BIOL 1408. Lab and recitation required. 4 credit hours.

BIOL 1411 GENERAL BOTANY (BIOL 281)
The study of structure and function of plant cells, tissues and organs. An evolutionary survey and life histories of these representative groups: algae, fungi, mosses, 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 1407. May be taken concurrently with BIOL 1407 if BIOL 1406 has been completed. Lab required. 4 credit hours.

BIOL 1470 MARINE BIOLOGY (BIOL 153)
Morphological, physiological and ecological adaptations of marine organisms to their environment. Prerequisite: BIOL 1408 or 1406, SCUBA certification and consent of instructor. BIOL 1408 or BIOL 1407 is preferred. Lab required, including an international field trip. 4 credit hours.

BIOL 1471 HUMAN ANATOMY AND PHYSIOLOGY (BIOL 155)
A one-semester course for non-science majors in the structure and function of the human body. Discussion of the body systems, including neuroendocrine, integumentary, musculoskeletal, digestive, urinary, reproductive and circulatory, will be accompanied by discussion of diseases of each system. Prerequisite: BIOL 1408 or 1406. Lab required. 4 credit hours.

BIOL 2401 ANATOMY AND PHYSIOLOGY I (BIOL 291)
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 1406. Lab required. 4 credit hours.

BIOL 2402 ANATOMY AND PHYSIOLOGY II (BIOL 292)
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 and immune systems, urinary system, reproduction and human development. Laboratory includes correlated physiological experiments and continued mammalian dissection. Prerequisite: BIOL 2401. Lab required. 4 credit hours.

BIOL 2416 GENETICS (BIOL 294)
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. Includes field trips to genetic laboratories. Prerequisite: BIOL 1407. Lab required. 4 credit hours.

BIOL 2418 INVERTEBRATE ZOOLOGY (BIOL 283)
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 1407. Lab required. 4 credit hours.

BIOL 2420 MICROBIOLOGY (BIOL 293)
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 2401. Co-requisite: BIOL 2402. Lab required. 4 credit hours.

BIOL 2428 VERTEBRATE ZOOLOGY (BIOL 284)
Classification, anatomy, physiology, development, ecology and natural history of the vertebrate animals with emphasis on comparative evolution. Prerequisite: BIOL 1407. Lab required. 4 credit hours.

BIOL 2470 HUMAN GENETICS (BIOL 264)
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. Includes field trips to genetic laboratories. Prerequisite: BIOL 1407. May be taken concurrently with BIOL 1407 if BIOL 1406 has been completed. Credit will not be given for both BIOL 2470 and BIOL 2416. Lab required. 4 credit hours.
**Biol 7300 Internship**
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.

**Business Administration**

**Busi 1301 Introduction to Business (BSAD 121)**
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.

**Busi 1307 Personal Finance (BSAD 124)**
Personal financial issues are covered. Topics include financial planning, insurance, budgeting, credit, home ownership, savings and tax problems. Lab required. 3 credit hours.

**Busi 1370 Principles of Management (BSAD 122)**
The process of management is examined. The functions of planning, organizing, and controlling are covered. Emphasis is on management philosophy, decisionmaking, policy formulation, communications, and motivation. Lab required. 3 credit hours.

**Busi 1372 Supervisory Management (BSAD 125)**
Designed to instill a balanced quantitative/qualitative (high-touch) approach to management. The theories of Taylor, Fayol, Maslow, Mayo, Herzberg, Likert, etc. all are explored. The challenges and opportunities presented by accelerated technological change are discussed. Effective leadership skills (time management, stress management, negotiation, assertiveness, 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.

**Busi 1374 Personnel Management (BSAD 222)**
Study of principles and procedures in the management of employees. Topics include selection, placement, compensation, working conditions, training, labor relations and government regulations. Prerequisite: Busi 1301, Busi 1305 or SBMT 1300. 3 credit hours.

**Busi 1376 International Business (BSAD 225)**
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.

**Busi 2301 Business Law (BSAD 123)**
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.

**Busi 2370 Quality and Leadership (BSAD 233)**
Examines the theoretical and conceptual foundation of total quality management while establishing a basis for managing cultural diversity. Complete analysis will include creating the means for organizational change that will allow for a more effective workforce and a greater quality of work life. 3 credit hours.

**Busi 2372 Organizational Behavior (BSAD 228)**
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.

**Busi 2374 Labor Management Relations (BSAD 231)**
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.

**Busi 2376 Strategic Management (BSAD 232)**
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: Busi 1370. 3 credit hours.

**Busi 2378 Selected Topics in Personnel Management (BSAD 297)**
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.

**Busi 2379 Selected Topics in Business Principles (BSAD 298)**
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 talent. 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.

**Busi 7300 Cooperative Education I (BSAD 700)**
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.
BISI 7305 Cooperative Education II (BSAD 705)
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 1170 Biochemistry (CHEM 193)
Biochemistry is a seminar course for science majors exploring topics of catabolism and anabolism with excursion into areas of current biochemical investigations. Prerequisite: BIOL 1406 and CHEM 1411. Lab required. 1 credit hour.

CHEM 1405 Introduction to Chemistry (CHEM 151)
Survey of chemistry for non-science majors including scientific calculations, chemical equations, theory of atoms and bonding states of matter, nuclear chemistry, elementary thermodynamics and acid-base chemistry. Prerequisite: high school algebra or equivalent. Lab and recitation required. 4 credit hours.

CHEM 1407 Introduction to Chemistry II (CHEM 152)
Continuation of CHEM 1405 including organic chemistry, biochemistry, nutritional and consumer chemistry. Prerequisite: CHEM 1405. Lab and recitation required. 4 credit hours.

CHEM 1411 General Chemistry I (CHEM 191)
A classical chemistry course designed for science majors, premedical, dental or engineering students. Topics include stoichiometry, ideal gas behavior, atomic theory, periodic trends, VSEPR theory, thermochemistry and bonding theory. Laboratory exercises demonstrate concepts presented in class and develop basic lab skills. Prerequisite: 1 year of high school chemistry or CHEM 1405; MATH 1314. Lab and recitation required. 4 credit hours.

CHEM 1412 General Chemistry II (CHEM 192)
A continuation of CHEM 1411 that addresses topics in chemical equilibria, acid-base theory, solubility, electrochemistry, nuclear chemistry, organic chemistry, biochemistry and states of matter. Laboratory exercises demonstrate concepts presented in lecture and develop more advanced lab methods. Prerequisite: CHEM 1411. Lab and recitation required. 4 credit hours.

CHEM 2423 Organic Chemistry I (CHEM 291)
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 1412. Lab and recitation required. 4 credit hours.

CHEM 2425 Organic Chemistry II (CHEM 292)
A continuation of CHEM 2423 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 2423. Lab and recitation required. 4 credit hours.

CHEM 7300 Internship
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.

CHILD DEVELOPMENT

CHDV 1300 Early Childhood Development (0-3 yrs.) (CHDV 151)
Comprehensive study of growth and development from conception through three years of age. Emphasis on cognitive, language, emotional and social development. Lab required. 3 credit hours.

CHDV 1301 Early Childhood Development (3-5 yrs.) (CHDV 152)
Comprehensive study of growth and development from three years through five years of age. Emphasis on cognitive, physical, emotional and social development. Lab required. 3 credit hours.

CHDV 1302 Child Development (5-12 yrs.) (CHDV 160)
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 1305 Early Childhood Fundamentals (CHDV 161)
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 1310 Nutrition, Health and Safety (CHDV 154)
Practical experience and information on the nutritional, health and safety needs of the young child. Students earn CPR certificates during this course. Lab required. 3 credit hours.

CHDV 1315 Child Guidance (CHDV 251)
Study of effective methods of guiding young children with 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 1300, CHDV 1301, CHDV 1305 or permission of instructor. 3 credit hours.
CHDV 1320 Child Abuse Prevention (CHDV 252)
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 1325 Early Childhood Programs and Services (CHDV 153)
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 2100 Selected Topics in Child Development * (CHDV 297)
Current topics in the field of Child Development will be studied. May be repeated for credit as topics vary. Lab required. 1 credit hour.

CHDV 2300 Infant and Toddler Materials and Activities Development (CHDV 159)
Appropriate experiences for infants and toddlers including learning activities, materials and teaching techniques. Prerequisite: CHDV 1300. Lab required. 3 credit hours.

CHDV 2305 Parents and the Caregiver (CHDV 257)
Explores relationships between care givers and parents of young children. Focuses on parental involvement, effective relationship building techniques and communication skills. Prerequisite: CHDV 1300 or CHDV 1301 and CHDV 1315 or permission of instructor. Lab required. 3 credit hours.

CHDV 2310 Practicum A (CHDV 157)
Application of learning experiences through participation as an assistant teacher or assistant administrator in the Child Development Laboratory School. Prerequisite or co-requisite: CHDV 2400 or CHDV 2401 for Early Childhood Educator majors; CHDV 2315 or CHDV 2316 for Early Childhood Administration majors. Permission of instructor required. Lab required. 3 credit hours.

CHDV 2311 Practicum B (CHDV 158)
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 2310. Permission of instructor required. Lab required. 3 credit hours.

CHW 2315 Administration of Early Childhood Programs (CHDV 253)
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 2316 Organization and Management of Early Childhood Programs (CHDV 254)
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 2398 Internship (CHDV 255)
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 2400 Material and Activities Development I (CHDV 155)
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 2401 Material and Activities Development II (CHDV 156)
Nature, World of People and the Arts: The interrelationships among science, social science and creativity in the arts is studied as it applies to the total development of the young child. Activities, content, methods and materials are explored. Lab required. 4 credit hours.

CHDV 7300 Cooperative Education (CHDV 256)
A course designed to integrate on-campus study with practical hands-on experience. The student, the student's supervisor and the instructor will establish a set of five specific goals for student to accomplish. Also requires an average of one hour per week of lecture. Prerequisites: see discipline coordinator for a list of prerequisites. 3 credit hours.

COMM 1307 Introduction to Mass Communication (JOUR 151)
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.

COMM 1316 Photo Illustration (PHO 290)
Problems and practices of photographers in news photography and in advertising. Single, multiple and electronic flash will be studied and put to use. Emphasis on lighting, large format cameras and product photography. Prerequisite: ARTS 2356 or consent of instructor. Lab required. 3 credit hours.
COMM 1317 News Photography (PHO 291)
Problems and practices of photographers on newspaper and magazine news publications. Shwiting under different lighting and using flash and electronic flash will be studied. Emphasis on work under pressure and highspeed processing. Prerequisite: ARTS 2356. Lab required. 3 credit hours.

COMM 1336 Television Production (SPCM 155)
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.

COMM 1336 Television Production (SPCM 155)
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.

COMM 1317 Survey of Recording Techniques I (COMM 150)
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 2311 News Gathering and Writing I (JOUR 152)
Extensive practice in writing various stories in the areas of international, national and local news, sports, business, lifestyles, etc. Prerequisite: ENGL 1302 or consent of instructor. Lab required. 3 credit hours.

COMM 2315 News Gathering and Writing II (JOUR 153)
Continuation of COMM 2311 with emphasis on more advanced reporting techniques such as complex stories, follow-up stories, features and profiles. Prerequisite: COMM 2311. Lab required. 3 credit hours.

COMM 2324 Survey of Recording Techniques II (COMM 151)
Continuation of COMM 1371, studying advanced recording studio techniques and practical application of basic skills. Prerequisite COMM 1371. Lab required. 3 credit hours.

COMM 2331 Radio and TV Announcing (SPCM 295)
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 1315.3 credit hours.

COMM 2332 Radio/Television News (SPCM 296)
The preparation and analysis of news styles for the electronic media. Prerequisite or Co-requisite: SPCM 1315.3 credit hours. COMM 7300 Internship 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.

COMM 7300 Internship
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.

Computer Aided Drafting & Design
CADD 1301 Computer Graphics System (GIS 121)
Basic computer systems used in drafting and design applications. Hardware and software operations including booting, displays, files, commands, defaults, input-output, disks, printers, plotters, precision, utilities and data bases. 3 credit hours.

CADD 1302 Technical Graphics I (CAD 151)
Use of instruments, applied geometry, engineering lettering, orthographic projections, dimensioning, pictorial drawing and sketching, sectional views and working drawings. Lab required. 3 credit hours.

CADD 1303 Technical Graphics II (CAD 152)
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: CADD 1302. Lab required. 3 credit hours.

CADD 1304 Computer Aided Drafting (CAD 153)
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: CADD 1301. Lab required. 3 credit hours.
CADD 2301 Technical Illustration (CAD 220)
Applications of computer graphics in the field of technical illustrations. Students will learn how to produce axonometric and perspective drawings on a CAD system, which will be suitable for use in such areas as desktop publishing, commercial advertising and technical publications. Concepts in animation, rendering and 3-D modeling will be introduced. Prerequisite: CADD 1301 or CADD 1304. Lab required. 3 credit hours.

CADD 2302 Computer Aided Design (CAD 221)
An advanced course in design applications. Students will complete actual design projects in the architectural, mechanical, avil, electronics, graphics or manufacturing fields of study. May be repeated for credit. Prerequisite: CADD 1304. Lab required. 3 credit hours.

CADD 2305 Electronic PCB Drafting (CAD 231)
Focuses on drawings used in the electronics industry. Topics include block and logic diagrams, schematic diagrams, interconnecting wire diagrams, taping printed circuit boards, integrated circuits, component packaging and current practices. Lab required. 3 credit hours.

CADD 2306 Descriptive Geometry (CAD 232)
Study of points, lines and planes in space with application of various technologies. Prerequisite: CADD 1303. Lab required. 3 credit hours.

CADD 2307 Manufacturing Processes (CAD 235)
Study of the characteristics of industrial materials and the processes employed in their conversion. The areas covered are sheet metal, machined parts and castings. Prerequisite: CADD 1302. Lab required. 3 credit hours.

CADD 2308 NC Programming (CAD 236)
NC Programming will provide students with basic conceptual knowledge about the fundamentals of NC Programming and basic understanding of various NC Programming languages. Prerequisite: CADD 2307. Lab required. 3 credit hours.

CADD 2309 Computer Integrated Manufacturing (CAD 237)
Systematic introduction of the aspects of Computer Integrated Manufacturing technology. This course includes software examples, practical case studies and simulation techniques. Prerequisite: CADD 2307. Lab required. 3 credit hours.

CADD 2310 Printed Circuit Board Design (CAD 240)
This course develops skills in the design of double-sided and multi-layer printed circuit boards. Students design boards from schematics, parts lists and manufacturing specifications. Some boards are designed for manual parts insertion and taped artworks. Others are designed for automatic parts insertion and digitized inputs for artworks. Prerequisite: CADD 2305. Lab required. 3 credit hours.

CADD 2311 Advanced Printed Circuit Board Design (CAD 243)
Continuation of CADD 2310. Students will be designing power supply boards, shielding and denser PCB designs. Multi-layer board design concepts will be introduced. Prerequisite: CADD 2310, CADD 1304. Lab required. 3 credit hours.

CADD 7300 Cooperative Education I (CAD 700)
A course designed to integrate oncampus 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. 3 credit hours.

CADD 7305 Cooperative Education II (CAD 705)
A course designed to integrate oncampus 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: CADD 7300. 3 credit hours.

CADD 7310 Cooperative Education III (CAD 710)
A course designed to integrate oncampus, 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: CADD 7305. 3 credit hours.

Computer Information Systems

CSCI 1305 Microcomputer Concepts (CIS 128)
Introduction to microcomputers emphasizing Disk Operating Systems (DOS) and Windows. Lab required. 3 credit hours.
CSCI 1320 BASIC Programming (CIS 130)
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: COSC 1306; or CSCI 1305; or consent of instructor. Lab required. 3 credit hours.

CSCI 1330 RPG Programming (CIS 140)
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.

CSCI 2305 Integrated Spreadsheet Applications (CIS 220)
Introduction to solving business problems using LOTUS 123 by Lotus Dev. Corp. Student will be required to produce spreadsheet, database and graphic documents. Prerequisite: CSCI 1305 or COSC 1306, or consent of instructor. Lab required. 3 credit hours.

CSCI 2310 Database Applications (CIS 230)
Concepts and techniques for solving business problems using dBASE IV by Borland Corp. Emphasis is on database design, custom reports, file management and application creation. Prerequisite: CSCI 1305 or COSC 1306 or consent of instructor. Lab required. 3 credit hours.

CSCI 2315 Desktop Publishing (CIS 225)
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: CSCI 1305, OFAD 1331. Lab required. 3 credit hours.

CSCI 2330 COBOL I (CIS 200)
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: CSCI 1320. Lab required. 3 credit hours.

CSCI 2331 COBOL II (CIS 205)
Continuation of CSCI 2330 with emphasis placed on advanced techniques, disk accessing and storage, direct and sequential access, and console input and output. Programs studied are complex and varied and are designed to employ all features available on the computer. Prerequisite: CSCI 2330. Lab required. 3 credit hours.

CSCI 2335 Data Structures for Business (CIS 210)
This course emphasizes the file structure to solve computer problems. The student will use a language to develop methods of searching and sorting sequential and direct access file systems. Concepts of stacks, queues, the linked list, and data collision and resolution techniques will be applied to data files. Prerequisite: One programming language. Lab required. 3 credit hours.

CSCI 2340 Systems Analysis and Design (CIS 222)
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.

CSCI 2345 Information Systems Management (CIS 224)
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.

CSCI 2350 Computer Operating Systems (CIS 245)
An introduction to operating systems theory and concepts. Topics include computer hardware, software and their interaction, single-user vs. multiple-user systems, MS-DOS, UNIX and JCL. Prerequisite: One programming language, COSC 1306 or CSCI 1305. Lab required. 3 credit hours.

CSCI 2355 Networking and Telecommunications (CIS 235)
This course reviews data, text, graphics and voice communications technology and their applications. Included is vocabulary, configuration of local networks, modems, rates and standards. An overview of protocols is given. Prerequisite: CSCI 1305 or COSC 1306 or consent of instructor. Lab required. 3 credit hours.

CSCI 2390 Special Topics in Computer Information Systems I (CIS 297)
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.

CSCI 2395 Special Topics in Computer Information Systems II (CIS 298)
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.
CSCI 7300 COOPERATIVE EDUCATION I (CIS 700)
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 a 1 hour weekly seminar. 3 credit hours.

CSCI 7305 COOPERATIVE EDUCATION II (CIS 705)
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: CSCI 7300. 3 credit hours.

COMPUTER SCIENCE
COSC 1306 INTRODUCTION TO COMPUTERS (CPSC 150)
Study of basic hardware components and major software applications. Topics emphasized in labs include introduction to DOS commands, Wordperfect, dBASE IV, Lotus 1-2-3 and elementary programming using BASIC language. Lab required. 3 credit hours.

COSC 1317 SCIENTIFIC PROGRAMMING (CPSC 292)
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 1316. Lab required. 3 credit hours.

COSC 1318 PROGRAMMING CONCEPTS I (CPSC 190)
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 1314, CSCI 1306; or consent of instructor. Lab required. 3 credit hours.

COSC 1320 C PROGRAMMING (CPSC 135)
An introduction to fundamental high level programming using the C programming language. Prerequisite: COSC 1306 and one year of structured programming language. Note: This class is not for beginning programmers. Lab required. 3 credit hours.

COSC 2318 PROGRAMMING CONCEPTS II (CPSC 191)
Continuation of COSC 1318. including structured programming, design, data structures, documentation and file processing. Emphasis on creating and modifying larger programs. Prerequisite: CSCI 1318. Lab required. 3 credit hours.

COSC 2325 ASSEMBLY LANGUAGE (CPSC 210)
Study of the architecture of the computer through the use of assembly language programming. Includes study of registers, instruction sets, addressing techniques, machine execution traces, table searching, sorting, file I/O, program linking and macros. Prerequisite: CSCI 1320 or 2318. Lab required. 3 credit hours.

COSC 2333 PL/I PROGRAMMING (CPSC 293)
Introduction to PL/I programming with emphasis on the structured approach to program design using both mathematical and business applications. Prerequisite: COSC 2318. Co-requisite: MATH 1314; CSCI 1306 or consent of instructor. Lab required. 3 credit hours.

COSC 2370 DATA STRUCTURES WITH C (ADVANCED C) (CPSC 213)
Using C language, an in-depth look at records, variant records, enumerated data types, pointers, records, list processing trees, stacks, queues, abstract data types, searching, sorting linked lists, graphs, traversals and recursions. Prerequisite: CSCI 1320. 3 credit hours.

COSC 2372 C++ (CPSC 294)
A study of the principles underlying object oriented programming and design using C++. Prerequisite: CSCI 2370 or consent of instructor. Lab required. 3 credit hours.

COSC 2375 ADVANCED ASSEMBLY LANGUAGE PROGRAMMING (CPSC 233)
Program design and practice with assembly languages, macro definitions, conditioned assembly, advanced I/O, floating point operations. Prerequisite: COSC 2325. Lab required. 3 credit hours.

COSC 2376 LISP PROGRAMMING (CPSC 235)
Syntax and semantics of LISP programming language, style and recursion, tail recursion, algorithm development, list processing techniques. Prerequisite: CSCI 2300. Lab required. 3 credit hours.

COSC 2378 ADA PROGRAMMING (CPSC 225)
Syntax and semantics of Ada language, packages, I/O, encapsulation, tasking, blocks, exceptions, private and generic types. Prerequisite: CSCI 2318. Lab required. 3 credit hour.

COSC 2379 PROGRAMMING IN WINDOWS (CPSC 201)
Programming in a windows integrated development environment using C and Pascal. Topics also include coding for dialogs, buttons, list boxes, edit fields, icons and other resources. Prerequisite: CSCI 1320. 3 credit hours.

COSC 2380 SOFTWARE ENGINEERING (CPSC 221)
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.

COSC 2382 SOFTWARE TECHNIQUES (CPSC 224)
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: CSCI 2380. Lab required. 3 credit hours.
COSC 2383 Computer Networks (CPSC 223)
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.

COSC 2384 Large Scale Operating Systems (CPSC 130)
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: Indepth knowledge of one programming language. 3 credit hours.

COSC 2386 Systems Programming (CPSC 230)
Introduction to systems level operations booting compilers, translators, linkers, loaders, system control and runtime software. Laboratory examples assigned to reinforce principles. Prerequisite: CSCI 2325. 3 credit hours.

COSC 2387 Introduction to Artificial Intelligence (CPSC 236)
Introduction to concepts and ideas in artificial intelligence. Topics will include search techniques, knowledge representation, control strategies and advanced problem-solving architecture. Prerequisite: CSCI 2376. Lab required. 3 credit hours.

COSC 2390 Advanced Topics in Computer Science (CPSC 297)
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.

COSC 2395 Special Topics II (CPSC 298)
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.

COSC 7300 Cooperative Education I (CPSC 700)
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 1301 Introduction to Criminal Justice (CRJS 152)
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 1306 The Courts and Criminal Procedure (CRJS 154)
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.

CRJ 1307 Crime in America (CRJS 151)
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 1310 Fundamentals of Criminal Law (CRJS 153)
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 7300 Internship
A course designed to integrate oncampus study with practical hands-on experience. The student, the student's supervisor and the instructor will establish a set of five specific goals for the student to accomplish. Also requires an average of one hour per week of lecture. Prerequisite or co-prerequisite: CRU 1301 or CRJ 1307. 3 credit hours.

Dance (see also Health and Physical Education)
DANC 1101 Improvisation (HPED 184)
An exploration of movement in dance and design through problem solving activities leading to choreographic studies. 1 credit hour.

DANC 1110 Beginning Tap (HPED 187)
Performance of basic rhythms and techniques fundamental to beginning tap dance. 1 credit hour.
DANC 1122 Folk Dance (HPED 139)
Analysis of cultural backgrounds, costumes and dance techniques leads to participation in a variety of folk dances. 1 credit hour.

DANC 1131 Popular Social Dance (HPED 186)
Practice in contemporary social dances including pop/rock and country western forms. 1 credit hour.

DANC 1141 Beginning Ballet (HPED 137)
Student develops elementary ballet technique and knowledge of terminology through participation in barre, center work and beginning movement combinations; emphasis on alignment. 1 credit hour.

DANC 1142 Intermediate Ballet (HPED 138)
Further practice in ballet technique through participation in barre, center work and basic enchainments. Prerequisite: PHED 1141 or consent of instructor. 1 credit hour.

DANC 1145 Beginning Modern Dance (HPED 133)
An introduction to the art and discipline of modern dance through analysis of dance techniques, exploration and composition development. 1 credit hour.

DANC 1147 Beginning Jazz Dance (HPED 135)
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.

DANC 1148 Intermediate Jazz Dance (HPED 136)
Further practice in jazz movements including intermediate isolations, jumps and turns. Participation in choreographed combinations using moderately complex rhythmic structures. 1 credit hour.

DANC 1151 Dance Performance (HPED 180)
Experience in rehearsal, production and performance. Permission of the instructor is required. 1 credit hour.

DANC 1171 Beginning Aerobic Dance (HPED 130)
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.

DANC 1172 Intermediate Aerobic Dance (HPED 131)
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: DANC 1171 or consent of instructor. 1 credit hour.

DANC 1173 Advanced Aerobic Dance (HPED 132)
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: DANC 1172 or consent of instructor. 1 credit hour.

Drama/Theatre

DRAM 1271 Theatre Practicum—Performance (THEA 190)
A practicum in theatre with emphasis on performance techniques and procedures, including a major performance role in a college play production. May be combined with DRAM 1272, or repeated for a maximum of 6 credit hours. Flexible enrollment. Instructor’s permission required. 1 credit hour.

DRAM 1272 Theatre Practicum—Technical (THEA 191)
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 DRAM 1271 or repeated for a maximum total of 6 credit hours. Flexible enrollment. Instructor’s permission required. 1 credit hour.

DRAM 1310 Introduction to the Theatre (THEA 151)
Various aspects of theatre are surveyed. Emphasis is on types of plays, directing, acting and technical production. Lab required. 3 credit hours.

DRAM 1330 Stagecraft (THEA 185)
The study and application of the visual aesthetics of design which may include the physical theatre, scenery construction and painting, properties, and lighting costumes, makeup and backstage organizations. Lab required. 3 credit hours.

DRAM 1341 Theatrical Makeup (THEA 187)
Introductory study and application of visual aesthetics in theatrical makeup. Students will study fundamentals of stage makeup, character makeup, corrective techniques, beards, mustaches and three-dimensional makeup. Lab required. 3 credit hours.

DRAM 1351 Acting I (THEA 193)
Introduction to the art of acting. Body control, voice, pantomime, interpretation, characterization and stage movement are included. Lab required. 3 credit hours.

DRAM 1352 Acting II (THEA 194)
A continuation of DRAM 1351. Emphasis is on complex characterization, ensemble acting stylized acting and acting in period plays. Prerequisite: DRAM 1351. Lab required. 3 credit hours.

DRAM 1376 Introduction to Costuming (THEA 186)
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.
**DRAM 2331 Stagecraft II (THEA 188)**  
Advanced study and application of visual aesthetics in scene design and stage painting. Prerequisite: DRAM 1330. Lab required. 3 credit hours.

**DRAM 2336 Voice and Diction (THEA 192)**  
Intensive work is provided in the improvement of voice through exercises to develop resonance, range, flexibility, intensity, control of voice. 3 credit hours.

**DRAM 2351 Acting III (THEA 195)**  
Development of advanced specialty skills and techniques of acting including advanced character analysis. Emphasis on mechanics of the body as a tool for the actor. Special focus on advanced physical work in stage fighting, circus skills and stage stunt work. Prerequisite: DRAM 1352. Lab required. 3 credit hours.

**DRAM 2366 History of Film Making (PHO 299)**  
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.

**DRAM 7300 Internship**  
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.

**Eating Disorders**

**EDCC 1300 A Survey of Eating Disorders (EDCC 221)**  
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 1305 Treatment Modalities of Eating Disorders (EDCC 222)**  
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 1300. 3 credit hours.

**EDCC 2300 Medical Aspects of Eating Disorders (EDCC 223)**  
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 1300. 3 credit hours.

**EDCC 2305 Individual Counseling (EDCC 224)**  
Presents an introduction to interviewing, history taking, care giving, listening, intervention and interpretation skills. Includes experience under supervision. Prerequisite: PSYC 2301 or SOCI 1301. 3 credit hours.

**EDCC 2310 Group Processes (EDCC 225)**  
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 2301. 3 credit hours.

**EDCC 2315 Practicum (EDCC 226)**  
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 1305 and permission of instructor. Requires 20 hours per week of field work. 3 credit hours.

**Economics**

**ECON 1301 Introduction to Economics (ECON 121)**  
An introduction to the principles of economics. A study of the economic behavior of consumers, businesses, and government agencies. Economic decision making as used in daily life. 3 credit hours.

**ECON 2301 Principles of Macroeconomics (ECON 291)**  

**ECON 2302 Principles of Microeconomics (ECON 292)**  
Decision-making in the private sector. Markets and prices, demand and supply. Consumer economics. Production, costs and industrial organization. International economics. Current topics. Prerequisite: MATH 0310 and ENGL 0305 or consent of instructor. 3 credit hours.

**ECON 7300 Internship**  
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.
**Electronic Technology**

**ELAT 1315 Basic Digital (ELT 115)**
This course provides a practical study of digital electronic circuits and their applications. The course will progress from basic digital theory to the analysis and design of common circuit applications. Devices covered include logic gates, flip flops, counters, registers and memory functions. Numbering systems and Boolean algebra will be covered and applied to logic circuits. The knowledge gained will be demonstrated in a laboratory environment utilizing digital circuits in laboratory experiments. Lab required. 3 credit hours.

**ELAT 1400 Basic Electronics I (ELT 111)**
This course is the first in a series of courses leading to an Associate of Applied Science degree with a major in electronic technology. No previous knowledge of electronics is required for this course. The topics covered in this course include the following terminology, concepts, basic laws and theories as applied to direct current electronic circuits. Students will be required to perform various laboratory experiments using electronic components and record results in a Technician’s Log. Lab required. 4 credit hours.

**ELAT 1401 Basic Electronics II (ELT 112)**
This course is a continuation of ELAT 1400. The topics covered in this course include the following: terminology, concepts, basic laws and theorems as applied to alternating current electronic circuits. Students will be required to perform various laboratory experiments using electronic components and record results in a Technician’s Log. Lab required. 4 credit hours.

**ELAT 1405 Electronic Fabrication I (ELT 113)**
A basic course in electronic assembly. Topics include component identification, schematic diagrams, soldering principles, wire preparation and harness assembly, terminal connections, inspection and quality control. Lab required. 4 credit hours.

**ELAT 1410 Solid State Devices (ELT 114)**
This course provides a practical study of solid state devices and their applications. The course will progress from basic semiconductor theory to the analysis and design of common circuit applications. Devices covered include diodes, bipolar transistors (BJTs), field effect transistors (FETs), integrated circuits (ICs) and special purpose devices. Circuit applications include basic power supplies, filters, regulators and amplifiers. Specifications and limits of voltage, current and heat dissipation are included. Lab required. 4 credit hours.

**ELAT 1470 Electronic Fundamentals (ELT 110)**
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.

**ELAT 2330 Instrumentation and Telemetry (ELT 209)**
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: ELAT 1401.3 credit hours.

**ELAT 2335 Digital Control Applications (ELT 210)**
Digital principles as applied to microcomputer systems. Logic design, computer structure and organization, number systems conversion, busing and interfacing. Co-requisite: ELAT 1315. Lab required. 3 credit hours.

**ELAT 2340 Power Supply Systems (ELT 211)**
Theory and operation of linear and switching power supplies. Topics covered will be waveform analysis to include pulse characteristics and pulse train measurements, full-wave rectification, filtering and regulation. Prerequisite: ELAT 2425. Lab required. 3 credit hours.

**ELAT 2420 Fundamentals of Electronic Communications (ELT 207)**
The course will provide the advanced student with a review of basic electronic concepts and a comprehensive course in electronic communications. This course will provide the student with information that will be found on the various license and certification tests for electronic technician. The text and lab book will be keyed to the FCC General Radio-telephone License, all classes of the FCC Amateur Radio License, the FCC Marine Operator License and the ISCET Certified Technician’s Exam. Topics covered will pertain to all areas of electronic communications. Lab required. 4 credit hours.

**ELAT 2425 Active Device (ELT 208)**
This course provides a practical study of active devices (semiconductors) and their applications. The course includes composition, parameters and linear and non-linear characteristics in common circuit applications. Devices covered include diodes, bipolar transistors (BJTs), field effect transistors (FETs), integrated circuits (ICs) and special purpose devices. Circuit applications include basic power supplies, regulators, amplifiers, oscillators, filters, timers and electronic switching. Lab required. 4 credit hours.
ELAT 2445 APPLIED ELECTRONIC CIRCUITS (ELT 212)
Electronic circuit applications with considerations in areas of high speed EMI; high speed switching, coupling and decoupling circuits, transmission modes, noise source and types, trans-conductive, measurement techniques. Prerequisite: ELAT 1410. Lab required. 4 credit hours. of mechanical ventilatory care. 3 credit hours.

ELAT 2450 COMPUTER ARCHITECTURE (ELT 213)
This course encompasses architecture, programming and interfacing. Includes a presentation of the more common programmable I/O devices, including 80186/80188 controllers, the 80286, 80386 and the 80486. Detailed coverage of the interface and programming of the 80087 family of arithmetic co-processor. Manufacturers data sheets are used throughout the course to give students experience with industry standards and specifications. Prerequisite: ELAT 1315. Lab required. 4 credit hours.

ELAT 2455 APPLIED COMPUTER PROGRAMMING (ELT 214)
Computer programming techniques using Spice and BASIC to solve problems and demonstrate system operation. The language syntax flowcharting and coding with applications to technical projects is emphasized. Lab required. 4 credit hours.

ELAT 2460 MICROCOMPUTER SYSTEMS (ELT 215)
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.

ELAT 2465 OPTOELECTRONICS (ELT 216)
A comprehensive course on the theory and application of optical electronic devices, arcsuits and fiber optics as they apply to industrial controls, data transmission and telecommunications. Prerequisite: ELAT 1401. Lab required. 4 credit hours.

ELAT 7300 COOPERATIVE EDUCATION I (ELT 700)
A course designed to integrate oncampus classroom study with offcampus 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. 3 credit hours.

ELAT 7305 COOPERATIVE EDUCATION II (ELT 705)
A course designed to integrate oncampus classroom study with offcampus 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: ELAT 7300. 3 credit hours.

ELECTRONICS ENGINEERING TECHNOLOGY

ELET 1400 CIRCUIT ANALYSIS I (EET 151)
Introduction to design principles of electrical/electronic direct current circuits. The course will cover important principles and various analysis techniques for analyzing different circuits. Node analysis, Superposition, KVL, KCL, Thevenin equivalent, Norton equivalent and the Millman equivalent theorems are utilized. This course is an applied mathematics course and includes Cramer’s rule. Prerequisite: MATH 1314. Lab required. 4 credit hours.

ELET 1401 CIRCUIT ANALYSIS II (EET 152)
Continuation of Circuit Analysis I. The information from the first semester course will be applied to alternating current circuits. Additional topics covered for AC circuits are: the effects of frequency and impedance: resonant circuit characteristics and filter networks; troubleshooting techniques coupling networks, transformers. Utilization of standard phaser notation and application of fundamental laws and theorems for network analysis is covered. Prerequisite: ELET 1400, MATH 1316 or concurrent enrollment in MATH 1316. Lab required. 4 credit hours.

ELET 1405 DIGITAL I.C. ANALYSIS (EET 153)
Indepth course in digital circuit analysis, theory, design and troubleshooting. Topics include: numbering systems and codes, logic elements, synchronous sequential logic, IC architecture, chip survey applications, design of memory systems, A/D and D/A converters and survey of peripherals. Lab required 4 credit hours.

ELET 1410 FUNDAMENTALS OF COMPUTERS (EET 154)
Study of microcomputers: how they operate, how they are used, 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: ELET 1405. Lab required. 4 credit hours.

ELET 1415 CIRCUIT ANALYSIS III (EET 250)
The analysis and design of linear devices are studied, while emphasizing their circuit applications. Specifications and limits of voltage, current and heatdissipation are included. Circuits covered include amplifiers, regulators, oscillators, filters, timers and signal processors. Prerequisite: ELET 1401. Lab required. 4 credit hours.
ELET 1440 AC/DC Fundamentals (EET 150)
This introductory course is suitable for both electronic and non-electronic majors who require a solid background in electrical and electronic circuits, components and applications. Students in this course will understand and make use of electronic devices, circuits and systems. This course will be of great value to students who are planning a career in robotics, automotive electronics, manufacturing technology, computer integrated manufacturing technology, automated systems technology, electronic communications and biomedical technology. Lab required. 4 credit hours.

ELET 2325 Computer Interfacing (EET 251)
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: ELET 1410. Lab required. 3 credit hours.

ELET 2380 Selected Topics (EET 290)
An in-depth study of selected topics on current engineering technology practices and procedures. Lab required. 3 credit hours.

ELET 2385 Independent Study (EET 291)
Prerequisite will vary based on topics covered and will be annotated in each semester's class schedule. May be repeated for credit when topics vary. Lab required. 3 credit hours.

ELET 2420 Telecommunications (EET 254)
This course will provide the advanced student with a review of basic electronic concepts and a comprehensive course in electronic telecommunications. This course will provide the student with information that will be required to pass the various license and certification tests for electronic technician. The text and lab book will be keyed to the FCC General Radiotelephone License, all classes of the FCC Amateur Radio License, the FCC Marine Operator License and the ISCET Certified Technician's Exam. Topics covered will pertain to all areas of electronic telecommunications. Lab required. 4 credit hours.

ELET 2430 Computer Maintenance (EET 252)
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 use of factory supplied and technician written diagnostic programs to identify and isolate a faulty device or subsystem. Lab required. 4 credit hours.

ELET 2435 Microwave Fundamentals (En 253)
Introduction to microwave theory and applications, transmitter and receiver. Prerequisite: ELET 1415. Lab required. 3 credit hours.

ELET 7300 Cooperative Education I (ELT 700)
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. 3 credit hours.

ELET 7305 Cooperative Education II (ELT 705)
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: ELET 7300. 3 credit hours.

Emergency Medical Technology
EMTP 1500 Emergency Medical Procedures (EMTP 141)
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 (MAST). Lab and clinical required. 5 credit hours.

EMTP 1800 Paramedic Procedures I (EMTP 221)
One of a series of courses (EMTP 1800, 1500 and 2700) designed to prepare the successful student to take the state examination for Advanced EMT (Paramedic) certification. Department of Transportation (DOT) Modules IV and VII are covered in this course including general pharmacology and the central nervous system. Prerequisite: EMT CERTIFICATION. Lab and clinical required. 8 credit hours.

EMTP 2700 Paramedic Procedures II (EMTP 231)
One of a series of courses (EMTP 1800, 1500 and 2700) designed to prepare the successful student to take the state examination for EMT-Advanced (Paramedic) certification. Department of Transportation (DOT) Modules VI, VIII, IX, X, XI, XII, XIII, XIV and XV are covered including: the cardiovascular system; tissues injuries: musculoskeletal injuries; medical emergencies: obstetric/gynecological emergencies; pediatrics and neonatal transport; management of the emotionally disturbed: rescue techniques; telemetry and communications. Prerequisite: EMT CERTIFICATION. Lab and clinical required. 7 credit hours.
ENGINEERING

ENCR 1304 Engineering Graphics (ENCR 151)
Use of instruments, applied geometry, engineering lettering, orthogonal projections, dimensioning, pictorial drawing and sketching, sectional views and working drawings. Lab required. 3 credit hours.

ENCR 2301 Engineering Mechanics I (ENCR 191)
Vectors, tensors, foundations of mechanics. Motion of particles including momenta, energy, work concepts. Statics including concept of free-body diagrams, friction forces, virtual work. Prerequisite: MATH 2414. 3 credit hours.

ENCR 2302 Engineering Mechanics II (ENCR 192)
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: ENCR 2301.3 credit hours.

ENCR 2332 Materials and Processes (ENCR 291)
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 2301.3 credit hours.

ENCR 2405 Electrical Circuit Analysis (ENCR 292)
Basic principles of R, L and C circuits. Steady state DC and AC signals. Simple transient response. Kirchoff's laws, Ohm's law, Thevenin-Norton equivalence, impedance, nodal, mesh, and loop analysis, and phasers. Laboratory experiments demonstrate basic circuit and network laws and acquaint students with electrical instruments. Lab required. Prerequisite: MATH 2414.4 credit hours.

ENGLISH

ENCL 0300 Developmental Writing I (ENCL 040)
A skills improvement course designed to help the student improve basic writing skills necessary for ENGL 1301. Focus is on paragraph and short essay writing. Basic grammar, punctuation and sentence construction studied as needed. This course may not be used to satisfy the requirements of an associate degree. Lab required. 3 credit hours.

ENGL 0305 Developmental Writing II (ENCL 041)
A skills improvement course designed to help students reach competencies necessary for ENGL 1301. Focus is on advanced paragraph development and medium length essay writing. Critical reading skills, analytical writing and vocabulary building are emphasized. Punctuation and sentence construction studied as needed. Completion of ENGL 0300 or assessment is required. This course may not be used to satisfy the requirements of an associate degree. Lab required. 3 credit hours.

ENCL 0310 Developmental Grammar I (ENCL 050)
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 1301 Composition/Rhetoric I (ENCL 151)
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 1302 Composition/Rhetoric II (ENCL 152)
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 1301. Lab required. 3 credit hours.

ENGL 2307 Creative Writing (ENCL 241)
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 sophomore literature course. Prerequisite: ENGL 1302.3 credit hours.

ENCL 2311 Technical Writing (ENCL 291)
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 1302. Note: Students in certain technical programs may be admitted to this course with a prerequisite of ENGL 1301 and consent of English coordinator and dean. This course does not satisfy CCCC requirements for a sophomore literature course. No lab required. 3 credit hours.

ENCL 2322 British Literature I (ENCL 253)
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 1302.3 credit hours.

ENCL 2323 British Literature II (ENCL 254)
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 1302.3 credit hours.
ENCL 2327 American Literature I (ENCL 255)
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 1302. 3 credit hours.

ENGL 2328 American Literature II (ENGL 256)
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 1302. 3 credit hours.

ENCL 2332 World Literature I (ENCL 257)
Introduces the student to a variety of literary histories beginning with the classical Greek period through the 16th century. The students will read representative selections, analyze and discuss philosophies, societal mores, social milieus and social concerns. Prerequisite: ENGL 1302. 3 credit hours.

ENCL 2333 World Literature II (ENGL 258)
Introduces the student to a variety 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 milieus and social concerns. Prerequisite: ENGL 1302. 3 credit hours.

ENCL 2371 Forms of Literature I (ENCL 251)
A study of short stories, novels and non-fiction. Analysis and evaluation of major writers in these genres, their techniques and their contributions to our literary heritage. Prerequisite: ENGL 1302. 3 credit hours.

ENCL 2372 Forms of Literature II (ENCL 252)
A study of poetry and drama, and a study of mythology as it relates to these genres. Analysis and evaluation of our classical heritage, the origins of drama and development of contemporary drama and film, and the elements and types of poetry. Prerequisite: ENGL 1302. 3 credit hours.

ENCL 7300 Internship
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: ENGL 1302. Note: Students in certain technical programs may be admitted to this course with a prerequisite of ENGL 1301 and consent of dean and English coordinator. 3 credit hours.

ENGLISH AS A SECOND LANGUAGE
ESLC 0300 ESL Listening-Conversation (ESLC 061)
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: Placement through the ESL assessment. Lab required. 3 credit hours.

ESLC 0305 ESL Listening-Conversation (ESLC 062)
This course is a continuation of ESLC 0300 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: Placement through the ESL assessment. Lab required. 3 credit hours.

ESLC 0310 ESL Listening-Conversation (ESLC 063)
This course is a continuation of ESLC 0300 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: Placement through the ESL assessment. Lab required. 3 credit hours.

ESLC 0300 ESL Grammar (ESLC 061)
This course is designed to teach basic English grammar to speakers of other languages. This course may not be used to satisfy the requirements for an associate degree. Prerequisite: Placement through the ESL assessment. Lab required. 3 credit hours.

ESLR 0305 ESL Grammar (ESLR 062)
This course is a continuation of ESLR 0300 and is designed to teach intermediate-advanced English grammar to speakers of other languages. This course may not be used to satisfy the requirements for an associate degree. Prerequisite: Placement through the ESL assessment. Lab required. 3 credit hours.

ESLR 0300 ESL Reading (ESLR 061)
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: Placement through the ESL assessment. Lab required. 3 credit hours.

ESLR 0305 ESL Reading (ESLR 062)
This course is a continuation of ESLR 0300 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: Placement through the ESL assessment. Lab required. 3 credit hours.
ESLW 0305 ESL Reading (ESLR 061)
This course is a continuation of ESLW 0300 and is designed
to develop competencies in writing in the English language. Its purpose is to prepare students to communicate through written words. This course may not be used to satisfy the requirements for an associate degree. Prerequisite: Placement through the ESL assessment. Lab required. 3 credit hours.

ESLW 0300 ESL Writing (ESLR 062)
This course is a continuation of ESLW 0305 and is designed
to develop competencies in writing in the English language. The purpose of this course is to prepare students to communicate through written words. This course may not be used to satisfy the requirements for an associate degree. Prerequisite: Placement through the ESL assessment. Lab required. 3 credit hours.

ESLW 0305 ESL Writing (ESLR 063)
This course is a continuation of ESLW 0300 and is designed
to develop competencies in writing in the English language. Its purpose is to prepare students to communicate through written words. This course may not be used to satisfy the requirements for an associate degree. Prerequisite: Placement through the ESL assessment. Lab required. 3 credit hours.

Fire Science

FISC 1013 Firefighter Certification III (FISC 137)
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. An in-depth study of fire suppression principles and techniques. Prerequisite: FISC 1011. Lab required. 2 credit hours.

FISC 1014 Firefighter Certification IV (FISC 138)
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 fire protection and rescue procedures, structure fire salvage and overhaul techniques and the operations of automatic sprinklers. Prerequisite: FISC 1013. Lab required. 2 credit hours.

FISC 1015 Firefighter Certification V (FISC 139)
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, fire protection planning, bomb search investigations, emergency management operations and community relations. Prerequisite: FISC 1014. Lab required. 3 credit hours.

FISC 1016 Firefighter Certification VI (FISC 140)
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 1015 or approval from fire science discipline coordinator. Lab required. 1 credit hour.

FISC 1305 Fundamentals of Fire Protection (FISC 106)
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 1310 FIRE PREVENTION (FISC 112)
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 1315 FIRE SAFETY EDUCATION (FISC 116)
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 1320 FIRE ADMINISTRATION II (FISC 141)
In-depth study of the organization and management as related to a fire department including budgeting, maintenance of records and reports, and management of fire department officers. Personnel administration and distribution of equipment and personnel and other related topics, including relation of various government agencies to fire protection areas. Fire service leadership as viewed from the company officer’s position. 3 credit hours.

FISC 1325 INDUSTRIAL FIRE PROTECTION II (FISC 121)
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 1330 FIRE PROTECTION SYSTEMS (FISC 117)
A study of basic building 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 1335 BUILDING CODES AND CONSTRUCTION (FISC 131)
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 1340 FIRE CAUSE AND ORIGIN DETERMINATION (FISC 133)
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 1450 FIREFIGHTING TACTICS AND STRATEGY (FISC 148)
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 problem solving related to fire ground decision making and attack tactics and strategy. Use of mutual aid and large scale command problems. Lab required. 4 credit hours.

FISC 2100 SEMINAR (FISC 296)
Designed to keep students informed on a variety of fire ground techniques developed to address problems encountered during fire suppression operations. May be repeated for credit. 1 credit hour.

FISC 2305 CHEMISTRY OF HAZARDOUS MATERIALS II (FISC 125)
Study of chemical characteristics and behavior of various materials that burn or react violently related to storage, transportation, handling hazardous materials, i.e., flammable liquids, combustible solids and gases. Emphasis on emergency situations and the most favorable methods of handling fire fighting and control. 3 credit hours.

FISC 2310 CHEMISTRY OF HAZARDOUS MATERIALS II (FISC 225)
Hazardous materials covering storage, handling, laws, standards and fire fighting techniques associated with chemicals, gases, flammable liquids, corrosives, poisons, explosives, rocket propellants and exotic fuels, and radioactive materials. The formation of toxic fumes and health hazards is also stressed. Ignition and combustion characteristics of gases, liquids and solids related to free-burning fire and explosion phenomena. Familiarization with radiological instruments, human exposure to radiation, decontamination procedures, common uses of radioactive materials and operational procedures. Prerequisite: FISC 2305. 3 credit hours.
An experience throughout the course of instruction. Prerequisite: FISC 2315. An introduction to the tactics used to correct problems encountered at hazardous materials incidents including: diking drum/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. Prerequisite: FISC 2310. 3 credit hours.

FISC 2320 FIRE ADMINISTRATION II (FISC 241)
Study to include insurance rates and ratings; preparation of budgets, administration and organization of training in the fire department, water requirements, fire alarm and communication systems; importance of public relations, report writing and record keeping, measurements of results, use of records to improve procedures and other related topics; legal aspects relating to fire prevention and fire protection with stress on municipal and state agencies: design and construction of fire department buildings. 3 credit hours.

FISC 2325 FIRE SERVICE COMPUTER APPLICATIONS (FISC 230)
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 (TXFIRS) software and the associated data analysis programs. Students will have extensive "hands-on" experience throughout the course of instruction. Lab required. 3 credit hours.

FISC 2330 INTRODUCTION TO CAMEO (COMPUTER-AIDED MANAGEMENT OF EMERGENCY OPERATIONS) (FISC 240)
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 2305. Lab required. 3 credit hours.

FISC 2335 METHODS OF FIRE SERVICE INSTRUCTION (FISC 229)
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.

FREN 1100 FRENCH CONVERSATION I (FREN 293)
Intensive practice in conversational French. Prerequisite: FREN 1412 or consent of discipline coordinator. Co-requisite: FREN 2311. 1 credit hour.

FREN 1110 FRENCH CONVERSATION II (FREN 294)
A continuation of French 1100. Prerequisite: FREN 1100. Co-requisite: FREN 2312. 1 credit hours.

FREN 1411 BEGINNING FRENCH I (FREN 191)
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 1412 BEGINNING FRENCH II (FREN 192)
A continuation of French 1411. Prerequisite: French 1411. Lab required. 4 credit hours.

FREN 2303 FRENCH LITERATURE I (FREN 295)
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 2312. 3 credit hours.

FREN 2304 FRENCH LITERATURE II (FREN 296)
A continuation of French 2303. A survey of French literature in the nineteenth and twentieth centuries with reading from representative writers such as Hugo, Baudelaire and Camus. Prerequisite: FREN 2312. 3 credit hours.

FREN 2311 INTERMEDIATE FRENCH I (FREN 291)
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 1412 or consent of discipline coordinator. Co-requisite: FREN 1100. 3 credit hours.

FREN 2312 INTERMEDIATE FRENCH II (FREN 292)
A continuation of French 2311. Prerequisite: FREN 2311. Co-requisite: FREN 1100. 3 credit hours.

GEOGRAPHY

GEOG 1301 PHYSICAL GEOGRAPHY (CEOC 151)
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.

CEOC 1302 CULTURAL GEOGRAPHY (GEOG 152)
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.
GEOG 1303 World Regional Geography (GEOG 153)
A study of major developed and developing regions with emphasis on the awareness of prevailing world conditions and developments, including emerging conditions and trends, and the awareness of diversity of ideas and practices to be found in those regions. Lab required. 3 credit hours.

GEOL 1401 Earth Science (PSCI 154)
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.

GEOL 1403 Physical Geology (GEOL 191)
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 1404 Historical Geology (GEOL 192)
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 1403 or consent of instructor. 4 credit hours.

GEOL 2409 Rocks and Minerals Identification (GEOL 193)
The chemistry, classification, crystallography, identification and occurrence of minerals. The formation, classification and identification of igneous, sedimentary and metamorphic rocks will also be covered. This course is intended primarily for geology majors. Prerequisite: GEOL 1403. Lab required. 4 credit hours.

GEOL 7300 Internship
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.

GERM 1100 Conversational German I (GERM 293)
Intensive practice in conversational German. Prerequisite: GERM 2311 or consent of discipline coordinator. Co-requisite: GERM 2311. 1 credit hour.

GERM 1110 Conversational German II (GERM 294)
Continuation of German 1100, intensive practice in conversational German. Prerequisite: GERM 1100. Corequisite: GERM 2312. 1 credit hour.

GERM 1411 Beginning German I (GERM 191)
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 1412 Beginning German II (GERM 192)
Continuation of GERM 1411 with an emphasis on the reading of elementary texts. Prerequisite: GERM 1411 or equivalent. Lab required. 4 credit hours.

GERM 2311 Intermediate German I (GERM 291)
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 1412 or consent of discipline coordinator. Co-requisite: GERM 1100.3 credit hours.

GERM 2312 Intermediate German II (GERM 292)
Continuation of German 2311. Prerequisite: GERM 2311. Co-requisite: GERM 1110.3 credit hours.

GOVERNMENT
COW 2301 American Government I (PLSC 261)
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 252 or Political Science 261.) Lab required. 3 credit hours.

COW 2302 American Government II (PLSC 262)
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 or Political Science 262.) Lab required. 3 credit hours.
GOVT 2304 INTRODUCTION TO POLITICAL SCIENCE (PLSC 155)
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 a bachelor degree. Lab required. 3 credit hours.

COW 7300 INTERNSHIP
A course designed to integrate oncampus study with practical hands-on experience. The student, the student's supervisor and the instructor will establish a set of five specific goals for the student to accomplish. Also requires an average of one hour per week of lecture. Prerequisite or corequisite: GOVT 2301 or GOVT 2302. 3 credit hours.

HEALTH SCIENCE
HLSC 1300 MEDICAL TERMINOLOGY (HLSC 132)
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.

HISTORY
HIST 1301 U.S. HISTORY I (HIST 151)
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 1301 and HIST 1302 fulfill the Texas legislative requirement for 6 credit hours of history for baccalaureate degrees. Lab required. 3 credit hours.

HIST 1302 U.S. HISTORY II (HIST 152)
History of the United States from 1877 to the present day. Focus is on the development of American society in the twentieth century; response to the urban/industrial environment, the United States as a world power and post-World War II society. This course and HIST 1301 fulfill the Texas legislative requirement for 6 hours of history for baccalaureate degrees. Lab required. 3 credit hours.

HIST 2301 HISTORY OF TEXAS (HIST 253)
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. Lab required. 3 credit hours.

HIST 2311 WESTERN CIVILIZATION I (HIST 251)
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 2312 WESTERN CIVILIZATION II (HIST 252)
Continuation of History 2311. 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 2370 STUDIES IN U.S. HISTORY (HIST 297)
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: 6 semester hours of history. Lab required. 3 credit hours.

HIST 2371 ADVANCED STUDIES IN U.S. HISTORY (HIST 298)
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: 6 semester hours of history. Lab required. 3 credit hours.

HIST 7300 INTERNSHIP
A course designed to integrate oncampus study with practical hands-on experience. The student, the student's supervisor and the instructor will establish a set of five specific goals for the student to accomplish. Also requires an average of one hour per week of lecture. Prerequisite or corequisite: 6 semester hours of history. Lab required. 3 credit hours.

HORTICULTURE/LANDSCAPE TECHNOLOGY
HORT 1100 HORTICULTURE AND LANDSCAPE TECHNOLOGY SEMINAR (HLT 296)
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: HORT 1300 and concurrent enrollment in another HORT course at CCCC. 1 credit hour.
HORT 1200 THE LANDSCAPE INDUSTRY
The study of the landscape industry as a whole, including the introduction to landscape design, construction and management and general plant care. Special attention is focused on preparing students to take the Certified Landscaper Professional exam administered by the Texas Association of Landscape Contractors. (Please note that other requirements may apply to the sitting of an individual.) There are no prerequisites for this course. Lab required. 2 credit hours.

HORT 1225 IRRIGATION SYSTEMS (HLT 220)
A comprehensive study of irrigation systems including equipment, design and performance. Includes residential and commercial applications. Prerequisite: HORT 1300 or consent of instructor. Lab required. 2 credit hours.

HORT 1300 BASIC HORTICULTURE (HLT 190)
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.

HORT 1305 SOILS AND PLANT NUTRITION (HLT 125)
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 macroorganisms in the soil. Prerequisite: HORT 1300. Lab required. 3 credit hours.

HORT 1310 PLANT PESTS AND CONTROLS (HLT 126)
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: HORT 1300. Lab required. 3 credit hours.

HORT 1315 INTERIOR PLANTS (HLT 117)
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: HORT 1300 or consent of instructor. Lab required. 3 credit hours.

HORT 1320 TURF-GRASS SCIENCE AND MANAGEMENT (HLT 140)
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.

HORT 1330 NATIVE PLANTS OF TEXAS (HLT 115)
A nonmajors 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.

HORT 1335 PLANTS OF NORTH TEXAS (HLT 116)
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.

HORT 1400 WOODY PLANT MATERIALS (HLT 191)
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: HORT 1300. Lab required. 4 credit hours.

HORT 1401 HERBACEOUS PLANT MATERIALS (HLT 192)
The study of non-woody ground covers and vines, and annual and perennial flowers cultivated or collected for use in the landscape industry. Prerequisite: HORT 1300. Lab required. 4 credit hours.

HORT 2300 INTRODUCTION TO LANDSCAPE DESIGN (HLT 210)
An introductory course covering the history, basic design skills, graphic communication, site planning and the elements of landscape design. Prerequisite: HORT 1300. Lab required. 3 credit hours.

HORT 2305 FLORICULTURE (HLT 275)
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: HORT 2430. Lab required. 3 credit hours.

HORT 2315 LANDSCAPE MANAGEMENT (HLT 260)
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: HORT 1300, 1400 and 1401. Lab required. 3 credit hours.

HORT 2320 FIELD EXPERIENCE (HLT 290)
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: HORT 1300, 1400, 1401 and/or consent of the coordinator. 3 credit hours.
HORT 2400 Site Analysis and Surveying (HLT 230)
Analyzing a site to determine existing structures, plants, grades and potential problems. Emphasis on surveying, measurement and the mapping of existing conditions. Includes correct record keeping and area measurement. Prerequisite: HORT 1300. Lab required. 4 credit hours.

HORT 2405 Landscape Construction (HLT 225)
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: HORT 1300, 1400, 1401. Lab required. 4 credit hours.

HORT 2410 Landscape Business Operations (HLT 235)
Detailed study of the structure of the landscape business including cost estimating, organization, equipment 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: HORT 1300. Lab required. 4 credit hours.

HORT 2415 Arboriculture (HLT 270)
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: HORT 1300, 1310. Lab required. 4 credit hours.

HORT 2420 Home Landscape Design (HLT 211)
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: HORT 2300. Lab required. 4 credit hours.

HORT 2425 Plant Propagation (HLT 265)
The principles and practices of sexual and asexual plant propagation, including grafting, budding, layering, cuttings and seed germination. Soil mixes, plant structures and the equipment and facilities for proper plant propagation discussed. Introduction to tissue culture. Prerequisite: HORT 1300, 1400, 1401. Lab required. 4 credit hours.

HORT 2500 Practicum (HLT 293)
Intensive on-the-job training during a continuous 10 week 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. 5 credit hours.

HORT 7300 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.

Human Development
HDEV 0100 College Success Skills (HDEV 030)
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 CCCC. (This course may not be used to satisfy the requirements of an associate degree.) 1 credit hour.

HDEV 0200 Study Skills (HDEV 010)
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 study skills enhancing the rate of learning. (This course may not be used to satisfy the requirements of an associate degree.) 2 credit hours.

HDEV 1200 Career Planning and Development (HDEV 103)
Career choices will be explored in relation to interests, values, skills and abilities. Career assessment and exploration of occupational opportunities will be studied through group and independent study activities. Long and short range career development strategies will be established. Computerized career guidance will be explored on campus. 2 credit hours.

HDEV 1205 Personal Development (HDEV 105)
Designed to help the student increase self-esteem, set personal goals that lead to greater motivation and success, and to develop a satisfying lifestyle. Components of a healthy lifestyle will be explored. Problems concerning college survival, educational goals, motivation, interpersonal relationships, and societal influences and personal roles will be explored. 1 credit hour.
HDEV 1300 Developing Leadership Potential (HDEV 102)
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.

HUMA 1301 Introduction to the Humanities (HUM 151)
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.

HUMA 7300 Internship
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.

INTERIOR DESIGN (Computer Aided Drafting and Design)
INTD 1301 Applied Interior Design I (IND 121)
Provides information in planning interior floor plans an elevations with consideration to traffic flow and room functions. Included is planning of traditional as well as contemporary interiors, multiple design solutions, coordination of schemes, styles and furnishings ranging from the single dwelling to the business and recreational complex. Prerequisite: CADD 1301 and ARTS 1316. 3 credit hours.

INTD 2302 Applied Interior Design II (IND 221)
Will apply knowledge and skills from INTD 1301 to advanced solutions to special problems of commercial and residential interiors, working drawings, specifications and client/designer communications. Prerequisite: INTD 1301. 3 credit hours.

INTD 2303 Applied Interior Design III (IND 222)
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: INTD 2302. Lab required. 3 credit hours.

INTD 7300 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.

JAPANESE
JAPN 1411 Beginning Japanese I (JAPN 191)
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 1412 Beginning Japanese II (JAPN 192)
A continuation of JAPN 1411. Prerequisite: JAPN 1411. Lab required. 4 credit hours.

JOURNALISM (see COMMUNICATION/ SPEECH/PHOTOGRAPHY)

LEGAL ASSISTANT
LEGL 1301 Law and Judicial Systems (LEGL 131)
An introduction to the history of American law, law of evidence, civil and criminal procedure, and to various areas of both civil and criminal substantive law. Study of various personnel in the legal field, the unauthorized practice of law and legal ethics. Lab required. 3 credit hours.

LEGL 1302 Legal Research (LECL 132)
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 1305 Law Office Management (LEGL 135)
Ethical considerations, office organization, specialized bookkeeping and accounting for attorneys, fees and billing procedures, scheduling and calendaring, management of personnel, proofreading, management of investigations and file preparation, legal drafting, management and organization procedures for specialized areas of law, special considerations with respect to attorney’s trust account, preparation of law office forms, checklists and tiles, and disbursement on behalf of clients. 3 credit hours.

LECL 2301 Civil Procedure (LEGL 230)
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 (interrogatories, 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.

LECL 2303 Family Law (LECL 251)
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 2304 Wills, Trusts and Probate (LEGL 252)
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 2306 Business Organizations (LEGL 261)
The legal structure of business organizations: corporations, joint stock companies, common law contracts, professional associations, proprietorships, limited partnerships and partnerships. 3 credit hours.

LEGL 2307 Tort and Insurance Law (LEGL 262)
Fundamental principles of the law of tort and insurance. Includes a study of the research and investigation techniques necessary for tort and insurance negotiation, settlement and litigation. 3 credit hours.

LEGL 2308 Business Legal Environment (LEGL 264)
Role of law in business and society, legal reasoning, sources of law, social policy and legal institutions, antitrust, security regulations, consumer protection, environmental law, worker health and safety, employment discrimination, etc. 3 credit hours.

LEGL 7300 Cooperative Education (LEGL 700)
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 required one hour per week of lecture. 3 credit hours.

MARKETING

MRKT 1300 Fashion Marketing (MRKT 122)
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 1305 Principles of Marketing (MRKT 228)
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 1310 Principles of Advertising (MRKT 227)
Introduction to the principles, practices and media of persuasive communication. Topics include buyer behavior, use of media and ad agency operations. 3 credit hours.

MRKT 1315 Principles of Selling (MRKT 222)
Students learn and practice selling techniques including outside and inside sales, telemarketing, presentations, reaching decision makers, closing sales, after-sale evaluations, and understanding buyers and consumers. 3 credit hours.

MRKT 1316 Sales Management (BSAD 226)
Leadership skills are studied, as they apply to understanding and managing sales personnel. Labs allow practice in selling, giving presentations, solving problems particular to sales settings and sales personalities, and internal reward systems. 3 credit hours.

MRKT 1320 Fashion Design (MRKT 126)
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 from an industrial point of view. Custom design, design for mass, line production, coordination, selection, color and texture are covered. There is no sewing involved in this course. 3 credit hours.

MRKT 1325 Fashion Buying (MRKT 220)
Covers the responsibilities of a buyer. Sources of buying information, selection of fashion merchandise, methods of inventory, elements of profit, pricing, markup and markdown are studied. Economic issues relating to domestic versus offshore apparel goods are researched. 3 credit hours.

MRKT 2300 Fashion Show Production (MRKT 225)
Production of an actual fashion show, including lighting, community involvement, marketing, modeling, apparel selection, set design, crew organization, election of primary target market. Offered only in spring semesters. 3 credit hours.

MRKT 2305 Market Research (MRKT 221)
Research techniques applied to problems of measuring market and sales potential, allocation of territories, demand for goods, consumer purchasing power, sales forecasts. Students learn use of library and other secondary sources, survey research and design of questionnaires, fundamentals of sampling and data analysis. 3 credit hours.

MRKT 2310 Promotion Techniques (MRKT 224)
Methods in 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. Prerequisite: MRKT 1305, 1310 or consent of instructor. 3 credit hours.

MRKT 2315 Business Ethics (MRKT 223)
Ethical implications of current 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 both buyers and sellers. 3 credit hours.
MRKT 2320 International Marketing (MRKT 226)
Introduction to marketing in an international, multicultural environment. Emphasis on cultural, corporate, and political differences and interactions in business milieu internationally. 3 credit hours.

MRKT 2330 Marketing Special Topics (MRKT 297)
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 7300 Cooperative Education I (MRKT 700)
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 7305 Cooperative Education II (MRKT 705)
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 7300. 3 credit hours.

MATHEMATICS

MATH 0115 Introductory Geometry (MATH 070)
An introductory course in plane and solid geometry recommended for students who have not passed the TASP geometry mathematics requirement and required for students who have not passed high school geometry and plan to take college algebra or trigonometry. This course may not be used to satisfy the requirements for an associate degree. Prerequisite: MATH 0305 or equivalent. Lab required. 1 credit hour.

MATH 0300 Developmental Math (MATH 010)
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.

MATH 0305 Developmental Algebra (MATH 020)
Review of signed numbers, expressions, equations, inequalities, polynomials, radicals, exponents, quadratics and graphing. This course may not be used to satisfy the requirements for an associate degree. Prerequisite: MATH 0300 or equivalent. Lab required. 3 credit hours.

MATH 0310 Intermediate Algebra (MATH 030)
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 0305 or one year of standard high school algebra within the last three years. Lab required. 3 credit hours.

MATH 1314 College Algebra (MATH 181)
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 or equivalent within the last three years and one year of high school geometry or Math 0115. 3 credit hours.

MATH 1316 Trigonometry (MATH 182)
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 1324 Pre-Calculus for Business and Economics (MATH 151)
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 1325 Calculus for Business and Economics (MATH 152)
A continuation of MATH 1324; a study of finite differential calculus, finite integral calculus, including exponential and logarithmic functions, functions of several variables and basic differential equations. Prerequisite: MATH 1324 within the last three years. Lab required. 3 credit hours.

MATH 1332 Contemporary Mathematics (MATH 150)
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.
MATH 1342 Statistics (MATH 153)
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 1348 Analytic Geometry (MATH 183)
Study of lines, distance, conics, transformation of coordinates, polar coordinates, parametric equations and other selected topics. Prerequisite: MATH 1314 and 1316 or 4 years of standard high school math within the last three years. 3 credit hours.

MATH 2312 Pre-Calculus for Mathematics and Science (MATH 187)
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, transformation of coordinates, rotation 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 2318 Linear Algebra (MATH 292)
Study of linear equations, matrices, real vector spaces, linear transformations and eigenvectors. Prerequisite: MATH 2414 within the last three years. 3 credit hours.

MATH 2320 Differential Equations (MATH 293)
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 2414 within the last three years. 3 credit hours.

MATH 2413 Calculus I (MATH 191)
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 1348 or MATH 2312 or equivalent (high school analysis or precalculus) within the last three years. Lab required. 4 credit hours.

MATH 2414 Calculus II (MATH 192)
Study of calculus of inverse functions, hyperbolic functions, applications of integration, techniques of integration, infinite series, parametric equations and polar functions. Prerequisite: MATH 2413 within the last three years. Lab required. 4 credit hours.

MATH 2415 Calculus III (MATH 291)
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 2414 within the last three years. Lab required. 4 credit hours.

MATH 7300 Internship
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.

Music

MUSI 1116 Aural Skills II (MUSI 152)
Skills include sight-singing, ear training and keyboard harmony. Corequisite: MUSI 1311. 1 credit hour.

MUSI 1117 Aural Skills III (MUSI 154)
Skills of sight-singing ear-training and keyboard harmony are further developed. Prerequisite: MUSI 1116. Corequisite: MUSI 1312. 1 credit hour.

MUSI 1131 Ensemble (MUSI 170)
Small instrumental ensembles. Membership is through audition by the appropriate director. This course may be repeated for credit. 1 credit hour.

MUSI 1159 Minor Vocal Ensembles (MUSI 180)
Any minor vocal ensemble, jazz choir, duet, trio, quartet. Membership is through audition by the appropriate director. This course may be repeated for credit. 1 credit hour.

MUSI 1171 Cuss Piano I (MUSI 161)
Introduction to fundamentals of keyboard technique for the nonmusic major. May be repeated for credit. 1 credit hour.

MUSI 1172 Class Piano II (MUSI 162)
Continuation of Class Piano I (MUSI 161) with emphasis on development of sight reading skills, repertoire and keyboard technique. May be repeated for credit. 1 credit hour.

MUSI 1173 Applied Music Major (MUSI 191)
Private instruction in the area of the student’s concentration, consisting of one 50 minute lesson per week. Fee required. 1 credit hour.

MUSI 1181 Beginning Piano I (MUSI 256)
Fundamentals of keyboard technique. Suggested for music majors. Level I. May be repeated through Level IV for credit. Lab required. 1 credit hour.

MUSI 1182 Beginning Piano II (MUSI 257)
Fundamentals of keyboard technique. Suggested for music majors. Level II. May be repeated through Level IV for credit. Lab required. 1 credit hour.
**MUSI 1183 Class Voice (MUS 155)**
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.

**MUSI 1184 Class Voice II (MUS 156)**
Continuation of Class Voice I. Prerequisite: MUSI 1183. 1 credit hour.

**MUSI 1192 Class Guitar (MUS 157)**
Class instruction in the fundamentals of beginning guitar. For the non-music major. This course may be repeated for credit. 1 credit hour.

**MUSI 1193 Class Guitar II (MUS 158)**
Continuation of Class Guitar I employing advanced reading skills, chord structures and techniques. Prerequisite: MUSI 1192. 1 credit hour.

**MUSI 1263 Improvisation (MUS 260)**
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 or her instrument, the vocalist utilizes scale singing techniques. Prerequisites: MUSI 1312 and MUSI 1117 or demonstrated competence. Lab required. 2 credit hours.

**MUSI 1271 Introduction to Synthesizer I (MUS 167)**
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.

**MUSI 1272 Introduction Synthesizer II (MUS 168)**
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: MUSI 1271. Lab required. 2 credit hours.

**MUSI 1301 Music Fundamentals (MUS 140)**
An introduction to the elements of music theory: scales, intervals, keys, triads, elementary ear training, keyboard harmony, notation, meter and rhythm. 3 credit hours.

**MUSI 1306 Music Appreciation (MUS 181)**
Understanding music through the study of cultural periods, major composers and musical elements. 3 credit hours.

**MUSI 1308 Music Literature I (MUS 291)**
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.

**MUSI 1309 Music Literature II (MUS 292)**
A continuation of MUSI 1308. Emphasis is on Romantic, 20th century and popular music. 3 credit hours.

**MUSI 1310 Music in America (MUS 145)**
General study of various styles of music in America. Topics include folk, jazz, pop, rock and 20th century American composers. 3 credit hours.

**MUSI 1311 Music Theory I (MUS 151)**
The basic elements of music. Emphasis is on notation, cadences, diatonic triads, scales and modes. Co-requisite: MUSI 1116. Lab required. 3 credit hours.

**MUSI 1312 Music Theory II (MUS 153)**
Concentrates on part-writing and harmonization with triads and their inversions. Prerequisite: MUSI 1311. Co-requisite: MUSI 1117. Lab required. 3 credit hours.

**MUSI 1386 Arranging (MUS 255)**
Class instruction in music arranging and composition. Techniques of transposition for various instruments, music transposition techniques including computer music printing, common notational practices and alternative scoring techniques are offered through lectures and analysis of existing scores. Prerequisites: MUSI 1312 and MUSI 1117 or demonstrated competence. Lab required. 3 credit hours.

**MUSI 2116 Aural Skills III (MUS 252)**
Aural study of superimposition, singing modulations to closely related keys, melodic and harmonic modulations, compound intervals. Prerequisite: MUSI 1117. Co-requisite: MUSI 2311. 1 credit hour.

**MUSI 2118 Aural Skills IV (MUS 254)**
Singing remote modulations and difficult melodies. Aural study of unusual and mixed meters; altered chords; 9th, 11th and 13th chords. Prerequisite: MUSI 2116 Co-requisite: MUSI 2312. 1 credit hour.

**MUSI 2124 Band (MUS 160)**
The band studies and performs a wide variety of music in all areas of band literature. This course may be repeated for credit. 1 credit hour.

**MUSI 2143 Choir (MUS 150)**
A wide variety of music representing the choral literature is studied and performed. This course may be repeated for credit. 1 credit hour.

**MUSI 2181 Beginning Piano III (MUS 258)**
Fundamentals of keyboard technique. Suggested for music majors. Level III. May be repeated through Level IV for credit. Lab required. 1 credit hour.

**MUSI 2182 Beginning Piano IV (MUS 259)**
Fundamentals of keyboard technique. Suggested for music majors. Level IV. May be repeated for credit. 1 credit hour.
MUSI 2311 Music Theory III (251)
A continuation of music theory including the materials of modulation, larger forms and thematic development.
Prerequisite: MUSI 2117. Co-requisite: MUSI 2116. Lab required. 3 credit hours.

MUSI 2312 Music Theory IV (MUS 253)
A continuation of MUSI 2116 including melody, harmony, tonality and the formal processes of 20th century music.
Prerequisite: MUSI 2311. Co-requisite: MUSI 2118. Lab required. 3 credit hours.

MUSI 2371 Studio Technology Practicum (MUS 295)
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 2324. Lab required. 3 credit hours.

MUSI 2372 Practicum in Electronic Media (MUS 297)
This course reinforces by application and demonstration the theory and skills obtained in Survey of Recording Techniques I and II on Studio Technology with emphasis on audio production in the recording studio. Prerequisite: MUSI 2371 or demonstrated competence approved by instructor. 3 credit hours.

MUSI 7300 Internship
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.

(For students interested in "Business in Music" please refer to BUSI 2379 Selected Topics in Business Principles)

NURSING

NURS 1800 Nursing I (NURS 147)
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 1805. Lab required. 8 credit hours.

NURS 1805 Nursing II (NURS 148)
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 2400. Lab required. 8 credit hours.

NURS 2400 Nursing III (NURS 244)
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 is included 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 2900. Lab required. 4 credit hours.

NURS 2900 Nursing IV (NURS 259)
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 nursing process encourage students to assimilate and synthesize nursing care planning. Team nursing is presented as a method to meet nursing needs for groups of clients. Facilities used for laboratory practice include various community health agencies. Prerequisites: See nursing director. A grade of C is required to progress to NURS 2905. Lab required. 9 credit hours.

NURS 2905 Nursing V (NURS 269)
A continuation of Nursing IV. Focuses on the problems of clients with disturbances of the nervous, endocrine, immunological body systems, communicable diseases and the complex problems of burns. More complex approaches to the nursing process and team nursing encourage students to assimilate and synthesize nursing care planning and implementation and evaluation. Facilities used for laboratory practice include various community health agencies.
Seminar sessions enable students to review professional, ethical and legal aspects of the responsibilities of the registered nurse. To prepare the student for the graduate role, a preceptorship of clinical practice is done in the hospital settings. Each student assumes the responsibilities of the graduate nurse under the supervision of a registered nurse. Prerequisites: See Nursing Director. A grade of C is required in order to graduate. Lab required. 9 credit hours.
OFFICE ADMINISTRATION

OFAD 1200 COMPUTER KEYBOARDING (OFAD 133)
Designed to learn the computer keyboard by touch using computer-assisted instruction. Lab required. 2 credit hours.

OFAD 1210 RECORDS MANAGEMENT (OFAD 131)
Classifying documents using basic filing systems: selecting equipment and supplies analysis and revision of files; survey of systems using electronics and micrographics. Lab required. 2 credit hours.

OFAD 1211 PROOFREADING/EDITING (OFAD 132)
Designed to learn proofreading and editing skills necessary to assure accuracy in written documents and business correspondence. Lab required. 2 credit hours.

OFAD 1301 BEGINNING TYPING/Writing/PC (OFAD 120)
Beginning instruction for students with no previous typing instruction. Touch keyboarding techniques are developed skills in centering, tabulating formatting correspondence and formatting manuscripts are introduced. Lab required. 3 credit hours.

OFAD 1302 INTERMEDIATE TYPING/Writing/PC (OFAD 121)
Designed to increase speed and accuracy and improve typing production rates of business correspondence, tables, forms and reports. Prerequisite: OFAD 1301 or one year of high school typing. Lab required. 3 credit hours.

OFAD 1305 BEGINNING SHORTHAND (OFAD 126)
Introduction to the principles of Cregg shorthand theory. Emphasis on ability to read, write and transcribe shorthand outlines. Prerequisite: OFAD 1301. Lab required. 3 credit hours.

OFAD 1306 INTERMEDIATE SHORTHAND (OFAD 127)
Shorthand theory review: development of speed building and transcription skills, including emphasis on grammar and punctuation. Prerequisite: OFAD 1305, OFAD 1302. Lab required. 3 credit hours.

OFAD 1315 ELECTRONIC CALCULATOR (OFAD 134)
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 1320 BUSINESS CORRESPONDENCE (OFAD 135)
Compose and evaluate effective business documents including letters, memos, reports, minutes and other correspondence. Prerequisite: ENGL 1301, OFAD 1302 or OFAD 1331. 3 credit hours.

OFAD 1325 WORD PROCESSING SOFTWARE (OFAD 220)
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 1301 or one year high school typing. Lab required. 3 credit hours.

OFAD 1331 WORD PROCESSING II (OFAD 223)
Designed to develop basic word processing skills for employment purposes or 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 1301 or one year of high school typing and 35 WPM. Lab required. 3 credit hours.

OFAD 1332 WORD PROCESSING II (OFAD 224)
Designed to learn the advanced features of a comprehensive word processing program using intermediate level output applications including multi-page text, document assembly (macros), merges, file/sort and forms. Software is state-of-the-art and subject to change reflecting business demands. See class schedule for software offered. Prerequisite: OFAD 1302, 1331 and 50 WPM. Lab required. 3 credit hours.

OFAD 2303 ADVANCED TYPING/Writing/PC (OFAD 122)
Specialized instruction emphasizing machine production of simulated office projects. Computers and interactive software are used for speed building to achieve individual speed and accuracy goals. Prerequisite: OFAD 1302, OFAD 1331. Lab required. 3 credit hours.

OFAD 2305 MACHINE TRANSCRIPTION (OFAD 225)
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 1302, OFAD 1331. Lab required. 3 credit hours.

OFAD 2315 OFFICE PROCEDURES (OFAD 230)
Acquaints students with the varied aspects of office routines. Emphasis on time management, mail responsibilities, telephone techniques, communication, job application/interviewing and other topics associated with office technology. Prerequisite: OFAD 1302. Lab required. 3 credit hours.

OFAD 2333 WORD PROCESSING III (OFAD 226)
Designed to develop advanced skills in word processing using applications and desktop publishing projects requiring critical thinking and decision-making as expected in the workplace. Prerequisite: OFAD 1302, OFAD 1332 AND 55 WPM. Lab required. 3 credit hours.
PHILOSOPHY

PHIL 1301 INTRODUCTION TO PHILOSOPHY (PHIL 151)
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 1304 COMPARATIVE RELIGION (PHIL 154)
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 2303 LOGIC (PHIL 152)
An introduction to symbolic logic. Emphasis on logical argument, fallacies, inductive and deductive logic, and correct reasoning. 3 credit hours.

PHIL 2306 ETHICS (PHIL 153)
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 2307 SOCIAL AND POLITICAL PHILOSOPHY (PHIL 251)
Theoretical foundations of governmental systems. Philosophers such as Plato, Hobbes, Locke, Kant and Nozick will be considered. 3 credit hours.

PHOTOGRAPHY

(Also see ACDT, ARTS, DRAMA AND COMMUNICATION)

ARTS 2356 PHOTOGRAPHY I (PHO 180)
Introduction to photography including basic camera operations, darkroom techniques, with emphasis on visual imagination and design. Lab required. 3 credit hours.

ARTS 2357 PHOTOGRAPHY II (PHO 181)
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: ARTS 2356. Lab required. 3 credit hours.

ARTS 2370 PHOTOGRAPHY—PORTRAIT (PHO 280)
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: ARTS 2356 or equivalent. Lab required. 3 credit hours.

ARTS 2371 CONTEMPORARY STUDIES IN THE VISUAL ARTS—PHOTOGRAPHY (PHO 281)
Indepth study of concerns 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
Study and use of large-format cameras, custom paper and film developers, and application of the zone system in photography. Prerequisites: ARTS 2356 and ARTS 2357. Lab required. 3 credit hours.

Advanced Color Photography
Study of aesthetic and technical elements inherent to color imagemaking. Historical background combined with current trends make up a foundation for critical exploration into this medium. Prerequisites: ARTS 2356 and ARTS 2357. Lab required. 3 credit hours.

Advanced Portraiture
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: ARTS 2356, ARTS 2357 and ARTS 2370. 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 Point Print, the Van Dierser and other alternate processes. Prerequisite: ARTS 2356 (ARTS 2357 also recommended). Lab required. 3 credit hours.
ARTS 2371—Continued
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: ARTS 2356 and ARTS 2357. Lab required. 3 credit hours.

Digital Photography
An overview of and hands-on experience with digital photography. Students will use a variety of image-capture devices, both digital and traditional; enhance and manipulate images with emphasis on what determines the correct resolution and file format for the end product. Prerequisites: ARTS 2356, ARTS 2357 and ACDT 1310. Requires concurrent enrollment with ACDT 1320. Lab required. 3 credit hours.

Digital Photography II
Advanced level electronic imaging. Increased hands-on experience using the digital camera, scanners, Photoshop and high-end image manipulation of large digital files. Prerequisite: ARTS 2371. 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: ARTS 2356 (ARTS 2357 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: ARTS 2356 and ARTS 2357. 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: ARTS 2356. 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: ARTS 2356 and ARTS 2357. Lab required. 3 credit hours.

ARTS 2371—Continued
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, learning the results from different paper surfaces and different developing agents. Creative experimentation will be encouraged. Prerequisites: ARTS 2356 and ARTS 2357. Lab required. 3 credit hours.

Portfolio
Advanced photography for development of a strong portfolio of images, either commercial or fine arts. Outcome will be a portfolio of high quality images that can be shown for the purpose of obtaining commercial contracts or exhibitions. Prerequisites: ARTS 2356 and ARTS 2357 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: ARTS 2356 and ARTS 2357. Lab required. 3 credit hours.

ARTS 2372 History of Photography (PHO 298)
A study of the emergence and development of the first technological art form. 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.

PHYSICAL EDUCATION AND HEALTH
(SEEN ALSO DANCE)
PHED 1100 Beginning Weight Training and Conditioning (HPED 140)
An introductory course in weight training and body building to learn the basic techniques for strength development and cardiovascular conditioning. The use of the universal weight machine, free weights, dumbbells, bicycle ergometers, rowing machines and a treadmill are utilized to establish individual fitness program. 1 credit hour.

PHED 1102 Intermediate Weight Training and Conditioning (HPED 141)
Advanced techniques in strength development and cardiovascular conditioning assists individuals in establishing their own fitness program. Prerequisite: PHED 1100 or instructor's permission. 1 credit hour.
PHED 1103 Advanced Weight Training and Conditioning (HPED 142)
Weight training program tailored to the individual who has experience in proper techniques and conditioning and wants to continue in an excelled program. Prerequisite: PHED 1102 or consent of instructor. 1 credit hour.

PHED 1104 Beginning Jogging and Fitness (HPED 143)
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.

PHED 1105 Intermediate Jogging and Fitness (HPED 144)
An accelerated fitness program structured for further improvement in cardiovascular endurance, flexibility and strength. Prerequisite: PHED 1104 or instructor's permission. 1 credit hour.

PHED 1106 Walking and Fitness (HPED 145)
The student will improve cardiovascular, muscle toning and flexibility through a vigorous walking and conditioning program. 1 credit hour.

PHED 1107 Cycling (HPED 146)
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.

PHED 1108 Cross Training I (HPED 148)
Extensive course offering training techniques and strategies for multi-sport aerobic activities. Involves a weight training program specifically designed to build strength and a running program that will include intervals, hills and speed work for the cross training athlete. Concurrent enrollment in PHED 1109 recommended. 1 credit hour.

PHED 1109 Cross Training II (HPED 149)
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 have their own bicycle. Concurrent enrollment in PHED 1108 recommended. 1 credit hour.

PHED 1111 Basketball (HPED 150)
Fundamental skills and strategies are reviewed through knowledge of the history, rules, terminology. Students then participate in game situations. 1 credit hour.

PHED 1112 Soccer (HPED 152)
Develops the basic skills and strategies through knowledge of the history, rules and terminology are taught along with participation in game situations. 1 credit hour.

PHED 1113 Softball (HPED 154)
Fundamental skills including throwing, batting, fielding and base running as well as knowledge of the rules and terminology are emphasized along with participation in game situations. 1 credit hour.

PHED 1114 Volleyball (HPED 156)
Individual skills and techniques, application of rules and an introduction to offensive and defensive strategies are stressed in this course. 1 credit hour.

PHED 1115 Archery (HPED 115)
Provides instruction in the basic techniques, rules and scoring. The history and terminology of archery are also investigated. 1 credit hour.

PHED 1116 Badminton (HPED 116)
History, rules, basic strokes and strategies in singles and doubles play are emphasized through intra-class competition. 1 credit hour.

PHED 1117 Beginning Tennis (HPED 117)
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.

PHED 1118 Intermediate Tennis (HPED 118)
Develops and improves each skill level in serving, forehand and backhand drives, lobs and volleys. Performance strategies for both singles and doubles are drilled. Prerequisite: PHED 1117 or consent of instructor. 1 credit hour.

PHED 1119 Advanced Tennis (HPED 119)
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: PHED 1118 or consent of instructor. 1 credit hour.

PHED 1120 Beginning Racquetball (HPED 120)
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.

PHED 1121 Intermediate Racquetball (HPED 121)
Drills in sewing, forehand and backhand drives, kill shots, Z shots and lobs help develop strategies for singles and doubles play. Prerequisite: PHED 1120 or consent of instructor. 1 credit hour.

PHED 1122 Advanced Racquetball (HPED 122)
Advanced drills for competitive racquetball players stress techniques and strategies needed for tournament competition. Prerequisite: PHED 1121 or consent of instructor. 1 credit hour.
PHED 1123 Beginning Golf (HPED 123)
Basic fundamentals knowledge of the history, terminology and scoring of golf are stressed. 1 credit hour.

PHED 1124 Intermediate Golf (HPED 124)
Advanced skill techniques and strategies of golf are developed. Prerequisite: PHED 1123 or consent of instructor. 1 credit hour.

PHED 1125 Bowling (HPED 126)
Ball selection, stance, four step approach, rules and scoring procedures are taught. Emphasis is placed on game situations. 1 credit hour.

PHED 1126 Self Defense (HPED 170)
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.

PHED 1127 Beginning Karate (HPED 171)
Introduction to basic techniques, formal exercises and sparring techniques for the beginner. 1 credit hour.

PHED 1128 Intermediate Karate (HPED 173)
Intermediate skills and techniques of karate. 1 credit hour.

PHED 1131 Beginning Swimming (HPED 160)
Non-swimmers and beginners are taught basic swimming skills and strokes. Personal safety skills and confidence in the water are emphasized. 1 credit hour.

PHED 1132 Intermediate Swimming (HPED 161)
Includes further stroke development in front and back crawl, side stroke, breast stroke, diving and some competitive swimming techniques. Development of cardiovascular endurance is stressed through lab swimming. Prerequisite: PHED 1131 or instructor’s permission. 1 credit hour.

PHED 1134 Advanced Life Saving (HPED 163)
Skills, methods and techniques involved in lifesaving and water safety are reviewed. Successful completion leads to American Red Cross Lifesaving Certification. Prerequisite: Ability to swim 500 yards continuously using following strokes—back, breast, crawl and side, or PHED 1132.1 credit hour.

PHED 1135 Water Safety Instruction (HPED 164)
Successful completion of the course allows the student to take the standardized test given by the American Red Cross examiners for certification as a water instructor. Prerequisite: Current American Red Cross Senior Lifesaving Certificate. 1 credit hour.

PHED 1151 Beginning Scuba (HPED 165)
The course is divided into academic training and confined-water training. All equipment is supplied except mask, fins, boots 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 PHED coordinator required. 1 credit hour.

PHED 1152 Advanced Open-Water Scuba (HPED 166)
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 diving first aid. Prerequisite: Permission of PHED coordinator required. 1 credit hour.

PHED 1301 Introduction to Physical Education (HPED 101)
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.

PHED 1304 Personal Health (HPED 103)
Provides an indepth 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.

PHED 1306 Safety and First Aid (HPED 106)
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.

PHED 1308 Sports Officiating (HPED 104)
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.

PHED 7300 Internship
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.
Physics/Physical Science

PHYS 1401 General Physics I (PHYS 191)
Algebra based physics course for the science major in areas 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 1402 General Physics II (PHYS 192)
A continuation of Physics 1401. Includes topics of electricity, magnetism, light, optics, relativity and atomic physics. Prerequisite: PHYS 1401. Lab required. 4 credit hours.

PHYS 1411 Elementary Astronomy (PSCI 153)
Introduction to the solar system, stars, stellar groupings and galaxies: telescopes and other astronomical instruments are discussed. Physical characteristics of the motion of bodies 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. Prerequisite: MATH 0305. Lab required. 4 credit hours.

PHYS 1415 Physical Science I (PSCI 151)
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 0305 or equivalent. Lab required. 4 credit hours.

PHYS 1417 Physical Science II (PSCI 152)
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 0305 or equivalent. Lab required. 4 credit hours.

PHYS 2425 College Physics I (PHYS 291)
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 2413. Co-requisite: MATH 2414. Lab required. 4 credit hours.

PHYS 2426 College Physics II (PHYS 292)
A continuation of Physics 2425 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 2425. Lab required. 4 credit hours.

PHYS 7300 Internship
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.

Psychology

PSYC 2301 General Psychology (PSYC 151)
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 2302 Applied Psychology (PSYC 121)
Surveys the applications of psychological knowledge and methodology in the fields of business, industry, education, medicine, law enforcement and government work. Emphasis on group dynamics and adjustment factors for employment and advancement. Lab required. 3 credit hours.

PSYC 2306 Human Sexuality (PSYC 153)
Designed to assist the student in the understanding of human sexuality including an appreciation of different approaches to sexuality as well as an awareness of one's own sexuality and its impact on adjustment to life. A student may register for this course as PSYC 2306 or SOCI 2306, but not for both. 3 credit hours.

PSYC 2314 Life Span Psychology (PSYC 251)
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 2301. Lab required. 3 credit hours.

PSYC 2315 Psychology of Adjustment (PSYC 155)
Psychological theory will be presented enabling students to gain insight into adjustment topics that can be applied to their own lives and the lives of those around them. 3 credit hours.

PSYC 2316 Psychology of Personality (PSYC 253)
An in-depth study of theories of personality with practical application of each. Methods of personality measurement and assessment are also included. Prerequisite: PSYC 2301. Lab required. 3 credit hours.
**PSYC 2319 Social Psychology (PSYC 252)**
Research and theory regarding social factors that influence human behavior. Focuses on attitudes, interpersonal attraction, aggression, conformity, communication, values, roles and group processes. Application of these principles will be made to the human experience. A student may register for this course as PSYC 2319 or SOCI 2326, but not both. Prerequisite: PSYC 2301 or SOCI 1301. Lab required. 3 credit hours.

**PSYC 2370 Drug Use and Abuse (PSYC 255)**
A view of the individual, the substance and the cultural context in which they interact. This course is designed to provide a basic understanding of the psychopharmacology of drugs used and abused in today's society. The emphasis of the study will be the major perspectives of drug use including legal, moral, public health/disease model/psychosocial and socio-cultural. Students may enroll in either PSYC 2370 or in SOCI 2340, but not in both. 3 credit hours.

**PSYC 2371 Selected Topics in Psychology (PSYC 297)**
An in-depth study of selected topics on current issues in psychology. Course may be repeated for credit as topics vary. 3 credit hours.

**PSYC 7300 Cooperative Education**
A course designed to integrate on-campus study with practical hands-on experience. The student, the student’s supervisor and the instructor will establish a set of five specific goals for the student to accomplish. Also requires an average of one hour per week of lecture. Prerequisite or co-requisite: PSYC 2301. 3 credit hours.

**READING**

**READ 0100 Developmental Reading I (READ 040)**
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 0105 Developmental Reading II (READ 041)**
Designed to raise the reading level of students reading on levels 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 0110 Developmental Reading III (READ 042)**
Designed to raise the reading level of students reading on levels 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 1300 Analytical Reading and Critical Thinking (READ 101)**
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**

**RLST 1301 Real Estate Principles I (RUT 133)**
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 1302 Real Estate Principles II (RUT 134)**
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.

**RLST 1305 Real Estate Math (RLST 136)**
Review of mathematical logic and arithmetic skills including percentages, interest, time valued money, depreciation, amortization, proration and estimation of closing statements. (Core Course). 3 credit hours.

**RLST 1310 Real Estate Appraisal (RLST 135)**
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 1315 Promulgated Contract Forms (RUT 139)**
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 1302 or consent of discipline coordinator. 3 credit hours.
RLST 1320 REAL ESTATE SALES AND MARKETING (RLST 138)
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.

RLST 2101 REAL ESTATE SPECIAL TOPICS I (RLST 297)
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.

RLST 2102 REAL ESTATE SPECIAL TOPICS II
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). 3 credit hours.

RLST 2305 REAL ESTATE INVESTMENTS (RLST 234)
Financing, evaluation and management of real estate investments. Real estate investment characteristics, techniques of investment and analysis, discount and nondiscounted investment criteria, timevalued money, leverage, tax shelters and consideration, investment risks and applications to property tax. (Core Course). Prerequisite: RLST 1302 or consent of discipline coordinator. 3 credit hours.

RLST 2310 REAL ESTATE FINANCE (RLST 241)
A study of the commercial class of real estate, considering the developing appraising, marketing, contracting and financing functions related to business properties, including officebuildings, shopping centers, stores, hotels and parking facilities. (Related Course). 3 credit hours.

RLST 2330 REAL ESTATE FINANCIAL ANALYSIS (RLST 242)
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 the 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 1302; MUST have a HP-17B2 calculator or HP-19B2 calculator. 3 credit hours.

RLST 2335 REAL ESTATE BROKERAGE (RLST 251)
Study of the brokerage business including planning and organization, operational policies and procedures, personnel recruiting, selection and training, record keeping and control analysis of real estate firm, criteria for expansion and a study of the law of agency. (Core Course). Prerequisite: RLST 1302. 3 credit hours.

RLST 7300 COOPERATIVE EDUCATION I (RLST 700)
Designed to integrate on-campus study with offcampus 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.

RLST 7305 COOPERATIVE EDUCATION II (RLST 705)
Designed to integrate on-campus study with offcampus 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 1010 RESPIRATORY CLINICAL PRACTICUM I (RTTP 114)
Students apply skills learned in didactic and practiced in the laboratory in a clinical hospital setting. Lab required. 4 credit hours.

RTTP 1015 RESPIRATORY CLINICAL PRACTICUM II (RTTP 123)
Continues RTTP 1010, providing students with practical experience in those skills acquired in the previous semester. 2 credit hours.
## Respiratory Care Courses

**RTTP 1020 Respiratory Clinical Practicum III (RTTP 125)**
Continues RTTP 1015 providing student with opportunities to apply those skills acquired during the previous semester along with the following new skills: basic pulmonary function testing, arterial blood gas procurement and critical care. 3 credit hours.

**RTTP 1025 Respiratory Clinical Practicum IV (RTTP 126)**
Students complete the clinical experience to prepare to perform as an entry level technician. Emphasizes emergency and critical care with a continuation

**RTTP 1200 Cardiopulmonary Anatomy and Physiology (RTTP 112)**
Provides an advanced understanding of the anatomy and physiology of the cardiovascular, pulmonary, renal and nervous systems. Lab required. 2 credit hours.

**RTTP 1205 Respiratory Pharmacology (RTTP 122)**
Provides a working knowledge of basic drugs used by the therapist related to respiratory care patients. 2 credit hours.

**RTTP 1210 Critical Care (RTTP 127)**
Develops a working knowledge of basic pulmonary function testing, arterial and venous blood gas analysis, co-aximetry and tonometry as well as continuation of mechanical ventilation. Lab required. 2 credit hours.

**RTTP 1215 Neonatal and Pediatric Respiratory Care (RTTP 121)**
Teaches a basic understanding of various respiratory diseases associated with newborn infants and children. Lab required. 2 credit hours.

**RTTP 1300 Respiratory Chemistry/Physics (RTTP 113)**
Provides an understanding of basic math, physics laws and chemistry principles as they apply to the field of respiratory care. Prerequisite: MATH 1314 or 1324. 3 credit hours.

**RTTP 1305 Respiratory Pathophysiology (RTTP 120)**
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 1400 Fundamentals of Respiratory Care I (RTTP 115)**
Develops a safe working knowledge of the function, usage and troubleshooting of fundamental respiratory care equipment. Lab required. 4 credit hours

**RTTP 1405 Fundamentals of Respiratory Care II (RTTP 124)**
Focuses on critical care, including airway care and classification and application of mechanical ventilators. Lab required. 4 credit hours.

**RTTP 2010 Clinical Practicum V (RTTP 213)**
Application of advanced respiratory techniques to include advanced critical care, roentgenographic patterns of respiratory disease, neonatal care and post-operative care of cardiopulmonary patient. 2 credit hours.

**RTTP 2015 Clinical Practicum VI (RTTP 223)**
This course is a completion of the clinical experience to prepare the student to perform as an advanced respiratory care practitioner. 2 credit hours.

**RTTP 2210 Advanced Respiratory Care I (RTTP 214)**
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 2215 Advanced Respiratory Care II (RTTP 221)**
Advanced procedures used in pulmonary function testing, basic management, education (patient and in-service), homecare and rehabilitation techniques as they relate to respiratory care. 3 credit hours.

**RTTP 2300 Cardiopulmonary Dynamics (RTTP 215)**
Provides a working knowledge of advanced cardiac diagnostic techniques to include 12 lead ECG interpretation and hemodynamic measurements. 3 credit hours.

**RTTP 2305 Respiratory Care Clinical Specialties (RTTP 220)**
Provides an understanding of clinical areas of specialization on cardiopulmonary medicine. 3 credit hours.

### Russian

**RUSS 1411 Beginning Russian I (RUSN 191)**
Introduction to the basic skills of speaking, reading, writing and listening, designed for students with little or no prior 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.

**RUSS 1412 Beginning Russian II (RUSN 192)**
A continuation of Russian 1411. Prerequisite: RUSN 1411 or equivalent. Lab required. 4 credit hours.

### Small Business Management

**SBMT 1300 Small Business Management I (SBMT 121)**
Introduction to planning, establishing and operating a small business. Includes constructing a business plan. 3 credit hours.
SBMT 1305 Small Business Financing (SBMT 221)
Financial planning, use of financial data, forecasting financial needs, control of cash and other assets, capital budgeting, acquisition valuation, financial sources. Prerequisite: SBMT 1300 or consent of instructor. 3 credit hours.

SBMT 1310 Principles of Retailing (SBMT 222)
Introduction to the operation of the retail system of distribution including consumer demand, site location, store, layout and credit practices. 3 credit hours.

SBMT 2300 Small Business Management II (SBMT 223)
Continued study of elements introduced in SBMT 1300. In addition, such topics as promoting a small business, hiring and managing people, product and services marketing and record keeping are explored. 3 credit hours.

SBMT 7300 Cooperative Education I (SBMT 700)
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 7305 Cooperative Education II (SBMT 705)
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 7300. 3 credit hours.

Sociology

SOCI 1301 Introduction to Sociology (SOC 151)
An introduction to the social science which focuses on external influences on human behavior originating from people in our daily lives and from events occurring on a societal or global scale. The following aspects of social life will be applied to the human experience: social forces, economic systems, cultural interaction, deviance, social stratification, race relations, gender and sexuality. Lab required. 3 credit hours.

SOU 1306 Social Problems (SOC 152)
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.

SOU 2301 Marriage and Family (SOC 251)
A functional and empathetic approach to understanding the structural developmental and institutional aspects of marriage and the family. Emphasis on the American family with consideration given to courtship, mate selection, marriage and its dynamics, conflict, family violence, child-rearing patterns, the later years of marriage, divorce and remarriage. Lab required. 3 credit hours.

SOCI 2306 Human Sexuality (SOC 153)
Designed to assist the student in the understanding of human sexuality including an appreciation of different approaches to sexuality as well as an awareness of one’s own sexuality and its impact on adjustment to life. A student may register for this course as PSYC 2306 or SOCI 2306, but not for both. 3 credit hours.

SOCI 2319 Minority Studies (SOC 253)
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.

SOCI 2326 Social Psychology (SOC 252)
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 PSYC 2319 or SOCI 2326, but not both. Prerequisite: PSYC 2301 or SOCI 1301. Lab required. 3 credit hours.

SOCI 2340 Drug Use and Abuse (SOC 255)
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 on the major perspectives of drug use including legal, moral, public health/disease model/psychosocial and sociocultural. Students may enroll in either PSYC 2370 or in SOCI 2340, but not in both. 3 credit hours.

SOCI 2371 Selected Topics in Sociology (SOC 297)
An in-depth study of selected topics on current issues in sociology. Course may be repeated for credit as topics vary. 3 credit hours.

SOU 7300 Internship
A course designed to integrate on-campus study with practical hands-on experience. The student, the student’s supervisor and the instructor will establish a set of five specific goals for the student to accomplish. Also requires an average of one hour per week of lecture. Prerequisite or corequisite: SOCI 1301. 3 credit hours.

Spanish

SPAN 1411 Beginning Spanish I (SPAN 191)
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 1412 Beginning Spanish II (SPAN 192)
A continuation of Spanish 1411. Prerequisite: SPAN 1411. Lab required. 4 credit hours.

SPAN 2171 Conversational Spanish I (SPAN 293)
Intensive practice in conversational Spanish. Prerequisite: SPAN 1412 or consent of discipline coordinator. 1 credit hour.

SPAN 2172 Conversational Spanish II (SPAN 294)
A continuation of Spanish 2171. Prerequisite: SPAN 2171. Requires consent of discipline coordinator. 1 credit hour.

SPAN 2311 Intermediate Spanish I (SPAN 291)
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 audiovisual aids. Prerequisite: SPAN 1412 or consent of discipline coordinator. Lab required. 3 credit hours.

SPAN 2312 Intermediate Spanish II (SPAN 292)
A continuation of Spanish 2311. Extensive written and oral work and extensive reading of literary works in Spanish of moderate difficulty. Prerequisite: SPAN 2311. 3 credit hours.

SPAN 2321 Spanish Literature I (SPAN 295)
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 2312 or consent of instructor. 3 credit hours.

SPAN 2322 Spanish Literature II (SPAN 296)
A study of Spanish literature from 1700 to the present. Discussions, lectures and readings of major literary works with some attention to historical contexts. Prerequisite: SPAN 2312. 3 credit hours.

SPEECH

SPCH 1144 Forensics Workshop (SPCM 192)
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 1315 or consent of instructor. 1 credit hour.

SPCH 1311 Fundamentals of Speech Communication (SPCM 151)
Survey of basic factors affecting human interaction through communication: emphasis on the development of oral communication competency; practice in delivering oral presentations. 3 credit hours.

SPCH 1315 Public Speaking (SPCM 152)
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.

SPCH 1318 Interpersonal Communication (SPCM 294)
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 Corequisite: SPCM 1311 or consent of instructor. 3 credit hours.

SPCH 1321 Business and Professional Speaking (SPCM 293)
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.

SPCH 1371 Advanced Public Speaking (SPCM 153)
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 1315 or consent of instructor. 3 credit hours.

SPCH 2341 Oral Interpretation (SPCM 291)
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 1315 or consent of instructor. 3 credit hours.

SPCH 2370 Language and Communication (SPCM 292)
Appreciation of interdisciplinary approaches to the study of language; comprehension of viewpoints offered by various fields. Prerequisite: SPCM 1311 or consent of instructor. 3 credit hours.

SPCH 7300 Internship
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.

THEATRE

(SEE DRAMA)
## New Course Numbering at CCC

CCCC has adopted a new course numbering system. The first digit of the number reflects the academic level of the course (1-freshman, 2=sophomore) and, in most cases, the second digit reflects the semester-credit-hour value of the course. The third and fourth digits are sequences.

CCCC is also participating in the Texas Common Course Numbering System (TCCNS). TCCNS courses are indicated below with an asterisk (*). In the TCCNS, participating institutions have signed agreements accepting a standard numbering system for commonly transferred academic courses. Courses without the TCCNS asterisk will usually transfer and will frequently meet degree requirements, however, students are advised to seek assistance through the TransferLab when planning their transfer program. As always, students are reminded to contact the institution to which they plan to transfer for specific information on course equivalencies and degree requirements.

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<tr>
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<th>Title</th>
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<td>Principles of Accounting I</td>
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- ACCT 192: ACCT 2302* - Principles of Accounting II
- ACCT 131: ACCT 1370 - Elementary Accounting
- ACCT 193: ACCT 2370 - Managerial Accounting
- ACCT 194: ACCT 2372 - Intermediate Accounting I
- ACCT 195: ACCT 2373 - Intermediate Accounting II
- ACCT 196: ACCT 2375 - Auditing
- ACCT 296: ACCT 2377 - Individual Income Taxation
- ACCT 292: ACCT 2378 - Corporate Income Taxation
- ACCT 295: ACCT 2380 - Accounting Ethics
- ACCT 700: ACCT 7300 - Cooperative Education I

### Advertising

- ADV 190: AGDT 1300 - Survey of Applied Graphic Design Technology
- ADV 140: AGDT 1310 - Introduction to Computer Graphics
- ADV 143: AGDT 1315 - Computer Typography
- ADV 142: AGDT 1320 - Introduction to Electronic Imaging
- ADV 287: AGDT 1325 - Visual Communications I
- ADV 288: AGDT 1330 - Beginning Illustration
- ADV 231: AGDT 1331 - 2D Computer Illustration
- ADV 144: AGDT 1350 - Introduction to Multimedia Authoring
- ADV 238: AGDT 1351 - Interactive Multimedia Authoring
- ADV 232: AGDT 2320 - Color Theory for Digital Media
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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 | ARTS 2356* | Photography I
- PHO 181 | ARTS 2357* | Photography II
- PHO 280 | ARTS 2370 | Photography-Portrait
- PHO 281 | ARTS 2371 | Contemporary Studies in Visual Arts-Photography
- PHO 290 | COMM 1316* | Photo Illustration
- PHO 291 | COMM 1317* | News Photography
- PHO 298 | ARTS 2372* | History of Photography
- PHO 299 | DRAM 2366* | History of Film Making

**Physics**
- PHYS 191 | PHYS 1401* | General Physics I
- PHYS 192 | PHYS 1402* | General Physics II
- PHYS 291 | PHYS 2425* | College Physics I
- PHYS 292 | PHYS 2426* | College Physics II
- PHYS 7300 | Internship |

**Physical Science**
- PSCI 151 | PHYS 1415* | Physical Science I
- PSCI 152 | PHYS 1417* | Physical Science II
- PSCI 153 | PHYS 1411* | Elementary Astronomy
- PSCI 154 | GEOL 1401* | Earth Science

**Psychology**
- PSYC 121 | PSYC 2302* | Applied Psychology
- PSYC 151 | PSYC 2301* | General Psychology
- PSYC 153 | PSYC 2306* | Human Sexuality
- PSYC 155 | PSYC 2315* | Psychology of Adjustment
- PSYC 251 | PSYC 2314* | Life Span Psychology
- PSYC 252 | PSYC 2319* | Social Psychology
- PSYC 253 | PSYC 2316* | Psychology of Personality
- PSYC 255 | PSYC 2370 | Drug Use and Abuse
- PSYC 297 | PSYC 2371 | Selected Topics in Psychology
- PSYC 7300 | Internship |

**Reading**
- READ 040 | READ 0100 | Developmental Reading I
- READ 041 | READ 0105 | Developmental Reading II
- READ 042 | READ 0110 | Developmental Reading III
- READ 101 | READ 1300 | Analytical Reading and Critical Thinking

**Real Estate**
- RLST 133 | RLST 1301 | Real Estate Principles I
- RLST 134 | RLST 1302 | Real Estate Principles II
- RLST 136 | RLST 1305 | Real Estate
RLST 135  RLST 1310  Real Estate Appraisal
RLST 139  RLST 1315  Promulgated Contract
RLST 138  RLST 1320  Real Estate Sales and Marketing
RLST 297  RLST 2101  Real Estate Special Topics I
RLST 234  RLST 2305  Real Estate Investments
RLST 235  RLST 2310  Real Estate Finance
RLST 236  RLST 2315  Real Estate Property Management
RLST 237  RLST 2320  Real Estate Law
RLST 241  RLST 2325  Real Estate Commercial
RLST 242  RLST 2330  Real Estate Financial Analysis
RLST 251  RLST 2335  Real Estate Brokerage
RLST 700  RLST 7300  Cooperative Education I
RLST 705  RLST 7305  Cooperative Education II

Respiratory Care
RTTP 112  RTTP 1200  Cardiopulmonary Anatomy and Physiology
RTTP 114  RTTP 1010  Respiratory Clinical Practicum I
RTTP 123  RTTP 1015  Respiratory Clinical Practicum II
RTTP 125  RTTP 1020  Respiratory Clinical Practicum III
RTTP 126  RTTP 1025  Respiratory Clinical Practicum IV
RTTP 122  RTTP 1205  Respiratory Pharmacology
RTTP 127  RTTP 1210  Critical Care
RTTP 121  RTTP 1215  Neonatal and Pediatric
RTTP 113  RTTP 1300  Respiratory Chemistry/Physics
RTTP 120  RTTP 1305  Respiratory Pathophysiology
RTTP 115  RTTP 1400  Fundamentals of Respiratory Care I
RTTP 124  RTTP 1405  Fundamentals of Respiratory Care II
RTTP 213  RTTP 2010  Clinical Practicum V
RTTP 223  RTTP 2015  Clinical Practicum VI
RTTP 214  RTTP 2210  Advanced Respiratory Care I
RTTP 221  RTTP 2215  Advanced Respiratory Care II
RTTP 215  RTTP 2300  Cardiopulmonary Dynamics
RTTP 220  RTTP 2305  Respiratory Care Clinical Specialties

Spanish
SPAN 191  SPAN 1411*  Beginning Spanish I
SPAN 192  SPAN 1412*  Beginning Spanish II
SPAN 291  SPAN 2311*  Intermediate Spanish I
SPAN 292  SPAN 2312*  Intermediate Spanish II
SPAN 293  SPAN 2171  Conversational Spanish I
SPAN 294  SPAN 2172  Conversational Spanish II
SPAN 295  SPAN 2321*  Spanish Literature I
SPAN 296  SPAN 2322*  Spanish Literature II

Speech
SPCM 151  SPCH 1311*  Fundamentals of Speech Communication
SPCM 152  SPCH 1315*  Public Speaking
SPCM 153  SPCH 1371  Advanced Public Speaking
SPCM 155  COMM 1336*  Television Production
SPCM 192  SPCH 1144*  Forensics Workshop
SPCM 291  SPCH 2341*  Oral Interpretation
SPCM 292  SPCH 2370  Language and Communication
SPCM 293  SPCH 1321*  Business and Professional Speaking
SPCM 294  SPCH 1318*  Interpersonal Communication
SPCM 295  COMM 2331*  Radio and TV Announcing
SPCM 296  COMM 2332*  Radio/Television News
SPCH 7300  SPCH 7300  Internship

Theatre
THEA 151  DRAM 1310*  Introduction to the Theatre
THEA 186  DRAM 1376  Introduction to Costuming
THEA 187  DRAM 1341*  Theatrical Makeup
THEA 185  DRAM 1330*  Stagecraft
THEA 188  DRAM 2331*  Stagecraft II
THEA 190  DRAM 1271  Theatre Practicum-Performance
THEA 191  DRAM 1272  Theatre Practicum-Techical
THEA 192  DRAM 2336*  Voice and Diction
THEA 193  DRAM 1351*  Acting I
THEA 194  DRAM 1352*  Acting II
THEA 195  DRAM 2351*  Acting III
THEA 196  DRAM 7300  Internship

Small Business Management
SBMT 121  SBMT 1300  Small Business Management I
SBMT 221  SBMT 1305  Small Business Finance
SBMT 222  SBMT 1310  Principles of Retailing
SBMT 223  SBMT 2300  Small Business Management II
SBMT 700  SBMT 7300  Cooperative Education I
SBMT 705  SBMT 7305  Cooperative Education II

Russian
RUSN 191  RUSS 1411*  Beginning Russian I
RUSN 192  RUSS 1412*  Beginning Russian II

Sociology
SOC 151  SOCI 1301*  Introduction to Sociology
SOC 152  SOCI 1306*  Social Problems
SOC 153  SOCI 2306*  Human Sexuality
SOC 251  SOCI 2301*  Marriage and Family
SOC 252  SOCI 2326*  Social Psychology
SOC 253  SOCI 2319*  Minority Studies
SOC 255  SOCI 2340*  Drug Use and Abuse
SOC 297  SOCI 2371  Selected Topics in Sociology
SOC 7300  SOCI 7300  Internship

Introduction to Sociology
Social Problems
Human Sexuality
Marriage and Family
Social Psychology
Minority Studies
Drug Use and Abuse
Selected Topics in Sociology
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SCC/G103, 881-5744  
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SCC/K120, 881-5694  
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881-5906  
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Jones Karen  
Secretary, Purchasing  
CPC/B209, 548-6672  
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Administrative Services  
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CPC/B209, 548-6635  
Joshua, John  
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B.A., Caliunt University  
CPC/B113, 548-6684  
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SCC/H105, 881-5881  
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Kasbarian, Hillary  
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SCC/B235, 881-5726  
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B.S., University of San Francisco  
AS, College of Sequoias  
Court Yard Center, 881-5850  
Kelly, William  
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SCC/B105, 881-5857  
Kennedy, Joan  
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SCC/H121, 881-5980  
Kerby, Kathy  
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SCC/B240, 881-5800  
Kesa, Roberta  
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B.A., University of Texas at Dallas  
CPC/A252, 548-6733  
Ketchum, Paul  
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CPC/A235, 548-6652  
Kibby, Esther  
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BA, East Texas State University  
SCC/K118, 881-5688  
Kile, Sidney  
Operations/Maintenance Technician  
SCC/K026, 881-5904  
Kilien, Robert  
Programmer Analyst I  
Computer Services  
B.S., Southwest State University  
A.A., St. Louis Community College, Meramec  
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<td>Director, Institutional Research</td>
<td>Ph.D., University of Rochester</td>
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<td>Phillips, Maxine</td>
<td>Secretary, Purchasing</td>
<td>B.S., University of Texas Austin Salt Lake, 881-5910</td>
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<td>Director, Math Lab</td>
<td>B.S., Emory University</td>
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<td>Proffer, P. Douglas</td>
<td>Professor, Mathematics</td>
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<td>Qalgley, Brendan</td>
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<td>Ramsey, Marjorie</td>
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<td>M.Ed., Wichita State University</td>
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<td>Ramsey, Rex</td>
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<td>Secretary, Financial Aid</td>
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<td>Rector, Lee A.</td>
<td>Professor, Respiratory Care</td>
<td>B.A., University of Texas Austin Salt Lake, 881-5910</td>
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<td>Reynolds, Paula</td>
<td>Administrative Assistant, Enrollment Management</td>
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<td>Rich, Nelson</td>
<td>Professor, Biology</td>
<td>M.S., Northeast Louisiana University</td>
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<td>Ridley, Ray</td>
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<td>Rodgers, J. Tom</td>
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<td>Roessler, P. Dee</td>
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<tr>
<td>Rollins, Tamara</td>
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<td>MA, George Peabody College</td>
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<td>Roman, Paula</td>
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<td>B.S., Emory University</td>
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<td>Rose, Karen</td>
<td>Program Manager, Continuing Education</td>
<td>M.S., Central State University. 881-5850</td>
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<td>Rubin, Edith</td>
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<td>Rubino, Susan</td>
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Glossary

Academic Advising - Process in which students interact with college staff/faculty/advisors in decision making, problem-solving, and range planning related to the student's academic goals.

Advanced Placement - Credit that may be earned through standardized tests offered through the high schools.

Adviser - 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 specific 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 course work.

Attempted Hours - The number of hours a student has 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 essay 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 - Deleting one or more courses prior to the term's census date.

Earned Hours - The number of hours a student successfully completes including college level, developmental, nontraditional, and transfer work.

Electives - 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.

Fun-Time - To be enrolled in 12 or more credit hours during the fall and spring, or six or more hours in the summer.

GPA/Grade Point Average - A calculation made each semester that summarizes grades and credit hours.

Grade Points - 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.

Humanities - The branch of learning exploring human thought and relations.

Leads - A teaching component which occurs both inside and outside the classroom that enhances the learning experience.

Lab Sciences - Science courses utilizing scientific principles for experimentation and research.

Major - Your subject area of specialization.

Non-advanced Courses - Courses offered by the freshman 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 areas 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 a college dean.

Part-Time - To be enrolled in less than 12 credit hours in the fall and spring semester or less than six 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.

Recitation - Required in biology and chemistry courses, one hour per week in which experienced learning reinforces topical material. Critical thinking and analytical skill building are strengthened.

Records, Permanent - Cumulative record of students' courses, grades, credits, classification, address, social security number, etc.

Registration - Enrollment at the beginning of the 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 exact and end times that vary from the "regular" semester. Typically, a session is shorter than a regular semester.

Sophomore - The classification used for students who have 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.

Transcript - The official record of all course work at a particular institution.

Transfer Agreement - The majority of college 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 one or more courses enrolled in for a particular semester after the term's census date.
APPLICATION FOR ADMISSION

(PLEASE PRINT)

Name: ____________________________ Social Security Number: ____________

Last     First     Mi

Local Address: ____________________________ Phone: (home) ____________ (work) ____________

City: ____________________________ County: ____________________________ State: ____________ Zip: ____________

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: ____________

Permanent Address: ____________________________ Phone: ____________________________

Date of Birth ______ Place of Birth: ____________________________ Sex: Male ______ Female ______

Are you a U.S. Citizen? Yes ______ No ______ If no, do you have Permanent Resident status? Yes ______ No ______ If yes, date issued ______ Number: ______

If no, what is country of citizenship: ____________________________ Type of Visa: ____________________________ Visa#: ____________________________ Date: ____________________________

Are you claiming Texas residency for tuition purposes? Yes ______ No ______

Upon whom are you basing your residency? Self ______ Parent ______ Legal guardian ______ (If legal guardian, guardianship papers must be provided.)

If claim for residency is based upon self, answer the following questions:

How long have you resided in Texas? ______ Years + ______ Months Previous state or country of residence: ____________________________

If you came herewithin the past 5 years, why did you move to Texas? ______ Education ______ Employment ______ Other (Please specify) ______

Driver's License Number: ____________________________ State Issued: ____________________________ Expiration Date: ____________________________ Is this a new or a renewed license? New ______ Renewed ______

If claim for residency is based upon parent or legal guardian, please answer the following questions:

Name of person on whom claim is based: ____________________________ How long has this person resided in Texas? ______ Years + ______ Months Previous state or country of residence: ____________________________ Is this person a U.S. Citizen? Yes ______ No ______

If this person came here within the past 5 years, why did this person move to Texas? ______ Education ______ Employment ______ Other (Please specify) ______

Has parent or legal guardian claimed you as a dependent for a U.S. federal income tax purposes for the tax year preceding your registration? Yes ______ No ______

Will they claim you for the current tax year? Yes ______ No ______

Ethnic Origin


Note: This information is required for federal and state affirmative action reporting and does not affect the admission decision. It is voluntary.

Major Field of Study/Interest: (see reverse) ______

Last high school attended: ____________________________ City: ____________________________ State: ____________________________

Date of graduation: ____________ If you did not graduate, do you have a GED? Yes ______ No ______ If yes, date GED received: ____________

* List All Previous Colleges Attended (Official Transcripts Required)

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<th>College</th>
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<th>Credits Earned</th>
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Are you currently on academic or disciplinary suspension? Yes ______ No ______ If yes, name of school: ____________________________

Are you currently on academic or disciplinary probation? Yes ______ No ______ If yes, name of school: ____________________________

* In Case of Emergency, Please Contact:

Name: ____________________________ Relationship: ____________________________ Phone: (home) ____________________________ (work) ____________________________

Oath of Residency

I understand that information submitted herein will be relied upon by COCC officials to determine my status for admission and residency eligibility. I authorize COCC 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.

Signature: ____________________________ Date: ____________________________

Note: If you have attended school or resided out of state, additional proof of residency may be required. Military personnel/dependents must submit proof of military assignment in Texas at each enrollment. Non-U.S. citizens must provide proof of immigration status.

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) 548-6710 or

Collin County Community College, Spring Creek Campus, Admissions Office, Room G103, 2800 E. Spring Creek Pkwy., Plano, Texas 75074, (214) 881-5710

COCC does not discriminate on the basis of race, color, religion, sex, national origin, age, disability or veteran status.
### MAJOR FIELDS OF STUDY LIST

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<td>NDEG—Non-degree seeking</td>
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### 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 claiming Texas residency for tuition purposes.

### COLLIN COUNTY PROPERTY OWNERS

If you have not lived in Texas for 12 months but do own property in Collin County, you may be 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.

**Note:** Contact the Admissions Office if you have any questions regarding your residency status.

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Revised 5/93