

# catalog

Collin  
County  
Community  
College  
District  
2001-2002

COLLIN COUNTY COMMUNITY COLLEGE DISTRICT 2001-2002 CATALOG



2001-2002  
CATALOG

COLLIN COUNTY  
COMMUNITY COLLEGE  
DISTRICT

Published by  
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Community College District

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catalog



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## 2001 - 2002 CATALOG

Collin County Community College District (CCCCD) 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, CCCCCD provides accommodations as required by law, to afford equal educational opportunities to all people. An ADA compliance officer can be reached at 972.985.3781.

Upon request, the college catalog is available on computer disk for students with print-oriented disabilities. For more information contact ACCESS (Accommodations at Collin County for Equal Support Services) at 972.881.5898 (V/TTY). For persons with hearing or speech impairment, please use the Texas Relay Services when offices or departments on campus do not list a TTY number. The Texas Relay number is 800.735.2989 (TTY).

### ACCREDITING BODIES

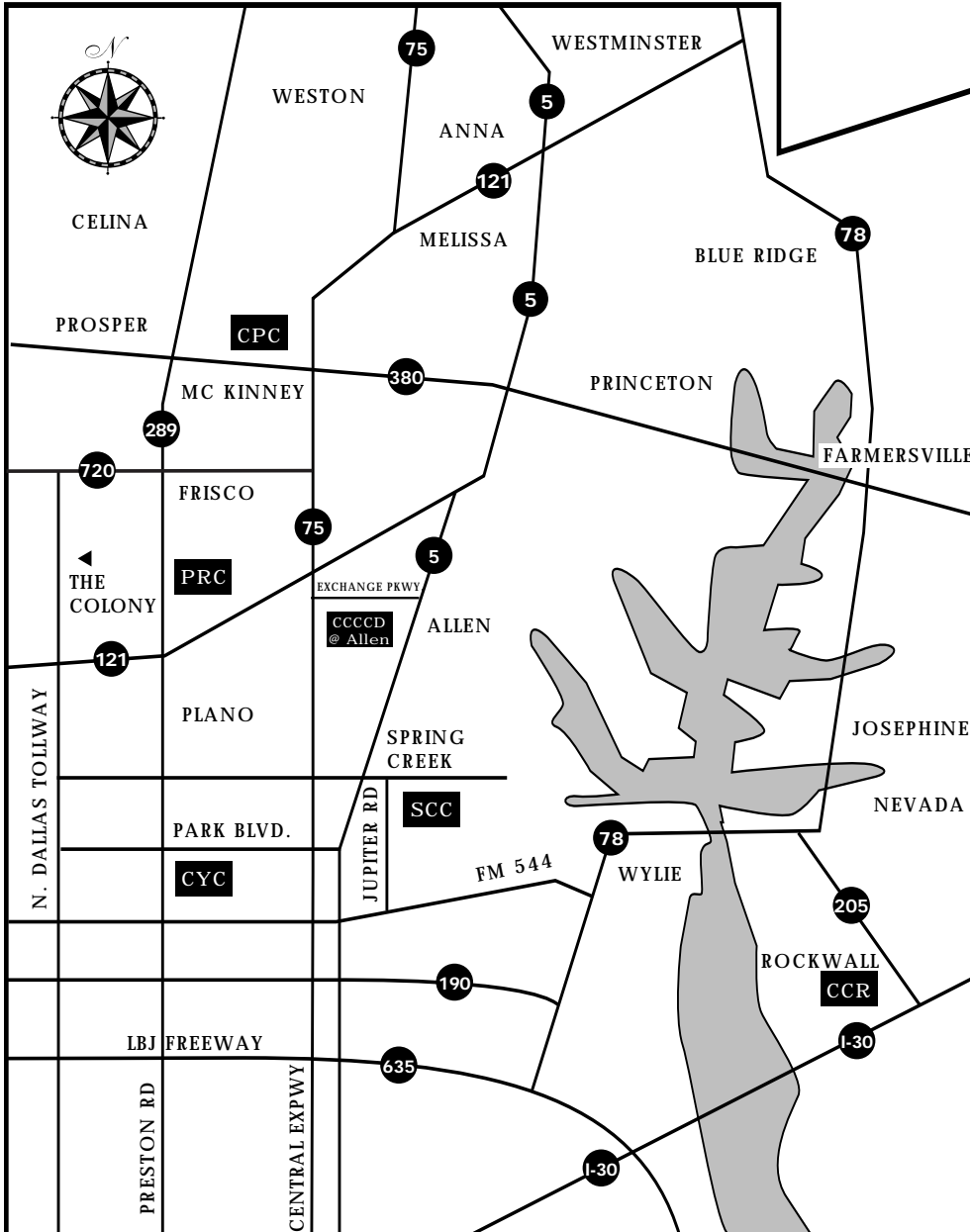
American Dental Association, Texas Department of Health, Texas Commission on Fire Protection, Texas Commission of Law Enforcement Officers Standard and Education, National League for Nursing, Board of Nurse Examiners for the State of Texas, National Accrediting Agency for Clinical Laboratory Sciences, American Physical Therapy Association, Texas Real Estate Commission, and Joint Review Committee for Respiratory Therapy Education

### ACCREDITATION STATUS

CCCCD is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Georgia 30033-4097, telephone: 404.679.4501) to award associate degrees and certificates.

*The programs, policies, statements, fees, and courses contained herein are subject to continual review and evaluation. CCCCCD 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.*

# COLLIN COUNTY COMMUNITY COLLEGE DISTRICT MAP



## CAMPUS LOCATIONS

**Central Park Campus (CPC)**  
 2200 W. University Drive  
 P.O. Box 8001  
 McKinney, Texas 75069-8001  
 972.548.6790

**Courtyard Center for Professional and Economic Development (CYC)**  
 4800 Preston Park Boulevard  
 P.O. Box 869055  
 Plano, Texas 75086-9055  
 972.985.3790

**Preston Ridge Campus (PRC)**  
 9700 Wade Boulevard  
 Frisco, Texas 75035  
 972.377.1790

**Spring Creek Campus (SCC)**  
 2800 E. Spring Creek Parkway  
 Plano, Texas 75074  
 972.881.5790

**CCCCD@ALLEN**  
 3000 Rivercrest Boulevard  
 Allen, Texas 75002  
 214.495.5780

**College Center at Rockwall**  
 901 Yellowjacket Lane  
 Rockwall, Texas 75087  
 972.772.2180

**Internet Address:**  
<http://www.ccccd.edu>

## 2001 - 2002 ACADEMIC CALENDAR

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### FALL 2001

Classes Begin	August 27
Add/Drop	August 27-31
Labor Day Holiday (Campuses Closed)	September 3
Census Date	September 10
Last Day to Withdraw	November 16
Thanksgiving Holiday (Campuses Closed)	November 21-25
Final Exams	December 10-15
Winter Break	December 22-January 1

### WINTERMESTER 2002

Classes Begin (Wednesday only)	December 19
Winter Break	December 22-January 1
Classes Resume	January 2
Census Date	January 2
Last Day to Withdraw	January 3
Final Exams	January 11

### SPRING 2002

Classes Begin	January 14
Add/Drop	January 14-18
Martin Luther King Holiday (CPC, CYC, & PRC Closed; SCC Open)	January 21
Census Date	January 28
Spring Break (No Classes; Campuses Open)	March 11-14
Spring Break (Campuses Closed)	March 15-17
Spring Holiday (Campuses Closed)	March 29-31
Last Day to Withdraw	April 12
Final Exams	May 6-11
2001-2002 Commencement	May 9

### MAYMESTER 2002

Classes Begin	May 13
Census Date	May 14
Last Day to Withdraw	May 24
Memorial Day Holiday (Campuses Closed)	May 27
Final Exams	May 28

### SUMMER I & III 2002

Summer I & III Classes Begin	June 3
Summer I Census Date	June 6
Summer III Census Date	June 11
Summer I Classes Meet (this one Friday only)	June 14
Summer I Last Day to Withdraw	June 28
Summer I Final Exams	July 3
Independence Day Holiday (Campuses Closed)	July 4-7
Summer III Last Day to Withdraw	July 19
Summer III Final Exams	August 7-8

### SUMMER II 2002

Classes Begin	July 8
Census Date	July 11
Last Day to Withdraw	August 2
Final Exams	August 8

## QUICK REFERENCE

STUDENT SERVICES	CPC	CYC	PRC	SCC
Academic Probation or Suspension	972.548.6778 A108		972.377.1779 F135	972.881.5165 G103
Academic Advising	972.548.6782 A108		972.377.1779 F135	972.881.5782 G103
ACCESS Office				972.881.5898 G200
Admissions and Records Office	972.548.6710 A111	972.985.3721 B101	972.377.1710 F135	972.881.5710 G103
Bookstore	972.548.6680 A104	972.985.3710 B107	972.377.1680 F159	972.881.5680 G124
Career Services/Cooperative Work Experience	972.548.6747 A108		972.377.1781 or 1735 F135	972.881.5781 or 5735 G103
Child Development Lab School	972.548.6852 E102/104			972.881.5945 B175
Computer Lab	972.548.6877 C113		972.377.1706 H125	972.881.5877 J119
Counseling Services (Personal)	972.548.6615 B123		972.377.1671 F147E	972.881.5126 F135
Financial Aid/Veterans Affairs	972.548.6760 A111		972.377.1760 F141	972.881.5760 G103
Fitness Center	972.548.6891 E121		972.377.1752 Alumni Hall	972.881.5848 A100
Food Service	First Floor	A212	Alumni Hall	972.881.5949 F108
Global EDGE Tech Prep	972.548.6723 A114			
Housing (College Place Apartments)				972.509.0247
Information Center	972.548.6790 First Floor Atrium	972.985.3790 B101	972.377.1790 First Floor Atrium	972.881.5790 First Floor Atrium
International Students Office				972.516.5011 C225
Learning Resources Center	972.548.6860 B105		972.377.1560 F128	972.881.5860 D100
Math Lab	972.548.6896 B336		972.377.1639 F145	972.881.5921 J228
Recruitment and Retention (Orientation)			972.377.1750 F133	
Service-Learning Office	972.548.6739 B203		972.377.1585 F210	972.881.5800 B240
Student Activities	972.548.6788 D109		972.377.1788 A185	972.881.5788 F129

STUDENT SERVICES-cont.	CPC	CYC	PRC	SCC
Student Development Center	972.548.6770 A108		972.377.1770 F135	972.881.5770 G103
Student Lounge	972.548.6788 First Floor D		972.377.1788 Alumni Hall	972.881.5788 F130
Testing Center	972.548.6849 B342		972.377.1523 F209	972.881.5922 J232
Transfer Programs Office	972.548.6770 A108	972.985.3733 A316	972.377.1770 F135	972.881.5758 G232
Tutoring				972.881.5128 G200
Wellness Center				972.881.5777 A217
Writing Center	972.548.6857 B117		972.377.1576 F118	972.881.5843 D157

NOTE: Limited Student Services will be available at CCCCD@Allen and the College Center at Rockwall.

ADMINISTRATIVE DEPARTMENTS	CPC	CYC	PRC	SCC
ADA/Title IX/504 Coordinator		972.985.3781 B303		
Associate Faculty Office	972.548.6830 B305		972.377.1585, 1705 or 1554 F210, H119, or U155	972.881.5090 or 5759 B103 or K219
Cashier's Office	972.548.6616 A111E	972.985.3724 B101	972.377.1638 F140	972.881.5634 G115
CCCCD Foundation (Scholarships)	972.548.6612 B216			
Dean of Students Office				972.881.5772 G235
Executive Vice President		972.758.3892 B433		
Instruction Office	972.548.6830 B305			
Plant Operations	972.548.6690 E126	972.985.3777 Basement	972.377.1690 Plant Bldg.	972.881.5690 K016
President's Office		972.758.3800 B431		
Provost's Office	972.548.6800 A302		972.377.1550 F146	972.881.5802 G227
TASP Information	972.548.6710 A111	972.985.3722 B101	972.377.1744 F135	972.881.5902 G103
Vice President of Administration		972.758.3831 A420		
Vice President of Academic Affairs		972.758.3805 B419		
Vice President of Student Development	972.548.6770 A108		972.377.1770 F135	972.881.5770 G227

OTHER CAMPUS SITES	CPC	CYC	PRC	SCC
CCCCD@ALLEN	214.495.5780 A101			
College Center at Rockwall	972.772.2180 224			



## ACADEMIC DIVISIONS

### BUSINESS & COMPUTER SCIENCE

**Dean: Dr. Lillie Palmer**

CPC-B305 .....	972.548.6830
PRC-H245 .....	972.377.1731
SCC-J122.....	972.881.5846

**Academic Advisor:**

Terrence Brennan .....	PRC-F143.....	972.377.1513
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**Areas of Emphasis:**

- Accounting
- Business Administration
- Business Law
- Computer Information Systems
- Computer Science
- Culinary Arts
- E-Business Media
- Economics
- Hotel/Restaurant Management
- Management Development
- Marketing
- Medical Transcription
- Office Systems Technology
- Paralegal/Legal Assistant
- Pre-Law
- Real Estate

**Degrees:**

- AA
- AA
- N/A
- AAS, C
- AS
- AAS
- AAS, C
- AA
- AAS, C
- AAS, C
- AAS, C
- C
- AAS, C
- AAS, C
- N/A
- AAS, C

### DEVELOPMENTAL EDUCATION

**Dean: Ms. Juanita Austin**

CPC-B336 .....	972.548.6894
PRC-F210 .....	972.377.1585
SCC-K104 .....	972.881.5720

**Academic Advisors:**

Dawn Alexander.....	SCC-G202.....	972.881.5109
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**Areas of Emphasis:**

- Developmental Mathematics
- Developmental Reading
- Developmental Writing
- English as a Second Language (ESL)

**Degrees:**

- N/A
- N/A
- N/A
- N/A

### LEGEND

**Transfer degrees:**

- AA** – Associate of Arts
- AS** – Associate of Science
- N/A** – Not Applicable

**Workforce Education:**

- AAS** – Associate of Applied Science
- C** – Certificate
- E** – Enhanced Skills Certificate

### ENGINEERING TECHNOLOGY

**Dean: Mr. John Baltzer**

CPC-B305 .....	972.548.6830
PRC-H210 .....	972.377.1715

**Academic Advisor:**

Susan Nethery.....	PRC-F142.....	972.377.1779
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**Areas of Emphasis:**

- Computer-Aided Drafting and Design
- Computer Network Technology
- Electronic Technology
- Electronic Engineering Technology
- Engineering
- Interior Design-Commercial
- Pre-Architecture
- Pre-Engineering
- Semiconductor Manufacturing Technology
- Telecommunications Technology

**Degrees:**

- AAS, C, E
- AAS, C
- AAS, C
- AAS, C
- AS
- AAS, C
- N/A
- N/A
- AAS, C
- AAS, C

### FINE ARTS

**Dean: Mr. Michael Crawford**

CPC-B305 .....	972.548.6830
PRC.....	972.377.1507
SCC-A177 .....	972.881.5107

**Academic Advisor:**

Todd Fields .....	SCC-G105.....	972.881.5903
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**Areas of Emphasis:**

- Applied Graphic Design Technology
- Art
- Commercial Music
- Dance
- Music
- Photography
- Theatre

**Degrees:**

- AAS, C
- AA
- AAS, C
- AA
- AA
- AA
- AA

## HUMANITIES & INTERNATIONAL STUDIES

**Dean: Mr. Mitchell Smith**

CPC-B305 .....	972.548.6830
PRC-F210 .....	972.377.1585
SCC-B189.....	972.881.5810

**Academic Advisor:**

Todd Fields .....	SCC-G105.....	972.881.5903
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**Areas of Emphasis:**

Areas of Emphasis:	Degrees:
• American Sign Language	AA
• Communications	N/A
• Education	N/A
• English	AA
• Foreign Languages	
• Chinese, Italian, Japanese, Russian	N/A
• French, German, Spanish	AA
• Humanities	N/A
• International Studies	N/A
• Interpreter Preparation Program/Deaf	AAS, C
• Philosophy	AA
• Radio and Television	N/A
• Speech	AA

## MATHEMATICS & NATURAL SCIENCES

**Interim Dean: Mr. Kevin Starnes**

CPC-B305 .....	972.548.6830
PRC-F210 .....	972.377.1585
SCC-K102 .....	972.881.5880

**Academic Advisor:**

Tori Hoffman .....	SCC-G103.....	972.881.5783
Windy Pitcock .....	SCC-G103.....	972.881.5782

**Areas of Emphasis:**

Areas of Emphasis:	Degrees:
• Biology	AS
• Biotechnology	AAS, C
• Chemistry	AS
• Dietary Manager	C
• Environmental Science	AS
• Environmental Technology	AAS, C
• Geology	AS
• Horticulture Technology	C
• Mathematics	AS
• Nutrition	AS
• Physics	AS
• Pre-Chiropractic	N/A
• Pre-Dental	N/A
• Pre-Medicine	N/A
• Pre-Pharmacy	N/A
• Pre-Veterinary Medicine	N/A

## PHYSICAL EDUCATION AND ATHLETICS

**Associate Dean/Athletic Director: Ms. Susan Evans**

CPC-B305 .....	972.548.6830
PRC-A110.....	972.377.1752
SCC-A218.....	Physical Education 972.881.5925
	Athletics 972.881.5888

**Academic Advisors:**

Audrey Newsome .....	SCC-G104.....	972.881.5782
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**Areas of Emphasis:**

Areas of Emphasis:	Degrees:
• Athletics	N/A
• Physical Education	AS

## SOCIAL SCIENCES, HEALTH & PUBLIC SERVICES

**Dean: Mr. Gary Hodge**

CPC-E302 .....	972.548.6679
PRC-F210 .....	972.377.1585
SCC-B240.....	972.881.5800

**Academic Advisors:**

Carie Andrews.....	SCC-G106.....	972.881.5773
Lynne Meyer .....	CPC-A108B.....	972.548.6778
Suzon Schroeder .....	CPC-A108C.....	972.548.6778

**Areas of Emphasis:**

Areas of Emphasis:	Degrees:
• Anthropology	AA
• Child Development	AAS, C
• Criminal Justice	AA
• Dental Hygiene	AAS
• Emergency Medical Services	C
• Fire Science	AAS, C
• Geography	AA
• Government	AA
• Health Science	N/A
• History	AA
• Nursing	AAS
• Phlebotomy	C
• Physical Therapist Assistant	AAS
• Psychology	AA
• Respiratory Care	AAS
• Service-Learning	N/A
• Social Work	AS
• Sociology	AA

## ABOUT COLLIN COUNTY COMMUNITY COLLEGE DISTRICT

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Since offering its first classes at area high schools in 1985, Collin County Community College District (CCCCD) has expanded to serve more than 33,000 credit and continuing education students and offers over 100 degrees and certificates in a wide range of disciplines.

Recognized as a leader in higher education, CCCC is the first community college in the nation to offer teacher certification and the only community college in Texas to have concurrent admissions agreements with major universities, including the University of North Texas and the University of Texas at Dallas. CCCC's recent accolades include:

- Theatre professor Brad Baker was named U.S. Professor of the Year by CASE (Council for the Advancement and Support of Education) and USA Today.
- The Texas Workforce Commission awarded CCCC an \$887,146 workforce skills development grant that will provide training to nearly 1,000 employees at Collin County-based businesses.
- CCCC's Service-Learning program was presented the national Collaboration Award by Campus Compact for outstanding partnerships with business and industry.
- The Learning Communities and Service-Learning programs were presented the 2001 National Bellwether Award for outstanding and innovative practices.
- CCCC received funding from a \$2.8 million grant for high-tech training, awarded by the US Department of Labor.

CCCC offers credit and continuing education courses on campus, at area businesses, and via the Internet. The district has six locations throughout its service area, each of which specializes in a particular academic discipline in addition to providing core curriculum courses.

### **CENTRAL PARK CAMPUS**

CCCC opened its first campus, the Central Park Campus (CPC) in McKinney in January 1986. Located on 115 acres just west of Highway 75 on Highway 380, the campus includes a 207,000 square-foot facility that is the center for the college's

health and public service programs. The James and Pat Aston Center for Health Studies, a dental clinic, a fire training center, and law enforcement academy are housed at CPC. Programs include emergency medical technology, nursing, dental hygiene, respiratory care, law enforcement, and fire science.

### **SPRING CREEK CAMPUS**

The Spring Creek Campus was completed in fall 1988 and is located at the intersection of Jupiter Road and Spring Creek Parkway in Plano. The 430,000 square-foot facility houses the 360-seat John Anthony Theatre, the Black Box Theatre, THE ARTS gallery, Express Hall Gymnasium, the Maureen Connolly Brinker Center Court (tennis), and Sewell Field (baseball). College Place Apartments, an on-campus housing complex owned by the CCCC Foundation, Inc. and operated by Century Campus Housing Management of Houston, is also located at SCC. The campus's academic specialties include fine arts, humanities and international studies, and mathematics and natural sciences. SCC is also home to several Express sports teams, including men's basketball, baseball, and tennis and women's volleyball, basketball, and tennis.

### **PRESTON RIDGE CAMPUS**

In July 1995, CCCC opened its third campus, the Preston Ridge Campus (PRC), located north of Highway 121 and east of Highway 289 (Preston Road) in Frisco. The Preston Ridge Campus is comprised of Heritage Hall, Founders Hall, Alumni Hall, and University Hall. The Sue Willard Olivier Community Gardens and the Superdome, a world-class bicycling facility, are also located at this campus. Preston Ridge Campus is home many of the college's high-tech and business programs, such as biotechnology, engineering technology, semiconductor manufacturing, computer network technology, computer-aided drafting and design, office systems technology, and telecommunications technology. PRC is the site for the national Cisco Certified Training Center, which serves the eight-state Southwest region. The University of North Texas offers upper division courses at PRC.

## **COURTYARD CENTER**

The Courtyard Center for Professional and Economic Development (CYC) was opened in 1993. Located on Preston Park Boulevard in Plano, near the intersection of Park Boulevard and Preston Road, CYC is an 80,000 square-foot, complex that houses the continuing education division, the Business Solutions Group, which provides customized training to area businesses, the Small Business Development Center, and the Plano Economic Development Corporation. Courses offered at CYC include up to 2,000 continuing education classes, real estate courses, contract and corporate training, Seniors Active in Learning (SAIL), and Project NEW (Network to Empower Entrepreneurial Women).

## **CCCCD@ALLEN AND COLLEGE CENTER AT ROCKWALL**

CCCCD@ALLEN and the College Center at Rockwall opened in fall 1999. Both sites, located within Allen and Rockwall High Schools, respectively, offer credit and continuing education courses and house classrooms, a Transfer Lab, a Career Services Office, on-site advising, registration, and financial aid assistance.

CCCCD@ALLEN is the site for the culinary arts program and the teacher certification program. The teacher certification program is geared to individuals who hold a bachelor's degree with work experience and are interested in a non-traditional route to the teaching profession.

## **COMMUNITY SERVICES**

Various CCCCDC facilities are open to residents of Collin and Rockwall Counties and The Colony in Denton County, including the Learning Resource Centers, Career Services, fitness centers, and dental clinic.

In addition, the community is invited to attend the many events held on CCCCDC campuses, such as award-winning theatre productions, guest speakers, art exhibits, concerts, and athletic events. Community members may also lease space at CCCCDC campuses to set up vendor booths or host conferences and meetings.

Collin County, with a population of approximately 485,328, supports the college district through ad valorem taxes. The county begins approximately 15 miles north of downtown Dallas and covers 836 square miles. In addition to Collin County, Rockwall County and The Colony in Denton County are part of CCCCDC's service area, as designated by state legislation.

## **MISSION STATEMENT**

Collin County Community College District is a student and community-centered institution committed to developing skills, strengthening character, and challenging the intellect.

## **CORE VALUES**

We have a passion for:

- Learning
- Service and Involvement
- Creativity and Innovation
- Academic Excellence
- Dignity and Respect
- Integrity

## **PURPOSE STATEMENT**

Through its campuses, centers, and programs Collin County Community College District fulfills its statutory charge to provide:

- Academic courses in the arts and sciences to transfer to senior institutions.
- Technical programs, leading to associate degrees or certificates, designed to develop marketable skills and promote economic development.
- Continuing adult education programs for academic, professional, occupational, and cultural enhancement.
- Developmental education and literacy programs designed to improve the basic skills of students.
- A program of student development services and learning resources designed to assist individuals in achieving their educational and career goals.
- Workforce, economic, and community development initiatives designed to meet local and statewide needs.
- Other purposes as may be directed by the CCCCDC Board of Trustees and/or the laws of the State of Texas.



## CCCCD BOARD OF TRUSTEES

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**Cynthia Bauge**  
Plano

**Profession:** Vice President of Grant Sales, Inc. in Plano

**Other Involvements:** Member of the CCCC Foundation, Inc. Board; Plano Chamber of Commerce (Athena Award Winner. Business Woman of the Year); member of Plano Planning & Zoning Commission; member of the Plano Tax Abatement Committee; member of the Plano Tax Increment Financing Committee.

*As we continue to enhance the lifelong learning experience for our students, we are strengthening our partnerships with our communities, business and industry, and other educational institutions. These are indeed exciting times at CCCC!*



**Jim Biggerstaff**  
Plano

**Profession:** Owner of Biggerstaff Flowers

**Other Involvements:** Member of the CCCC Foundation, Inc. Board; Founding President of the Texas Association of Community Colleges Foundation, 1996; Plano Chamber of Commerce's Small Businessman of the Year, 1999; Plano's Citizen of the Year

*CCCCD is the best single asset that Collin County has. Finding ways to make the college even better for the students and the business community of Collin County is my top priority.*



**Dr. E.T. Boon**  
Allen

**Profession:** Retired dentist

**Other Involvements:** President of the Allen Economic Development Corporation; member of the Collin County Planning Board; Texas Industrial Development Council-Texas Volunteer Industrial Developer of the Year Award.

*The reason I serve on the board is to give students quality education at affordable tuition. Any person in Collin County desiring an education at CCCC will be given the opportunity regardless of financial resources.*



**Dr. J. Robert Collins**  
Farmersville  
Founding Board Member

**Profession:** Teaches senior-level management courses in the College of Business and Technology for Texas A&M University at Commerce

**Other Involvements:** Chairman of the Board of the Greenville Christian School; member of the External Engineering Advisory Board for Texas A&M University at College Station

*As we planned from the beginning, the college offers residents an opportunity to get the best value education locally. This is a top-notch education for people who might not want to leave the county. The college makes the lifelong-learning experience very convenient for Collin County residents.*



**Carey Cox  
McKinney**  
Founding Board Member

**Profession:** President of Carey Cox Company (Industrial Real Estate Broker) in McKinney

**Other Involvements:** President of the North Texas Commercial Association of Realtors®, a Director of Grayson-Collin Rural Rail District

*The college has established a pattern of excellence in education that has now spread to every school district in Collin County. The college has become a cultural leader through its Fine Arts performance offerings.*



**Brenda Willard Goodell  
Celina**

**Profession:** Former Chief Financial Officer for a major agricultural company

**Other Involvements:** Member of Southwest Credit Association Board of Directors; Secretary of the Celina ISD Board of Trustees; Appraisal Review Board for Collin County Appraisal District

*I am honored to be selected as a member of the CCCC Board of Trustees. The college has done a wonderful job in meeting the needs of the community. Many students in Celina have benefited from attending Collin County Community College, many of whom may not have pursued higher education if it had not been for CCCC.*

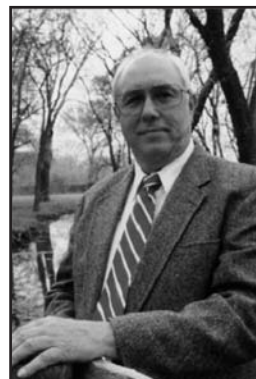


**Glenn Justice  
Parker**

**Profession:** Retired mortgage banker; owned the Glenn Justice Mortgage Co.

**Other Involvements:** Member of the Plano Economic Development Board and the Tax Abatement Committee

*I think CCCC is the greatest asset Collin County has and will be a leading factor in the continuous growth. The administration is one of the best and will continue to expand the facilities in the future to higher levels.*



**Sam Roach  
Frisco**  
Chairman

**Profession:** Owns Sam Roach Business Center and Sam Roach Real Estate

**Other Involvements:** Member of the CCCC Foundation, Inc. Board, Chairman of the Frisco Economic Development Corporation and member of Frisco Chamber of Commerce

*I am proud to be a part of our college because it continues to expand services and programs to meet the needs of our ever-growing student population. CCCC is the best investment that the citizens of Collin County could have ever made, since it provides the educational foundation for our future leaders.*



**Tino Trujillo  
Plano**  
Founding Board Member

**Profession:** Owner of Tino's Restaurant and Tino's Too Restaurant in Plano

**Other Involvements:** Member of Plano Rotary Club, Director of the Craig Gilbert Foundation and the Hendricks Academy of Honor Foundation (both scholarship foundations)

*I think the main thing is to make college affordable for students that otherwise would not be able to go to a four-year college. I am very proud to be a Trustee since the beginning of the college, because we provide education for financially challenged students in Collin County.*

## ADMISSIONS AND REGISTRATION

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### ADMISSIONS PROCEDURES & RESIDENCY

CCCCD operates under an “open door” 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 admission 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 admission requirements in advance of registration.

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

### NEW STUDENTS

New students should submit to the Admissions Office:

1. An application for admission. 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 all new students must take TASP before enrolling in a Texas Public Institution of Higher Education. Students applying for and/or receiving financial aid or veterans benefits are 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. Students who have completed the SAT and/or ACT are encouraged to submit their scores.
4. Admission to the college does not guarantee admission to a specific program of study. Programs and certificates in dental hygiene, dietary manager, emergency medical services, firefighter certificate, hotel/restaurant management, interpreter preparation program/deaf, nursing, physical therapist assistant and respiratory care have additional admissions criteria. Refer to the specific program in this catalog, and contact the division office for information on program requirements.

### TUITION REBATES FOR CERTAIN UNDERGRADUATES

First-time students entering Texas public institutions of higher education may be eligible for a \$1,000 tuition rebate after earning a baccalaureate degree from a general academic teaching institution. To be eligible for the rebate, a student must have attempted no more than three hours in excess of the minimum number of semester credit hours required to complete the degree in the catalog under which they graduated. Community college students hoping to qualify for the rebate should check with academic advising at the university where they plan to transfer to be sure the courses they are taking will apply to the university degree program they are pursuing.

### RETURNING STUDENTS

Former CCCCDD 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 the last college or university attended since their last enrollment at CCCCDD and documentation of TASP status are required. For more information on residency, see page 15.

### STUDENTS WITHOUT DIPLOMA OR GED

Students 18 years or older without a high school diploma or GED may take local assessment and be admitted under individual approval. Students under 18 without a high school diploma or equivalent will be required to:

1. Complete CCCCDD assessments in reading, writing, and math (if necessary, based on TASP status and scores),
2. Provide documentation that he/she is no longer enrolled in a high school program,
3. Submit an official transcript from the last high school attended,
4. Submit TASP scores or provide SAT, ACT or TAAS scores showing exemptions or take the alternative test (see TASP Section for details),
5. Written parental/guardian permission, and
6. Contact an academic advisor.

Anyone under 18 admitted without a GED or high school diploma will be strongly encouraged to complete the GED during the first semester of his/her enrollment at CCCCD. Course selection and load may be restricted. Continued enrollment is provisional.

### GED CLASSES

All libraries in Collin County offer video catalogs through which citizens may secure free lessons and practice tests to help them pass the GED test.

Practical Parent Education offers Family Literacy programs where children and parents may receive instruction in reading, writing, mathematics, and parenting skills.

### TRANSFERRING TO CCCCD

Transfer students who are in good standing academically and otherwise at the last institution of higher education they attended are eligible for admission. An official college transcript from the college most recently attended and TASP status documentation are required.

Students who transfer to CCCCD from other institutions of higher education may 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.
2. An official transcript from all institutions of higher education attended by the student must be on file at CCCCD.
3. Students must be currently admitted to CCCCD to request a degree plan.
4. Official course descriptions from the catalog under which the student attended may be required for evaluation.
5. Credit for courses equivalent to those listed in the CCCCD 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.
6. Only the grade and credits earned in the most recent repeated course will be used in computing the grade point average and applied toward degree or program requirements.
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 one additional hour of electives are required. Credit for PHED 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 CCCCD from other institutions, there is an 18 credit hour residency requirement to earn an associate degree from CCCCD. Students obtaining certificates containing 18 hours or less must complete course work in residence at CCCCD. 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. CCCCD 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.

### HOME-SCHOOLED STUDENTS

Home-schooled students interested in applying to CCCCD who are under the age of 18 should:

1. Submit TASP scores, provide official SAT, ACT, or TAAS scores which show TASP exemption, or take the alternative TASP test (see TASP section for details),
2. Complete CCCCD assessments if required,
3. Submit an official transcript or notarized academic record from the last or current high school attended (including home school programs),
4. Provide written parental/guardian permission, and
5. Contact an academic advisor.

Course selection and load are not to exceed two college credit courses per semester. Admission and continued enrollment are provisional.

### HIGH SCHOOL CONCURRENT ENROLLMENT

#### (PROJECT FIRST STEP)

High school students who have completed their junior year and are interested in concurrent admission, also known as Project First Step, at CCCCD should:

1. Contact their high school counselor's office to obtain a concurrent enrollment permission form with appropriate signatures,
2. Provide an official high school transcript,
3. Take required CCCCD institutional assessments (if necessary, based on TASP status and scores, and course selection),
4. Submit TASP scores or provide SAT, ACT, or TAAS scores showing exemptions or take the alternative test (see TASP section for details), and
5. Contact an academic advisor.



Instructor approval may be required. To continue in the concurrent program, a grade of "C" must be maintained. Students 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. Course selection may be limited and course load should not exceed two classes per semester.

## TECH PREP

Tech Prep allows students to earn college credit while in high school. The Tech Prep multi-year planned sequence of study for a technical field begins in high school and extends through one or two years at CCCCD.

High school students who were enrolled in a tech prep program while in high school may be eligible to receive up to 12 tuition-free college credits for courses offered at the college.

### CRITERIA FOR ELIGIBILITY:

- Complete a high school tech prep class with a grade of "B" or better. (Keyboarding classes require a minimum grade of 85%.)
- Enroll and successfully complete 12 credit hours at CCCCD within 24 months of high school graduation.

If you meet the criteria, bring your official high school transcript to the Admissions and Records Office at CCCCD to be formally evaluated and to request your tuition-free college credit. Credits will not appear on your college transcript until you petition for those credits.

Visit our website at <http://ftp.ccccd.edu/globaledge/index.htm> to download the directions and petition for your Tech Prep credits.

## INTERNATIONAL STUDENTS

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 submit to the International Office (SCC-C225):

1. An application for admission.
2. An official TOEFL score\* of 525 or the computerized TOEFL score of 197 or above. CCCCD's institutional code is **6805**. The institutional TOEFL score of 525 from the University of North Texas or University of Texas at Arlington may be substituted for the TOEFL. Students who can document graduation from the Intensive English Language Institute of the University of North Texas will be exempt from the TOEFL requirement.

3. A notarized Affidavit of Support form dated within six months of the beginning of the semester and the supporting evidence statement.
4. An official transcript (mark sheets, school records) from the last school attended.
5. All original immigration documents, including a valid visa (I-94 arrival/departure record), an unexpired passport, copy of the I-20, and the original Affidavit of Support, to be copied and kept on file.
6. TASP or alternative test score (to be taken upon arrival at CCCCD).

It is recommended that all admission materials be received 30 days prior to On-Site Registration to ensure issuance of the I-20. Foreign transcripts will not be evaluated.

***I-20's will not be issued for students seeking entrance into the United States on a permanent basis.***

*\* Students with a TOEFL score between the range of 424-524 (paper and pencil version) or 113-193 (computer version) may be considered for admission upon the written recommendation of the ESL Coordinator and by meeting all other requirements. Students will be admitted on a provisional basis and will be required to be enrolled in 12 semester hours of ESL courses continuously for both the fall and spring semesters.*

### TRANSFER INTERNATIONAL STUDENTS WITHIN THE UNITED STATES (F-1, F-2 VISA)

In addition to the above requirements the following items must also be submitted:

1. A copy of your current I-20, passport, visa, I-94 card
2. Transfer clearance from your international student advisor from the last college or university attended.
3. TASP or alternative test score (to be taken upon arrival at CCCCD) or SAT/ACT scores showing exemptions. See TASP section for details.

Transfer students should submit admission requirements prior to the first day of registration to ensure enrollment.

For more information, contact Rebecca Crowell, Coordinator of International Students, at SCC-C225, 972.516.5011.

## STUDENTS ON ACADEMIC SUSPENSION

Students currently on suspension from or who are otherwise ineligible for admission to other institutions of higher education must petition for admission. For consideration, students must do all of the following **prior** to the first class day:

1. Schedule an interview with the Academic Action Coordinator.
2. Provide official transcripts from all colleges and universities previously attended **at the time of interview**, including TASP status documentation.
3. Provide completed petition for enrollment form.
4. Provide a completed admission form.

Admission and continued enrollment are provisional. The college reserves the right to limit the number of hours and/or specify courses in which a student on suspension may enroll. Probationary status is imposed until the student has a 2.0 cumulative GPA for two successive semesters. Students on academic suspension are required to enroll in a studies skills course as a condition of admission to CCCCD.

See “Academic Standards” on page 22 or contact the Academic Action Coordinator at 972.881.5165 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.

1. An in-county student is an individual who is a resident of Texas and who resides in Collin County on the census date of the term.
2. An out-of-county student is a resident of Texas who resides outside of Collin County on the census date of the term.
3. An out-of-state student is an individual who has not resided in Texas for 12 months preceding registration. Most students on temporary visas will also be classified as non-residents for tuition purposes. Contact the Admissions Office for visas eligible for in-state residency.

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 enrollment at CCCCD. Changes of address, name, etc. must be reported promptly to the Admissions and Records Office. This enables students to receive registration and other information from various college departments and programs. Changes of address affecting residency should promptly be reported to the Admissions and Records 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.

## DOCUMENTS TO SUPPORT RESIDENCY

Documentation of Texas residency may be required if the information given on the Application for Admission is not adequate to prove residency. If so, the following documents may be used in meeting residency requirements:

- Permanent Texas driver’s license or Texas ID card (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(s) covering the past 12 months
- Collin County property tax statements

## 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 or most recent property tax statement is required for verification. If this waiver is based on a student’s parents’ property ownership, two copies of their most recent Federal Income Tax forms showing the student as a dependent is also required. Once Texas residency has been established (12 months), ad valorem waivers will no longer be necessary. Property owners on most types of temporary visas are not eligible for the ad valorem waiver. Students must generally be U.S. citizens or permanent residents to be eligible for an ad valorem waiver.

## ORIENTATION

New Student Orientation provides an overview of CCCCD’s policies, procedures, and services. The initial concerns of both traditional and non-traditional students are addressed. Orientation dates and times are available at the information centers and can be found in the current *Schedule of Classes*.

## REGISTRATION PROCEDURES

### TELEPHONE AND WEBLINE REGISTRATION

Telephone and Weblines Registration provide students with an opportunity to register early in courses for the upcoming semester. This process is designed for students who have completed admissions, TASP requirements, and assessment requirements and met with an advisor. Telephone and Weblines Registration enable students to have earlier course selection and more comprehensive academic advisement, and utilize the Tuition Installment Plan. See the current *Schedule of Classes* for a listing of dates, times, and complete instructions.

### ON-SITE REGISTRATION

On-Site Registration is scheduled prior to the beginning of classes with admissions, assessment, TASP testing, and advising services available at that time. Comprehensive admissions, assessment, TASP testing, and advising programs are more easily obtained prior to On-Site 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 On-Site Registration Registration times and locations.

## LATE REGISTRATION

Students who must register late should do so within the published Late Registration schedule. Students registering late must meet all TASP requirements. A Late Registration fee will be assessed. This fee is not assessed to students who have completed registration during Telephone, Weblines, or On-Site Registration periods and are making schedule changes, or to students who are registering on an audit basis. Students may also add available classes prior to the third class hour of the course being added. See page 18 for details.

## REGISTRATION FOR CONTINUING EDUCATION AND WORKFORCE DEVELOPMENT CLASSES

Each semester CCCCD offers Continuing Education classes to community members through the Continuing Education and Workforce Development Division. Registration for these classes can be done in four ways:

- Walk-in registration:** Available at Courtyard Center, Central Park, Preston Ridge or Spring Creek: Times are listed in the current *Continuing Education Schedule of Classes*.
- Phone-in registration (VISA, Mastercard, Discover only):** Call 972.548.6855 or 972.985.3711. Times and dates are listed in the current *Continuing Education Schedule of Classes*.
- Mail-in registration:** Send your registration information to: Registration, Collin County Community College, Courtyard Center for Professional and Economic Development, 4800 Preston Park Blvd., Box 12, Plano, Texas 75093  
See the current *Continuing Education Schedule of Classes* for registration deadlines.
- Fax-in registration (credit card only):** Check the current *Continuing Education Schedule of Classes* for fax availability. Fax your registration to 972.985.3723 or 972.548.1702.  
See page 37 for more information on Continuing Education.
- Online registration (credit card only):** Go to [www.ccccd.edu/ce](http://www.ccccd.edu/ce) to see the current *Continuing Education Schedule of Classes* and registration procedures.

## STUDENT ID CARDS

All credit students at CCCCD are required to have a Student ID Card to use services provided by the Bookstore, Career Services, Computer Lab, Enrollment Management, Fitness Center, Library, Math Lab, Student Activities, Testing Center, and other offices and labs. Students will have one ID card to use throughout their enrollment at the college. ID cards are made by Student Activities.

A \$2 non-refundable fee (see page 17) is assessed with other registration fees for each student who has not previously purchased an ID card. First-time cards are issued after students have registered and paid for their courses.

For a \$2 fee (see page 17), a replacement card will be issued for students whose card has been lost, stolen, or damaged, who have had a name change, or who would prefer a new photo. Only currently enrolled students may request a replacement ID card. Contact Student Activities for more information.

## 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.

Students participating in commencement ceremonies must purchase graduation regalia (cap and gown) from the college bookstore.

It is the policy of CCCCD to revoke check writing privileges to persons from whom we have received more than three returned checks.

### TUITION AND FEES SCHEDULE\*

Credit Hours	In-County \$29/credit hour	Out-of-County \$37/credit hour	Out-of-State/Country \$72/credit hour
1	\$37.00*	\$39.00	\$212.00*
2	\$60.00	\$76.00	\$222.00*
3	\$89.00	\$113.00	\$232.00*
4	\$118.00	\$150.00	\$290.00
5	\$147.00	\$187.00	\$362.00
6	\$176.00	\$224.00	\$434.00
7	\$205.00	\$261.00	\$506.00
8	\$234.00	\$298.00	\$578.00
9	\$263.00	\$335.00	\$650.00
10	\$292.00	\$372.00	\$722.00
11	\$321.00	\$409.00	\$794.00
12	\$350.00	\$446.00	\$866.00
13	\$379.00	\$483.00	\$938.00
14	\$408.00	\$520.00	\$1,010.00
15	\$437.00	\$557.00	\$1,082.00
16	\$466.00	\$594.00	\$1,154.00
17	\$495.00	\$631.00	\$1,226.00
18	\$524.00	\$668.00	\$1,298.00
19	\$553.00	\$705.00	\$1,370.00
20	\$582.00	\$742.00	\$1,442.00
21	\$611.00	\$779.00	\$1,514.00

\* Includes minimum tuition required by law.

+ Tuition and fees are subject to change upon approval of the CCCCD Board of Trustees.

**FEES\***

Other fees are applied as required regardless of residency.

**Per Semester**

Student Records fee .....\$2

**First Enrollment**

Student ID Card fee\*\* .....\$2

**Other Fees**

Audit fee\*\*\* .....\$25 per course

Credit by Exam fee\*\*\* .....\$30 per course

Lab fees† .....\$0-24 per lab

Late Registration fee\*\*\* .....\$10

Returned Check fee .....\$20

\*\* The Student ID Card fee is a non-refundable, one-time fee charged to all students for their initial ID card. Replacement cards are \$2. Only currently enrolled students may request a replacement Student ID Card. The Student ID Card fee is subject to change. Any change in the cost of a Student ID Card or replacement card will be listed in the *CCCCD Schedule of Classes*.

\*\*\*Non-refundable

† Some Fine Arts, Music, and Physical Education classes have higher fees

*NOTE: Firefighters qualifying for a tuition and lab fee waiver are required to pay the Building Use and Student Activities fees.*

*NOTE: Valedictorians qualifying for a tuition waiver are required to pay the Building Use and Student Activities fees.*

*NOTE: Veterans qualifying for a tuition and fee waiver are required to pay the Student Activities and Student Records fees.*

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

**COST PER CREDIT HOUR EXAMPLE**

In addition to tuition, each credit hour cost includes the following fees: Building Use Fee (\$9) and Student Activities Fee (\$1).

Per Hour	In-County	Out-of-County	Out-of-State
Tuition	\$19	\$27	\$62
Bldg. Use Fee	9	9	9
Student Activities Fee	1	1	1
<b>Total</b>	<b>\$29</b>	<b>\$37</b>	<b>\$72</b>

**SENIOR CITIZEN REDUCED TUITION**

Students age 55 and older by the first class day of the semester are eligible to pay a reduced tuition as follows:

**Age 55-64**—\$10 per credit hour for tuition and building use fee; other fees will be charged as stated above.

**Age 65 and Older**—Six credit hours per semester are free on a space-available basis; student must pay building use fee; other fees will be charged as stated above. See current *Schedule of Classes* for more information.

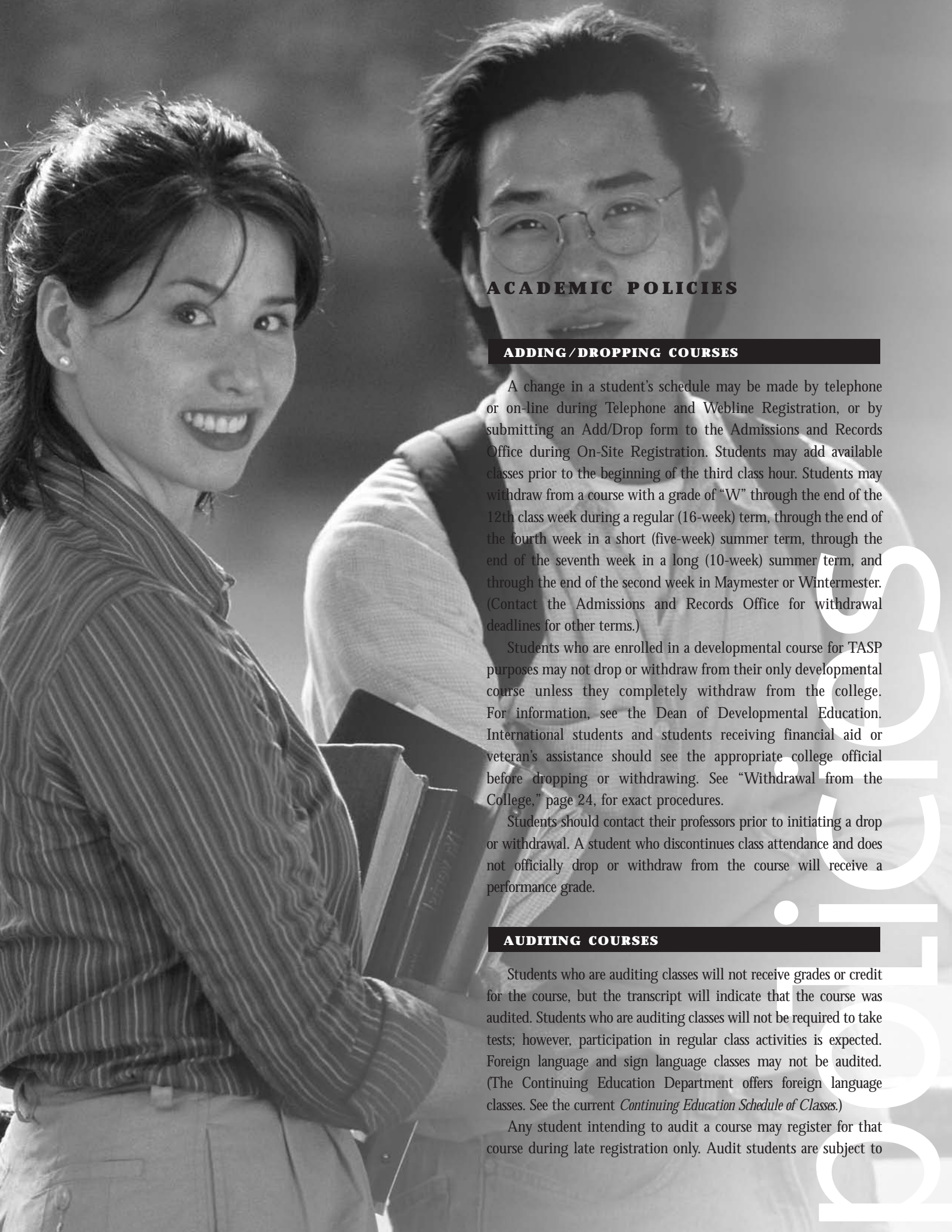
**REFUNDS**

Refund calculations are based on the state-mandated refund policy. Full (100%) refunds are calculated on withdrawals and drops occurring prior to each semester's first class day. Each semester's first class day is always the first official day of the semester, not the first day of an individual's class.

Refunds are processed approximately five weeks after the first class day.

The complete refund policy is listed in the *CCCCD Schedule of Classes*.





## ACADEMIC POLICIES

### ADDING/DROPPING COURSES

A change in a student's schedule may be made by telephone or on-line during Telephone and Weblines Registration, or by submitting an Add/Drop form to the Admissions and Records Office during On-Site Registration. Students may add available classes prior to the beginning of the third class hour. 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, through the end of the seventh week in a long (10-week) summer term, and through the end of the second week in Maymester or Wintermester. (Contact the Admissions and Records Office for withdrawal deadlines for other terms.)

Students who are enrolled in a developmental course for TASP purposes may not drop or 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. See "Withdrawal from the College," page 24, for exact procedures.

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

### AUDITING COURSES

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

Any student intending to audit a course may register for that course during late registration only. Audit students are subject to

the usual registration process. A special non-refundable audit fee is assessed for each class in addition to regular tuition and fees.

The On-Site Registration period is reserved for students registering for credit. Those registering for credit during this time may not later change their status to audit (non-credit). However, audit students may change to credit status prior to the term's census date.

#### PASS/FAIL GRADE OPTION

Non-degree seeking students may select a pass/fail grade option for foreign language, sign language, and creative writing courses. This option is not available for students working towards a degree plan or intending to transfer to another institution. To select a pass/fail grade, complete the appropriate form at the Admissions and Records Office on or before the census date of the term.

#### 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, CCCCD 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 Admissions and Records Office.

#### GRADING SYSTEM

A	Excellent	4 grade points per credit hour
B	Above Average	3 grade points per credit hour
C	Average	2 grade points per credit hour
D	Below Average	1 grade point per credit hour
F	Failure	0 grade points per credit hour

W	Withdrawal	0 grade points per credit hour; is not computed toward cumulative GPA or cumulative hours.
I	Incomplete	0 grade points per credit hour; is not computed toward cumulative GPA unless it is replaced with a performance grade. (See "Incomplete Grades & Contracts" section.)
IP	In-Progress	0 grade points per credit hour; not computed toward cumulative GPA. Student has completed 70 percent of the program but is not yet at competency level; must complete the remaining work during the next long semester or receive an "IP" as the permanent grade. "IP" earned only in ENGL 0300, 0305, 0310, 0315 and ESL classes.
AU	Audit	0 grade points per credit hour; is not computed toward cumulative grade point average nor cumulative hours.
CR	Credit	0 grade points per credit hour; is not computed in GPA but is computed in cumulative hours. Earned only when recording non-traditional credit or continuing education units; will not meet residency hours.
Z	No grade reported	0 grade points per credit hour until it is replaced by professor with a performance grade; is not computed in cumulative grade point nor cumulative hours.
P	Pass	0 grade points per credit hour; is not computed in GPA but is computed in cumulative hours.

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. Grades are available through Telephone EXpress (TEX).

#### 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 CCCCD should request a degree plan prior to the completion of 30 credit hours. Students must be currently admitted to CCCCD to request a degree plan. 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 the most recent catalog.

## HIGH ACADEMIC ACHIEVEMENT

A student who completes specific course requirements for a degree or certificate with a minimum cumulative grade point average of 2.0 is a candidate for graduation.

Degree honors will be awarded for students with the following cumulative grade point average at CCCC:

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

Honors are calculated using all CCCC college-level coursework and transfer courses from other accredited colleges and universities. (Grades earned in developmental education are not included.)

Students participating in commencement ceremonies must purchase graduation regalia (cap and gown) from the college bookstore.

## ASSOCIATE DEGREES

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 48-70 for specific degree plans. To graduate, students must complete a minimum of 18 credit hours at CCCC and satisfy all other degree requirements. Non-traditional and developmental course credit does not meet this residency requirement.

Candidates for an associate's degree should submit an application for graduation 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 by the preceding spring semester deadline. Otherwise, summer graduates may participate in the following year's ceremonies.

## CERTIFICATE PROGRAMS

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. Students earning certificates may participate in commencement ceremonies. Although certificates are normally one year in length, the specific number of credit hours varies by program area.

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

All students who complete 12 or more quality credit 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. If no performance grade is specified on the contract and the contract is not fulfilled, an "I" will remain 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 Academic Affairs, no more than 18 hours of NTCC may be counted toward a degree. NTCC will be transcribed only after six hours traditional, non-transfer credit is achieved at CCCC.

For additional information regarding College-Level Examination Program (CLEP) examinations, departmental examinations, advanced placement tests, Tech Prep, armed forces credit and credit for the completion of the Certified Professional Secretaries examination, contact the Director of Testing or the Admissions and Records Office.

## 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 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. Students planning to use CLEP credit to meet degree requirements at other institutions should check the requirements of the receiving institution. CLEP General Exams are not evaluated for credit at CCCCD. The college uses the following criteria for CLEP Subject Examination evaluation:

1. 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.
2. CLEP credits shall not be granted if they duplicate credits for courses already completed.
3. 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.
4. 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 (DEPARTMENTAL EXAMS)**

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 or previously enrolled or have earned credit 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.

## **OUTSIDE AFFILIATIONS**

All learning experiences undertaken in affiliation with outside agencies are under the control and supervision of a faculty member or clinical coordinator at CCCCD.

## **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 an institutional credit by exam/portfolio review form from the Director of Testing at the 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 seeks 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 they wish to inspect. Contact the registrar for procedures on students' rights of inspection, review, and correction of educational records.

### **DISCLOSURE OF EDUCATION RECORDS**

CCCCD will disclose information from a student's education records only with the prior 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 other schools.
3. 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.
4. 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.
5. If required by a state law requiring disclosure that was adopted before Nov. 19, 1974.
6. To organizations conducting certain studies for or on behalf of the college.



## ACADEMIC STANDARDS

All students are encouraged to work toward achieving their goals and maintaining scholastic progress throughout their enrollment at the college. Students who maintain a 2.0 or better current and cumulative grade point average (GPA) are considered in good standing.

### STUDENTS ON ACADEMIC ACTION PROGRAM (SOAAP)

SOAAP refers to the policies and procedures that govern CCCC students on any academic action status as outlined below. The policies set forth will be strictly enforced. To this end, students are required to develop an individualized plan for success in consultation with the Assistant Director of Academic Advising and to achieve and maintain a minimum cumulative GPA of 2.0. The Assistant Director of Academic Advising will assist the students in mapping out specific plans to meet the academic standards set by CCCC. Students who do not meet the academic standards and do not earn a minimum 2.0 cumulative GPA will be placed on one of the following academic actions:

### ACADEMIC WARNING

Students on Academic Warning have less than a satisfactory cumulative GPA (less than a 2.0) with less than 18 quality hours\*. A registration hold is not placed on their record, however they will be notified in writing, about their status and encouraged to meet with an advisor and take advantage of the support services available.

\* *NOTE: Quality hours refer to the number of college-level hours a student completes at CCCC.*

### ACADEMIC PROBATION

Students who have less than a 2.0 cumulative GPA, but who have 18 or more quality hours at CCCC, will be placed on Academic Probation and notified in writing of their probationary status. Students on Academic Probation will be required to meet with and obtain the signature of the Assistant Director of Academic Advising on their registration ticket prior to registration for further classes and are not permitted to register through the Telephone or Weblines Registration Systems. Probation students are limited to 12 semester hours during each long semester. Students on Academic Probation will be monitored for satisfactory progress at the mid-semester point and must meet with the Assistant Director of Academic Advising to formulate a plan to raise their GPA, prior to early registration. Probation students are also strongly encouraged to attend CCCC study skills seminars, to enroll in a study skills class and to take advantage of free tutoring services offered by CCCC.

7. To accrediting organizations to carry out their functions.
8. To parents of an eligible student who claim the student as a dependent for income tax purposes unless the student has restricted records disclosure.
9. To comply with a judicial order or a lawfully issued subpoena.
10. To appropriate parties in a health or safety emergency.
11. As it relates to directory information, unless the student restricts directory information.
12. To the student.
13. Results of disciplinary hearing to alleged victim of a crime of violence.

### 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
11. Photo/visual likeness

A student may request that directory information be withheld from the public by completing and filing a request with the Admissions and Records Office. 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

Only the grade and credits earned (whether higher or lower) 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. Otherwise, courses that may be repeated for credit more than one time are specified in the course description.

Veterans should consult the Director of Financial Aid/Veterans Affairs before repeating any course. Transfer students should check at the Transfer Lab or with receiving institutions for repeat policies.

Students who have registered early and have subsequently been placed on Academic Probation must meet with the Assistant Director of Academic Advising prior to the end of the drop/add period as stipulated in the schedule of classes. These students will receive written notification of their probationary status.

### **CONTINUED ENROLLMENT ON PROBATION**

Students whose status is Academic Probation but who wish to continue their enrollment, and have earned a current 2.0 GPA, but still have a cumulative GPA of less than 2.0 may continue their studies at CCCCD as long as they maintain a current 2.0 GPA for each subsequent session. Students on Continued Enrollment on Probation status will have a hold placed on their records and will be required to meet with the Assistant Director of Academic Advising prior to registering for classes. Enrollment stipulations (maximum of 12 hours) and a plan for raising the student's GPA will be required as conditions for continued enrollment.

### **ACADEMIC SUSPENSION**

Academic Suspension occurs when a student whose previous status was Continued Enrollment on Probation fails to earn a current GPA of 2.0 with a cumulative GPA below 2.0. Students with this status will be suspended from the college for one long semester.

Students who registered early and are subsequently placed on Academic Suspension will be administratively withdrawn from CCCCD and will be officially notified of their suspension status.

### **READMISSION AFTER A PERIOD OF ACADEMIC SUSPENSION**

After a period of Academic Suspension (one long semester), a student may be readmitted with Academic Probation status. Before readmission, the student must meet with the Assistant Director of Academic Advising and complete a Petition for Readmission. The meeting with the Assistant Director of Academic Advising is designed to assist the student in formulating an individualized plan for success.

### **ACADEMIC DISMISSAL**

Students who were previously on Academic Suspension, have been readmitted on probationary status, and did not earn a current 2.0 GPA will automatically be dismissed from the college for a period of one year (two long semesters).

### **READMISSION AFTER A PERIOD OF ACADEMIC DISMISSAL**

To be considered for readmission to CCCCD, students must meet with the Assistant Director of Academic Advising, submit a Petition for Readmission, and meet other re-enrollment

requirements based on the student's individual situation, as determined in consultation with the Assistant Director of Academic Advising.

### **STUDENTS ON PROBATION, SUSPENSION, OR DISMISSAL FROM OTHER COLLEGES**

Students seeking admission to CCCCD after being on probation or being suspended or dismissed from other colleges may seek enrollment at CCCCD. To be considered for admission, the student is required to:

- Meet with the Assistant Director of Academic Advising.
- Complete a Petition for Admission.
- Complete a CCCCD Application for Admission.
- Have an **official** transcript(s) of the most recent college attended on file with CCCCD or have an **official** transcript from the most recent college attended, **in hand**, at the initial meeting.
- Enroll in a study skills class with total enrollment not to exceed 12 credit hours.

The student will be required to meet specific enrollment stipulations as determined in consultation with the Assistant Director of Academic Advising.

### **RIGHT OF APPEAL**

A student placed on Academic Dismissal has the right to appeal to the Academic Progress Appeals Committee. Membership of the Academic Progress Appeals Committee will include the Dean of Students, the Registrar/ Director of Admissions and Records, the Director of Academic Advising, the Assistant Director of Academic Advising and a Faculty member.

The appeal process will allow a student to appeal a dismissal for unsatisfactory academic progress based on (a) the death of a relative, (b) an injury or illness of the student, or (c) other special circumstances.

A student who wishes to appeal must do so in writing to the Director or Assistant Director of Academic Advising within 10 calendar days of written notice of the dismissal.

### **STUDENT CLASSIFICATIONS**

- **Freshman:** A student who has successfully completed fewer than 30 quality hours.
- **Sophomore:** A student who has successfully completed 30 or more quality hours.
- **Full-time:** A student enrolled for 12 credit hours or more in a 16-week semester, six credit hours or more in a five-week summer session, or nine credit hours or more in a 10-week summer session.

- **Part-time:** A student enrolled for 11 credit hours or less in a 16-week semester, five credit hours or less in a five-week summer session, or eight credit hours or less in a 10-week summer session.

Classification varies for courses meeting on alternative or accelerated schedules.

#### STUDENT LOAD

A full-time student load is a minimum of 12 credit hours per 16-week semester. Students taking 11 credit hours or less per 16-week 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 with disabilities should contact the ACCESS office at 972.881.5898 for student classification/load information.

Students may, with special permission of a full-time academic advisor, enroll for more than 18 credit hours during a regular session and seven hours in a summer session. 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 during a summer session. Students are limited to one course (normally three credit hours) during the Wintermester or Maymester sessions.

#### TRACKING OF AT-RISK STUDENTS

The Office of Institutional Research tracks CCCCD students who, based on TASP or college assessment scores, are placed in developmental courses. The college tracks these students to ascertain their success in developmental courses and in subsequent college-level courses.

#### TRANSCRIPTS

Requests for official transcripts must be made by the student to the Admissions and Records Office. A student’s written permission must be on file in the Admissions and Records Office before transcripts are released (except for releasing to the student or another school.) To request a transcript, students may complete a transcript request form available from the Admissions and Records Office, mail or fax a signed request to the Admissions and Records Office, or send an e-mail message to [transcripts@cccdd.edu](mailto:transcripts@cccdd.edu).

#### 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 short summer session, by completing a form in the Admissions and Records Office. Students may also withdraw from the college by mailing or faxing 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 or imprinted on the fax 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. Students who do not attend/participate in TASP required remediation may be administratively withdrawn from all courses with no refund.





## STUDENT DEVELOPMENT

### ACADEMIC & PERSONAL ENHANCEMENT

Credit and non-credit courses and seminars are available for students to enrich their development in study skills, career planning, leadership, and personal development.

### ACADEMIC ADVISING

Academic advising, an integral component of each student's success at CCCCD, is a continual process at the college. Any prospective student interested in talking with an advisor should contact the Academic Advising Department located within the Student Development Center at each campus. New students are advised through the Academic Advising Department *prior* to their first registration at CCCCD.

Students are strongly encouraged to meet with an academic advisor each semester to evaluate their academic progress. Academic advisors and their phone numbers are listed by instructional division on pages 6-7.

Academic advising in the Student Development Center at each campus offers:

- Assistance for undecided and new students in selecting a field of study
- Facts about classes and programs
- Assistance with registration as a CCCCD student and adjustment to college
- Information about academic requirements
- Procedures for dropping a class, appealing grades, registration, etc.
- A place to start when seeking to establish a degree plan
- Transfer information for those planning to attend a college or university (in the Transfer Lab)
- Advising for athletes
- Advising for students on Academic Action Program (SOAAP)

Students



## ACCESS

ACCESS (Accommodations at Collin County for Equal Support Services) is a comprehensive accommodation program for all CCCCD students. Following Americans with Disabilities Act of 1990 guidelines and Section 504 of the Vocational Rehabilitation Act of 1973, reasonable accommodations for students with documented disabilities are provided. Students with disabilities are encouraged to make an appointment with an ACCESS advisor at least one month prior to the beginning of classes. Services include: interpreters, notetakers, scribes, readers, and testing accommodations.

The Special Needs Center, located within the Learning Resources Center at Central Park and Spring Creek campuses, is equipped with low-vision readers, scanners, and a voice synthesized speech program on an IBM-compatible computer. For information on these and related services, contact the ACCESS Office.

Tutoring is also available for all students at the college.

A licensed educational diagnostician conducts psychoeducational evaluations for students requiring testing for learning disabilities. Results are evaluated and recommendations are made.

The ACCESS office is located at SCC/G200. Please contact this office at 972.881.5898 or 972.881.5950 TTY for services on all campuses.

## ASSESSMENT AND TESTING SERVICES

Testing Centers are located on all campuses for basic skills testing, proctoring and national testing. CCCCD is an official testing site for the SAT, ACT, and Texas Academic Skills Program (TASP), and alternative tests for TASP purposes.

### TASP – TEXAS ACADEMIC SKILLS PROGRAM

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 prior to enrollment." TASP is a test in reading, writing and mathematics that is required of all students taking college-level courses at a public college in Texas. The test fee will be paid by the student. All students seeking teacher certification will be required to take TASP. Performance on TASP will not be used as a condition for admission to CCCCD. Students can enroll only in Developmental Education course work without having taken TASP.

You do not have to take TASP if you have completed three hours of college-level credit earned prior to September 1, 1989.

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

- An official transcript from a regionally accredited college, university, foreign university, or military
- An official score report (AP, CLEP, DANTES)

In addition, students may seek exemption from TASP based on a composite ACT score of 23 or higher (with individual math and English scores of no less than 19), as of April 1995 and thereafter; re-centered SAT scores of 1070 (combined with a minimum of 500 on the mathematical and verbal tests each), prior to April 1995; original scale scores of 970 (combined with a minimum of 470 on the mathematical test and 420 on the verbal tests; or TAAS scale scores of 1770 on the writing test and a Texas Learning Index (TLI) of 86 on the mathematics test and 89 on the reading test. ACT and SAT scores can be no more than five years old. TAAS scores can be no more than three years old.

Students may continue to take and accumulate lower division courses past the 60 hour limit, but will be unable to graduate with a degree until they have completed the TASP requirements. An alternative method to meet the TASP requirements is defined as follows: If a student has (1) taken a TASP section and failed; (2) enrolled in and completed appropriate developmental course work; (3) taken the TASP a second time and failed; and (4) then attained a grade of "B or better" in an approved course related to the failing area, the student has met the TASP requirement in the failed area. Until TASP requirements are successfully completed, continuous remediation is mandated.

New students will be required to furnish the college with necessary proof regarding TASP status.

*NOTE: For specific current information about TASP and CCCCD's testing, contact the Director of Testing at 972.881.5739. Please note that, in addition to the state test, the college requires new students to be assessed in reading. All students must be assessed or provide proof of pre-requisites prior to enrolling in an English or mathematics course. All students who wish to enroll in freshman English 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 official TASP scores reports or official transcripts.*

Students may also apply in writing for TASP Waived Status based on the following criteria:

1. The student is 55 years old or older and does not intend to seek a degree or certificate from a Texas public institution of higher education.
2. The student is enrolled on a temporary basis in a Texas public institution of higher education and is also enrolled in a private, independent or out-of-state institution of higher education. The student must present evidence of enrollment in the other institution.
3. If a student is pursuing a certificate in a program with 42 (or less) hours of credit, they may request "TASP Waived" (not required) status by contacting the TASP office, 972.881.5902.

Passing scores for the TASP are:

- Mathematics 230
- Reading 230
- Writing 220

### **BASIC SKILLS ASSESSMENT**

Basic skills assessment is the process each student must complete to identify academic strengths and/or weaknesses. All first-time college students are required to take CCCCD's reading assessment prior to enrollment. Students who wish to enroll in any of the following courses must be assessed:

- English: ENGL 0300, 0305, 0315 and 1301
- English as a Second Language classes
- Mathematics: MATH 0302, 0305, 0310, 1314, 1316, 1324, 1332, 1342 and 2312.

Other assessments may be required based upon faculty and/or advisor recommendations. Some assessments may be waived based on prerequisite proof or TASP scores as described in the following assessment policies.

#### **Computer Science Assessment Policy**

Basic skills assessment in Computer Science is required to substitute COSC 1300 with any other COSC or BCIS course.

#### **Mathematics Assessment Policy**

All students enrolling in mathematics courses are required to participate in assessment or show prerequisite proof (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, 0302, 0305, 0310) by scores on COMPASS. A student is allowed to take the assessment twice before the mathematics entry level is established prior to enrollment that semester. If a student decides not to enroll in a mathematics course during the semester of assessment, the student may retain the assessment score for one year, or may reassess prior to 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 course, the student must continue from the point of entry through MATH 0310 before enrolling in MATH 1314 or MATH 1324.

*Note: MATH 0305 is the prerequisite for MATH 1332.*

Students will not be allowed to retake the math assessment test once they enroll in a developmental math course unless they complete an approved re-evaluation petition, obtain an appropriate re-assessment score, and receive approval from the Dean of Developmental Education.

#### **Reading Assessment Policy**

Students who have passed TASP reading, passed Alternative TASP reading, or are exempt from TASP requirements are not required to take CCCCD's reading assessment. Otherwise, first time college students must take the reading assessment test. Students who assess below college level are required to see an academic advisor, are not eligible for Telephone or Weblines Registration, and are required to register for an appropriate developmental reading course. Enrollment in other courses may be limited. EXCEPTION: Students who take the ESL New Student Assessment.

#### **Writing Assessment Policy**

Students who have passed TASP writing with a score of 240 or higher, passed Alternative TASP writing with a writing sample score of 6 or higher, or are exempt from TASP requirements may enroll in ENGL 1301 without assessment. Otherwise, students will be required to take the CCCCD writing assessment for placement in the appropriate level English course.

#### **English as a Second Language**

New students wanting to enroll in an ESL course must take the ESL New Student Assessment. Interested students must pick up an ESL New Student Information packet from the Information Center at the Spring Creek Campus.

Assessment scores are valid for one year. These scores are used for course placement only and do not affect the admission status of students.

Students interested in taking ESL classes through Continuing Education may call 972.985.3750 for assessment instructions.

#### **OTHER TESTING SERVICES**

The Testing Center also offers an extensive testing program in the following areas:

- Certified Professional Secretaries Examination
  - CLEP – College-Level Examination Program
  - ACT – American College Testing Program
  - ASE – Automotive Service Excellence
  - SAT – Scholastic Aptitude Test
  - Credit By Exam Subject tests designed by CCCCD faculty
  - Correspondence Testing (A fee of \$20 is required for test administration)
  - MCAT – Medical College Admissions Test
  - MECP – Mobile Electronics Certification Program
- CCCCD codes for these tests are shown below:
- CLEP (Spring Creek Campus) 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 at 972.881.5739.

## CAREER SERVICES & COOPERATIVE WORK EXPERIENCE

Career Services & Cooperative Work Experience (CS/CWE) offers a variety of services to enhance the career planning and exploration process. Five major steps have been outlined to assist students in making career decisions and completing the job search process. These services are FREE to students and alumni while many are available to members of the community. There is a nominal charge for community members requesting career assessments with a professional interpretation.

### STEP ONE: SELF-ASSESSMENT

What are your work values and interests, and how do they relate to careers? What school subjects appeal to you? How do you spend your free time? What are your hobbies? What did you enjoy about your previous jobs? What skills do you possess and what careers use these skills? How do all of the above relate to career choices?

Self assessment is the first step in choosing a career path. The following resources are available to help you learn more about your personality, values and interests:

- Career Assessments: Myers-Briggs, COPEs, COPS
- “DISCOVER”, a computerized career guidance program
- Work Keys®, a nationally recognized system to assess and teach workplace skills. These assessments will help you document your skills through standardized testing (paper and pencil).

All of these assessments are available in Career Services and Co-op by appointment. Professional interpretations are available, by appointment, once the assessments are completed.

### STEP TWO: EXPLORE MAJORS AND CAREERS

Resources are available to help you investigate career fields and explore specific jobs as they relate to your self-assessment. Career Services and Co-op maintains a career library which has a variety of books, computerized programs, videos, and manuals:

- Career Library
- “DISCOVER”, a computerized career guidance program
- Career Visions Program (Informational Interview)
- Annual Career Week, including a job fair
- Workshops and seminars
- Internet access
- Campus recruiting by area employers

### STEP THREE: RESEARCH THE JOB MARKET

Job market information, including current trends, salary surveys, and job availability, is provided in the Career Laboratory. Listings containing area employment agencies, human resource departments and job hot line telephone numbers are also available.

### STEP FOUR: PREPARE AND MARKET YOURSELF

To help you prepare for entry into the job market, Career Services and Co-op provide word processing programs, a laser printer, resume critiques, interview coaching, and videotaped mock interviews with critiques. These services are available by appointment.

Also available are printed materials on:

- Cover letters
- Resume writing
- Interviewing
- Following up after the interview

### Technical Career Counselor

A career advisor is available to assist students in the Associate of Applied Science programs, students enrolled in certificate programs, and students identified as Special Populations. Assistance is also provided for students seeking employment after graduation. Contact the Technical Career Counselor for job search assistance and for information regarding the on-line resume service.

Visit our web site by going to [www.ccccd.edu](http://www.ccccd.edu), click on “Current Students”, then click on “Student Services”.

### STEP FIVE: PUT LEARNING TO WORK

#### On-Campus Employment

Campus departments hire student workers to perform a variety of job functions. Students are eligible to work a maximum of 20 hours per week and are paid \$5.41 per hour. Student workers are classified as Student Assistants or Federal Work-Study students. Federal Work-Study students must apply and qualify for financial aid. Students qualifying for Federal Work-Study are also eligible to participate in the America Reads program (tutoring grades K–3 in area elementary schools), which pays \$7.50 per hour.

#### Off-Campus Employment

CS/CWE provides job listings for off-campus positions ranging from entry-level to professional. Both part-time and full-time positions are available. A database of current job openings is available on computer in each CS/CWE office.

Cooperative Education is available for students seeking course credit for career related employment. Specific details are outlined under the Cooperative Work Experience heading.

## **COOPERATIVE WORK EXPERIENCE**

Cooperative Work Experience (Co-op) is an educational program (academic course) designed to provide actual work experience which relates classroom study to career choice. The course elements include hands-on work experience, specific learning objectives, and participation in specialized, professional development seminars to build the skills employers are requesting. The integration of academic concepts with planned, supervised work experience assists students in developing greater self-awareness and validating career direction.

Co-op is designed to serve students in two-year technical fields as well as transfer-oriented students desiring academic co-ops. Most positions are paid, and there are also unpaid opportunities in academic co-op fields which require volunteer work to start, such as radio, television, and criminal justice. Some disciplines now require Co-op in the degree or certificate plan. Students for whom this applies are encouraged to contact Co-op at least one semester prior to expected Co-op enrollment. Co-op has open enrollment every month based upon when a student accepts a position. Students must obtain permission from the Co-op office for these courses, and some require a prerequisite(s) or instructor permission.

To be eligible, students must have completed at least one semester at CCCCD, have declared a major for a degree or certificate, have a minimum of 2.5 GPA, have accumulated up to nine credit hours in their major, be able to work at least 20 hours per week, and be concurrently enrolled in at least one three-hour academic course at CCCCD.

A student who is presently employed may use a current job for the Co-op course if it relates to his/her ultimate career goal. Students who are seeking related work experience may utilize the Co-op job recruitment service to obtain work that can be used to receive college credit. Work hours for a 16-week semester, along with 16 hours of classroom seminars and setting specific goals for the work period, are the key components of this course which allows a student to earn credit hours towards a declared program. Students are encouraged to contact Co-op about regularly scheduled information sessions or other questions they may have. Call 972.881.5735.

## **GUARANTEE FOR JOB COMPETENCY**

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

1. The graduate must have earned the AAS 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 AAS degree at CCCCD 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 also been completed at CCCCD 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, within 90 days of the graduate's initial employment, that the employee is lacking entry-level skills. These skills must be identified by CCCCD as program exit competencies, and areas of deficiency must be specified.
  6. The employer, graduate, division dean, job search assistance 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 completed 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 may be initiated by the employer or graduate, within 90 days of the graduate's initial employment, by submitting a written request to the Vice President of Academic Affairs.
- For more information, please contact the Dean of Students.

## **COUNSELING SERVICES**

### **PERSONAL COUNSELING**

The college's counseling program is designed to support and assist students who have personal issues that impact their college experience. The college is aware of the interaction between personal development, emotional wellness, and success in academic pursuits.

Counseling Services offers accessible assistance in the areas of therapeutic intervention, prevention, and support. Staffed by licensed professionals and supervised interns, Counseling Services provides individual personal counseling, facilitates various support groups, sponsors personal growth seminars and encourages awareness of issues of concern to both traditional and non-traditional students.



Counseling addresses a variety of issues, including:

- Alcohol and other drugs
- Anxiety
- Assertiveness
- Crisis intervention
- Depression
- Eating disorders
- Grief issues
- Relationships
- Stress management
- Trauma recovery

The counseling program is designed to offer crisis intervention, solution-oriented therapy, assessment, and referral services. The counseling staff adheres to the appropriate ethical and legal standards as required by their licensure. Contact with the Counseling Center is confidential. There is no fee charged to students for counseling services. For additional information or assistance with counseling concerns, call SCC, 972.881.5779; CPC, 972.548.6615; or PRC, 972.377.1671.

### **SPECIAL POPULATIONS SUPPORT SERVICES**

Two specialized programs are offered through Counseling Services to provide extra support and guidance to students who meet the definition of Special Populations. This definition includes students who are:

- Single parents, including single pregnant women
- Displaced homemakers
- International students or students with limited English proficiency
- Physically or mentally disabled
- Diagnosed with a learning disability and academically disadvantaged
- Pursuing a major or career that is non-traditional for their gender
- Mature adults returning to college and in transition

The PROMISE Program assists Special Populations students who are coping with major life transitions by providing career guidance, personal counseling, life skills development, and community referrals. The PROMISE Program's comprehensive support services are aimed at helping the transitioning student to re-enter the workforce and to contribute fully to the well-being of their family and community.

For Special Populations students interested in pursuing technical careers and education at CCCCD, the college offers the NETWORKS Program. To qualify, students must be pursuing an AAS degree or related certificate, either through the college's

Engineering Technology Division or the Business and Computer Science Division. Some healthcare programs are also applicable. Through NETWORKS, Special Populations students have access to career exploration opportunities such as company tours, mentoring, job skills workshops, and informational interviewing with area employers. Students may also qualify for limited financial assistance, such as partial textbook and dependent care reimbursement, which is contingent upon financial need and availability of funds.

For additional information about these services, please call 972.377.1671 or 972.881.5126.

## **FINANCIAL AID**

As a service to CCCCD students, the Financial Aid Office administers a financial aid program that includes scholarships, grants, loans, and part-time employment. Financial Aid officers are trained to assist students in realizing their educational goals.

A primary purpose of the college's financial aid program is to provide assistance for students who might otherwise find it difficult or impossible to attend college. All students are encouraged to apply for financial aid. Students who have a bachelor's degree are only eligible to receive loans. Students should not withdraw from college for financial reasons without first consulting with the Financial Aid Office. All financial aid students must become familiar with the standards of academic progress. For more information, call the Financial Aid Office at CPC-972.548.6760, SCC-972.881.5760, or PRC-972.377.1760.

New federal law requires a financial aid student to complete at least 60% of each semester. If the student completely withdraws before the 60% point in the semester, that student will need to repay a portion of the financial aid funds received. Contact the Financial Aid Office for complete information.

### **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 – \$3,700/year).

#### **Federal Supplemental Educational Opportunity Grant (FSEOG)**

The FSEOG provides assistance for eligible students who show financial need and are making satisfactory progress toward their educational goal. Priority is given to students demonstrating the greatest of financial need (range: \$400 – \$2,000/year).

### **Federal Work-Study (FWS)**

Students demonstrating financial need may be considered for the work-study program. Students are employed to work at various jobs on campus or at other district sites. They are allowed to earn the amount designated in their award package (range: \$1,315 – \$3,500/year).

### **Federal Stafford Loan Program**

This program permits a student to borrow money from a commercial lending agency without the need for collateral. The federal government guarantees repayment of the loan and pays interest on the subsidized amount borrowed until six months after the student graduates or ceases to be enrolled at least a half-time. Eligibility is based on financial need. For periods of enrollment beginning on or after October 1, 1992, students can get a Stafford Loan that is not based on need. Variable interest rates are set each fiscal year, but will not exceed 8.25%. The interest rate for the 2000–2001 academic year was 7.59%. Students may borrow \$2,625 for the first year of completion in their program of study. During the second year, the maximum is \$3,500. The maximum amount a student may borrow depends upon eligibility, dependency status, year in school, previous student loans borrowed, and enrollment status for the year.

### **Federal PLUS Loans**

Federal PLUS Loans are for parents who want to borrow money to help defray the cost of their children's education. Like Federal Stafford loans, PLUS Loans are made from a lender such as a bank, credit union, or savings and loan association. Credit rates will vary. Parents may borrow up to the cost of the education, minus resources and aid.

## **FINANCIAL AID PROGRAMS - STATE ASSISTANCE**

### **Texas Public Education Grant (TPEG)**

The TPEG program is a state financial aid program designed to assist students attending state supported colleges. Students must demonstrate financial need and be making satisfactory progress toward their educational goals. The actual amount of the grant varies depending upon the availability of funds to the college, the student's financial condition, and other aid the student is receiving (range: \$200 – \$2,200/year).

### **Texas Public Education – State Student Incentive Grant (SSIG)**

*Also known as LEAP and PSIG*

SSIG, a state program, is based on the financial need of the applicant. Eligibility is determined by the college and is based on the availability of funds as well as need (range \$100 – \$1,000/year).

## **ADDITIONAL FINANCIAL AID INFORMATION**

Many of the financial aid programs listed are under constant federal and state review and are subject to change. Students may apply for financial aid by completing the Free Application for Federal Student Aid (FAFSA). The FAFSA is available in the Financial Aid Office and in most high school counseling offices, or from FAFSA's website at [www.fafsa.ed.gov](http://www.fafsa.ed.gov). Priority deadlines are:

- Fall Semester – June 1
- Spring Semester – November 1
- Summer Terms – March 1

## **INSTITUTIONAL POLICY OF SATISFACTORY ACADEMIC PROGRESS FOR FINANCIAL AID**

Federal law requires that to receive financial aid, students must be making satisfactory progress in their course of study. CCCCD requires the following standards:

### **Incremental Measurement of Progress**

Each semester, the Financial Aid Office evaluates the satisfactory academic progress of CCCCD students that receive financial aid, including grade point averages. The number of hours completed are checked at least once each academic year.

### **Completion Requirements**

1. The maximum number of hours a student may attempt is limited to 90 credit hours. A student will be deemed making progress once demonstrating he/she will graduate within 150% of his/her degree program.
2. Enrollment status (hours attempted) is determined by the student's enrollment on the census date (twelfth (12th) class day during the fall and spring semesters; fourth class day during the summer sessions).
3. Twelve or more hours is considered full-time. Nine to 11 hours is considered three-quarter-time. Six to eight hours is considered half-time.
4. Students enrolled on a full-time status must complete 24 semester credit hours per academic year (an academic year equals two long semesters plus summer sessions).
5. Students enrolled less than full-time must complete a proportionate number of hours (e.g., three-quarter-time = 18 semester credit hours; half-time = 12 semester credit hours).
6. Courses in which students earned a final grade of "A", "B", "C", or "D" are used to compile hours completed. Withdrawals, incomplete courses, repeated courses, and noncredit remedial coursework are counted toward attempted hours.

### **Grade Point Average (GPA) Requirements**

1. A student who has a cumulative GPA of 2.0 or above and meets the Completion Requirements is considered to be making satisfactory academic progress.
2. A student who has attempted less than 30 semester hours with a cumulative grade point average of 1.67 or above is considered eligible for financial aid for one semester.

### **Failure to Meet the Standards of Academic Progress**

1. Any student on academic suspension is not eligible for financial aid.
2. A student who withdraws from CCCCDC while receiving financial aid is not eligible for additional financial aid until an equal number of hours is completed at the student's expense.
3. A student who is denied aid under this policy is again eligible when the student documents that he/she meets the Completion and Grade Point Average Requirements.

### **Appeal Process**

1. Student aid regulations allow a student to appeal an adverse satisfactory academic progress finding based on (a) the death of a relative, (b) an injury or illness of the student, or (c) other special circumstances.
2. A student who wishes to appeal shall do so in writing to the Financial Aid Office within 21 calendar days of notice of the adverse finding.
3. A student whose appeal is denied by the Financial Aid Office may appeal to the Financial Aid Task Force. The student must provide written notice of intent to do so within 14 calendar days of the notice of the denial.
4. Subsequent to the denial by the Financial Aid Task Force, a student may seek an administrative appeal from the Vice President of Student Development.

## **FINANCIAL AID PROGRAMS - SCHOLARSHIPS**

### **CCCCD Foundation Scholarships**

Academic scholarships for CCCCDC students are awarded through the CCCCDC Foundation. Numerous scholarships are available to new and continuing students at CCCCDC, and they are designed to encourage and assist students in pursuing academic excellence at the college. Scholarships are awarded for several reasons, including academic achievement, merit, or financial need. All students are actively encouraged to apply for Foundation scholarship awards. The deadline for applications is March 1, 2002 for the 2002–2003 academic year (September 1, 2002 – August 31, 2003).

Foundation scholarship information is available in the Foundation Office (CPC-B216), the Financial Aid Office (CPC-A111, PRC-F141, SCC-G119), and on the "Scholarship" bulletin boards at each campus. For further scholarship information, call 972.548.6612 or e-mail [vnewsom@cccdd.edu](mailto:vnewsom@cccdd.edu).

### **CCCCD Athletic Scholarships**

Scholarships are also available for men's and women's basketball, men's baseball, men's and women's tennis, women's volleyball, and women's softball.

### **CCCCD Departmental Scholarships**

Music, photography, and theatre scholarship information is located in the Foundation Office, the Financial Aid Office, and on the scholarship bulletin board at the CPC, PRC, and SCC campuses.

## **FINANCIAL AID PROGRAMS - OTHER**

### **Waivers**

State tuition waivers provide qualifying students with exemptions from certain tuition and fee charges in public colleges. Contact either the Financial Aid Office or the Admissions Office for additional information for a specific waiver. A few of the state waivers are:

#### **Financial Aid Waivers**

- Hazlewood Act
- Highest Ranking High School 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
- Aid for Dependent Children
- Early High School Graduation

#### **Admissions Waivers (Admissions and Records Office)**

- Ad-Valorem Tax
- Concurrent Enrollment
- Dual Agreement – Grayson County
- Dual Agreement – Dallas County
- Contract Training for Out-of-District
- Senior Citizen

### **Veterans Educational Benefits**

CCCCDC is approved for training veterans under the Montgomery GI Bill (Public Law 346,550,16 and 89-358).

Initial applicants should submit all documentation to the Financial Aid/Veterans Affairs Office at least six weeks prior to registration, if possible. The steps necessary to do this include:

1. Gain admission to CCCCDC through the Admissions and Records Office.
2. Submit a degree plan request and all required VA forms to the Financial Aid/Veterans Affairs Office.

3. Ensure all transcripts from prior institutions are submitted to the degree plan coordinator for transfer evaluation.

**PLEASE NOTE:** Only after an official degree plan is on file will notification of enrollment be sent to the Veterans Administration. Only classes that are on the official degree plan will be paid for.

Continuing students, who have previously received benefits, must notify the VA Advisor in writing at the time of registration, or as soon thereafter as possible. Notification may be submitted at any CCCCD Financial Aid/Veterans Affairs office. If there has been a break of more than two long semesters, additional VA documents will be required as well as transcripts from any schools attended during the break.

Students receiving Veterans benefits must maintain satisfactory academic progress while attending CCCCD. Satisfactory academic progress is defined as maintaining a 2.0 GPA. Students failing to make satisfactory academic progress will be reported to the Veterans Regional Office as being on academic suspension at the end of the second consecutive semester when the cumulative GPA remains below 2.0. Developmental courses will be included to determine the cumulative GPA.

A grade of "D" or better received at CCCCD or any other college is a passing grade and may not be repeated for benefits.

If a non-punitive grade of "I" is assigned to a course and is not converted to a punitive grade, this will be reported to the VA Regional Office within 30 days and benefits will be reduced accordingly.

Students receiving a grade of "F" may repeat the course with benefits one time. If it is necessary to repeat the course again, the student must first successfully complete the course and then request that the CCCCD Veterans Affairs Office complete the certification.

## 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.

## IMMUNIZATIONS

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

## STUDENT ACTIVITIES

### PROGRAMS

Student Activities strives to enhance student learning and development. It is the goal of Student Activities to provide co-curricular civic, educational, leadership, and social programs. Students can also join student organizations and committees, work on special projects, or enjoy social activities with friends.

Student Activities offers a wide variety of opportunities to enrich students' college experience including: educational conferences; entertainers; field trips; guest speakers; leadership training; officer training; social, cultural, and civic events; and student organizations.

CCCCD has opportunities for campus and community involvement through recognized student organizations. The purpose of these organizations varies from honor societies to political, religious, service, and social groups. Currently enrolled students may form student organizations by following the procedures outlined in the current Student Organizations Policies and Procedures Manual (SOPPM). A copy of the manual may be obtained from Student Activities. New or reforming organizations may not officially meet or hold an event until recognition from Student Activities is complete.

### 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 all college employees are interested in student ideas, opinions, and suggestions.

Through participation in Student Advisory Council, representation on college task forces, events with our president, and personal conversations with faculty and staff, students are encouraged to communicate their needs, desires, and proposals for change.

See Student Activities for detailed information on how to get involved in student activities, student organizations, and institutional governance.

## STUDENT CODE OF CONDUCT

CCCCD 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 *CCCCD Student Handbook* or contact the Dean of Students.

#### 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.

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 ACCESS Office, SCC-G200, 972.881.5898 or 972.881.5950 (V/TTY) for information about CCCC'D's facilities and specialized services.

#### SUPPLEMENTAL INSTRUCTION

Supplemental Instruction (SI) is a program that targets traditionally difficult academic courses. It provides students with regularly scheduled, out-of-class, peer facilitated study sessions. The SI sessions are open to all students in the course section and are attended on a voluntary basis. SI sessions integrate how-to-learn with what-to-learn. Students discover appropriate application of study strategies, note taking, questioning techniques, material review, and test preparation. For additional information about courses with SI sessions or to become an SI Student Leader, contact Michele Boverie, Tutor Coordinator and SI Supervisor, at SCC-G204 or 972.881.5128.

#### TUTORING

Individual and small group tutoring is available at no charge to CCCC'D students on a first-come, first-serve basis. For tutoring services or to apply to be a tutor, contact Michele Boverie, Tutor Coordinator, at SCC-G204, 972.881.5128.



## EDUCATIONAL SERVICES AND OPPORTUNITIES

### ADVANCED ACADEMIC OPPORTUNITIES

#### CENTER FOR ADVANCED STUDY IN MATHEMATICS & NATURAL SCIENCES

CCCCD has established a preferred curriculum for students preparing to enter professions that require an extensive background in mathematics and natural sciences.

Based at Spring Creek Campus, the new center includes honors courses in biology, chemistry, physics, and mathematics for students in pre-professional majors.

Upon successful completion of 18 or more credit hours from the designated courses, students will receive special recognition by the college, and a notation will be included on their official CCCC transcript.

For further information, see page 67 or contact the Mathematics and Natural Sciences Division at 972.881.5880.

#### HONORS INSTITUTE

The Honors Institute at CCCC is designed to provide a challenging learning experience for students with advanced academic skills. In small classes (maximum 18 students) advanced and highly motivated students engage in discussion, research and creative projects geared to their special abilities and commitment to learning. In an honors class 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 for 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 Council at 972.881.5803 or the Academic Advising Center at 972.881.5778.

CCCD  
HONORS  
INSTITUTE

## THE ARTS GALLERY

The mission of THE ARTS gallery is to serve as a center for aesthetic exploration through the creative processes of fine arts faculty and students, professional artists, and arts organizations. By presenting quality, interdisciplinary art exhibitions and events THE ARTS gallery enhances an understanding of the arts within the college and the community and enriches individual lives.

### Hours of Operation

Mondays – Thursdays 9 a.m. – 9 p.m.

Fridays 9 a.m. – 5 p.m.

For further information on the gallery or its current shows, please contact THE ARTS gallery at 972.881.5873 or the Director of Galleries, Vicki Mayhan, at 972.881.5145.

## BOOKSTORE

The bookstore is an auxiliary enterprise of CCCCD. Textbooks are selected by the faculty and ordered through the bookstore. Textbooks are priced at industry standard. New books are priced at a 25% margin. Used books, which are priced at 75% of the new book price, are purchased from various sources. For information on store hours, call CPC-972.548.6682, CYC-972.985.3710, PRC/972.377.1682, or SCC-972.881.5681.

### TEXTBOOK AND 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 calendar 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. No cash refunds given on credit card sales.
3. Students should not write in new books until they are certain they have the correct books. New books that are soiled, damaged, or 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., purchased from CCCCD bookstores will be replaced at no charge during the semester in which they were purchased.

### SOFTWARE RETURNS

Software that is unopened must be returned with original receipt no later than two weeks from date of purchase. Software that is opened is not returnable.

### 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. Up to 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.
3. Books must be current editions.
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, decides whether each textbook will be used again. Unless an instructor tells the bookstore he 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 CCCCD 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

With proper identification, checks may be cashed in the amount of \$10 with or without a purchase. Mastercard, VISA and Discover cards, as well as cash and checks, are accepted as payment. When writing a check or using a credit card, you must also show your current student ID card.

## THE CENTER FOR INTERMEDIA ARTS

The Center for InterMedia Arts (CIMA) is a program designed to help students create powerful artistic statements through the integration of all current digital mediums. This includes incorporating electronic media into traditional artistic practices and exploring the unique possibilities of these new media as art forms. The integration of these new digital media within installation, performance, interactive, and on-line works is encouraged.

Qualified students will use the tools of multimedia to enhance and expand their current portfolios. Working in teams and on individual projects using Macintosh-based hardware/software, they will build a portfolio that demonstrates their ability to integrate graphics, music, video, interactive presentations, and photography. Upon completion of the CIMA certificate, each graduate will have a portfolio showcasing their works that contains both a CD-ROM and web site, in addition to the traditional hard copy.

For further information, please contact the Fine Arts Division at 972.881.5107.

## CHILD DEVELOPMENT LAB SCHOOLS

CCCCD provides Child Development Lab Schools at the Spring Creek and Central Park campuses. Both locations serve as laboratory sites for child development and social sciences academic courses.

Students, faculty, staff, and community members may enroll their children in either lab school as space permits. The children's program is designed to promote physical, social, emotional, and cognitive development in a nurturing and supportive environment. Daily activities are based upon individual children's needs and interests.

For more information or a fee schedule, please call the CPC lab school at 972.548.6852 or the SCC lab school at 972.881.5945.

## CISCO ACADEMY

CCCCD is a Cisco Regional Academy and a Local Academy, which prepares students to pass Cisco certification exams through a training program of intensive, hands-on experience. Cisco classes I–IV prepare an individual to take the Cisco Certified Network Associate (CCNA) certification exam. Cisco classes V–VIII prepare an individual to take the Cisco Certified Network Professional (CCNP) certification exams.

The duration of each class is 70 class hours (CCNA spans 8 weeks; CCNP spans 16 weeks). An attempt is made to fit a variety of schedules, with classes meeting on weekdays, evenings,

and Saturdays. Cisco classes must be taken in succession. Students will not be exempt from any of these classes. While there is no prerequisite for Cisco I, it is helpful to have some basic knowledge of computer or Internet networking. The Fundamentals of Networking class is recommended as a foundation class.

Registration for Cisco classes is the same as for other CCCC credit courses. It is best to register early during Telephone or Webline Registration, as Cisco classes fill up very quickly. For registration dates, please consult the *Schedule of Classes* or visit the CCCC web site. For additional information, please call the Engineering Technology Division at 972.377.1715.

## CONTINUING EDUCATION AND WORKFORCE DEVELOPMENT

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 provides learning opportunities for adults 18 years and older to develop their personal and professional potential and upgrade job-related skills.

The Continuing Education and Workforce Development Division provides services that encompass a broad range of purposes:

- Addressing adults' career needs by assisting them to cope with the explosion of new information and techniques, work toward job advancement, or move into a new career.
- Providing job-specific customized training for use by business and industry with curricula relevant to needs of the local economy.
- Contributing to the growth and development of local business and industry through economic development activities on local, state, and national levels.
- Responding to the non-academic or extra-curricular interests and needs of adults by providing a sufficient number of personal development courses.
- Facilitating the interaction between the college and the community.

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



## CONTINUING EDUCATION COURSES

The Continuing Education and Workforce Development Division publishes a schedule each semester with approximately 600 courses pertaining to business and professional development, personal development, and extra-curricular activities. Conferences, seminars, and workshops on special topics are also offered throughout the year.

## CONTINUING EDUCATION UNITS

The Continuing Education and Workforce Development 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. 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 and Workforce Development Division can be your connection to lifelong learning, please call 972.985.3750.

## SMALL BUSINESS DEVELOPMENT CENTER

The Small Business Development Center (SBDC), a partnership between the U.S. Small Business Administration and CCCCD, promotes the economic health and success of small businesses in Collin County. The SBDC provides free, in-depth small business counseling as well as seminars and workshops on topics relevant to established, new, and potential small business owners. For further information, call 972.985.3770.

## WORKFORCE DEVELOPMENT

The Business Solutions Group responds immediately to the current needs of business and industry by delivering job-specific customized in-house training. This may mean entry-level or a “quick start” training of employees of new and expanding business and industry, re-training of employees for new technological developments, or extension of technical assistance to business and industry in the essential managerial functions of planning, organizing, implementing, and controlling. For further information, call 972.599.3130.

## DEVELOPMENTAL EDUCATION

Developmental Education courses are designed to provide students with the basic skills needed to achieve success in college-level courses and to pass TASP. Courses are offered in math, reading, writing, and English as a Second Language. The instructional formats vary and include self-paced study and lecture. If basic skills assessment scores indicate that a student would be better prepared by

taking a developmental education class prior to enrolling 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 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 course must take developmental classes. All of the developmental disciplines (math, reading, writing, and English as a Second Language) are designed to provide the skills tested on TASP.

In addition to the courses, Developmental Education also offers study skills seminars that teach students basic study and test-taking skills. A schedule of these free seminars is published each semester and copies are available at the Information Center on each campus. Call the Developmental Education Office at 972.881.5720 for additional information.

## EMERGENCY PROCEDURES

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. See the Student Code of Conduct in the current *CCCCD Student Handbook* for detailed information.

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, CCCCD 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 *CCCCD Student Handbook*, or contact the Director of Public Safety (972.881.5142), Dean of Students, Director of Counseling, or the Director of Human Resources.

## 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.

## REPORTING EMERGENCIES

If an emergency should arise on campus, report it to the campus Provost's Office or to the building liaison at the Courtyard Center. Contact faculty within the classroom if a problem should arise during a class. Emergency medical services will be notified for students when necessary.

If an emergency arises at an off-campus location, immediately notify a faculty member or contact emergency medical services as necessary.

## EMERGING SCHOLARS

Future leadership in math, science, and the humanities is the heart of the Emerging Scholars program at CCCCD. Each year, professors identify students who excel and show outstanding scholarship potential in the fields of mathematics, natural science, and English/foreign languages for recognition as Emerging Scholars.

The achievements of students who are acknowledged as Emerging Scholars serve as benchmarks for success among their peers, elevating them to leadership status. Thus, Emerging Scholars assume service roles, assisting their peers as tutors in math, science, writing, and language labs.

CCCCD Emerging Scholars have gone on to become solid examples of academic excellence. Over the past few years, 18 Emerging Scholars have received Redman Scholarships, the most prestigious scholarship available at the University of Texas at Dallas. In addition, several have advanced to medical school.

## ENGAGED SCHOLARS IN THE HEALTH AND SOCIAL SCIENCES

The Engaged Scholars program in the Health and Social Sciences encourages students to be aware of their civic responsibilities by recognizing those who have demonstrated leadership and scholarship, as well as community service.

Professors nominate students who have taken six credit hours of courses in the health and social sciences, earned at least a "B", and demonstrated leadership through service to the community. For example, they:

- Serve as mentors in public schools throughout Collin County,
- Engage in the political process by participating in local political campaigns in Collin County, and
- Assist in the development of Aging Collin Well, a service that compiles area elder care resources into an information network.

Students selected for this honor receive certificates recognizing them as Engaged Scholars. Such distinction benefits students as they prepare to transfer to four-year institutions.

## EXPERIENTIAL LEARNING LABS

A variety of learning laboratories are in use at CCCCD to facilitate experiential learning by students, including the American Sign Language Laboratory, the Behavioral Science Laboratory, the Computer Writing Classroom, the Math Lab, the Student Media Workshop, and the Writing Center.

## AMERICAN SIGN LANGUAGE LABORATORY

The ASL laboratory is designed to simulate, as close as possible, a Deaf Culture environment on a college campus. The lab employs approximately 10 native, or near-native, ASL language models who work with students to develop culturally appropriate behavior and continuous language exposure and development. The ASL laboratory is located in room D238 in the LRC at the Spring Creek Campus. Hours of operation are posted outside the lab each semester.

## BEHAVIORAL SCIENCES LABORATORY

Behavioral Science laboratories are located at the Spring Creek and Central Park campuses. They are designed to provide students with the opportunity to replicate and/or conduct research projects in psychology. 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.

## COMPUTER WRITING CLASSROOM

Several sections of English 1301 and 1302 are taught in the computer classrooms located on the second floor of the Spring Creek Campus LRC, the second floor of the Central Park Campus and the second floor of the Preston Ridge Campus. Students in these classes have access to a word processor, the Internet, and an HTML editor.

## MATH LAB

The Math Labs assist CCCCD students enrolled in developmental math, college-level math, and natural sciences courses that have math-based assignments. The staff includes faculty, instructional associates, and student tutors. Students may use videos, graphing calculators, and computers to complete homework assignments. Study sessions are scheduled for the lab components of college algebra, trigonometry, business pre-calculus, and business calculus. Hours for drop-in assistance vary and are posted at each campus.

## 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 audio-dubbing capabilities enable students to produce professional-looking videos.

## WRITING CENTERS

The CCCCD Writing Centers provide a place where students can seek advice on compositions assigned in classes across the curriculum. Each center's primary purpose is to help students become better writers by guiding them through the various stages of the writing process.

Writing Centers are located in the LRC at all CCCCD campuses. An appointment schedule is conveniently posted near the door of each center, and walk-ins are welcome at posted times. For further information, call the Writing Center (CPC-972.548.6857, PRC-972.377.1576, SCC-972.881.5843) or visit the Writing Center homepage at <http://iws.ccccd.edu/wc/writingcenter.html>.

## FITNESS CENTERS

A major emphasis of the Physical Education and Athletics department at CCCCD is to encourage lifetime fitness. Students may use the Fitness Center at Central Park Campus, Preston Ridge Campus, or Spring Creek Campus during the times posted.

The CPC Fitness Center consists of locker room facilities, a weight training room, a dance studio, and three racquetball courts.

The PRC Fitness Center consists of a gymnasium, dance studio, weight training room, natatorium, indoor archery/golf range, and locker room facilities.

The SCC Fitness Center consists of the main gymnasium with rubber running track, weight training room, dance studio, four racquetball courts, locker room facilities, nine lighted tennis courts, and use of the Oak Point Recreation Center natatorium (Mondays–Fridays, 8 a.m.– 4 p.m.).

Before beginning a new exercise regimen, faculty and staff are encouraged to take a fitness assessment in the Wellness Center. Students are encouraged to attend all wellness activities. Contact the wellness coordinator for information about the program.

Collin County residents who are not enrolled in classes at the college will have the opportunity to take advantage of these facilities by paying a membership fee. For further information and hours of operation, contact the Fitness Center at CPC-E121, 972.548.6891; SCC-A103, 972.881.5848; or PRC-A110, 972.377.1752.

## INTERCOLLEGIATE ATHLETICS

The college offers intercollegiate athletic programs in men's basketball, baseball, and tennis, and in women's basketball, volleyball, tennis, and softball. These teams are affiliated with the National Junior College Athletic Association (NJCAA) and participate in regional events which may lead to national

competition. The college also sponsors a men's and women's cycling program. To participate in intercollegiate athletic programs at CCCCD, students should contact the Athletic Director at 972.881.5888 for more information.

## INTERNATIONAL STUDIES PROGRAM

The college offers international studies programs in a variety of fields to help prepare students for the increasingly internationalized world. For information call 972.881.5810. International programs (some offered in alternate years) include the following:

### COLIMA-TO-PLANO EXCHANGE

Volunteer families in Collin County host Mexican students from the University of Colima during the Colima students' six-week study of American language and culture at CCCCD.

### DEAF STUDIES IN PARIS

A first-hand investigation of the relationship between the Deaf cultures of America and France. This course may be taken as a field trip in Deaf Culture (SLNG 1347) or independently through Continuing Education.

### MARINE BIOLOGY INTERNATIONAL FIELD TRIP

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 a selected marine habitat. Students earn four credits for enrolling in Marine Biology (BIOL 1470) and for participating in its field trip that emphasizes reef ecology and the biology of reef organisms.

### INTERNATIONAL STUDIES IN ART

Participants in this program study thousands of years of art unavailable to them within the borders of the United States. Program locations will vary from year to year and may include Italy, Greece, Turkey, Mexico, England, and Ireland. Courses being offered (such as art appreciation, ceramics, and watercolor) will vary according to the location.

### MARBURG SCHOLARSHIP PROGRAM

Each year, one or two CCCCD students are admitted to a selective German language and culture program at Phillips University in Marburg, Germany. Interested students should contact the Division of Humanities and International Studies or the Coordinator of Foreign Languages.

### **MAYMESTER IN PRAGUE**

Students in this program study an interdisciplinary combination of Czech literature and civilization in one of Eastern Europe's great cities. The location and course offerings in this Maymester program may vary from year to year.

### **MONTH-IN-PARIS PROGRAM**

This program offers a combination of study and travel in France for students interested in the French language and civilization. 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.

### **PHOTOGRAPHY IN MEXICO**

This Portfolio field trip takes students to some of the most beautiful cities in Mexico and provides participants with the opportunity to photograph exotic landscapes, architecture, and archeological sites.

### **SEMESTER IN MEXICO**

Students admitted to this fall semester program earn 15 hours of college credit while studying Mexican civilization and Spanish living with a Mexican host family in tropical Colima, Mexico. Prerequisite: one year of college Spanish or the equivalent.

### **STUDENT EXCHANGE IN QUEBEC, CANADA**

Students pay CCCCD's low tuition and study from one semester to one year at Laval University, one of the oldest and most respected universities in French Canada.

### **UNIVERSITY OF COLIMA STUDENT EXCHANGE**

Students pay CCCCD's low tuition while studying from one semester to one year at the University of Colima, Mexico, one of Mexico's "centers of excellence" for university studies.

### **WESTERN CIVILIZATION THROUGH THE ARTS**

#### **LONDON, ENGLAND FIELD TRIP**

Study the art and history of England from ancient to modern times in "Western Civilization through the Arts," a learning community visiting London, Stonehenge, Salisbury, Bath, Oxford, and Canterbury.

## **LEARNING COMMUNITIES**

Learning Communities, in collaboration with Service-Learning, received national recognition when these programs were jointly awarded the 2001 Bellwether Award.

Recognized by the Fund for the Improvement of Post-Secondary Education (FIPSE) and the Pew Charitable Trust, CCCCD's Learning Communities program emphasizes education in a synergistic environment, where learning is reciprocal. The program forms a single course by blending two or more disciplines with a common theme. Students are then taught by the professors representing the areas of study and meet in a block of time twice a week, participating in class discussions and group projects. The time spent together and completion of group projects form a community-like atmosphere among students.

This sense of community is the impetus that leads students to civic action, applying concepts in the world around them by completing projects that benefit the community.

## **LEARNING RESOURCES CENTERS (LRC)**

The Learning Resources Centers are located on the Central Park, Preston Ridge, and Spring Creek campuses. Each LRC consists of a library and a Media Technology Services Center. The LRCs provide access to books, periodicals, videos, computers, electronic databases, the World Wide Web, and a knowledgeable staff to assist students and community residents.

## **ALTERNATIVE LEARNING CENTERS**

The Alternative Learning Centers provide alternatives to traditional classroom learning and instruction through the innovative use of technology. The ALCs house computer laboratories and classrooms, as well as specialized learning labs such as the Science Place.

The ALC can assist any discipline in utilizing technology to augment traditional classroom instruction. Currently, English, foreign language, and humanities classes are taught using the computer labs. The Science Place provides students with models for the study of anatomy and physiology.



## DISTANCE LEARNING

In an effort to accommodate the wide array of student schedules and learning styles, CCCCD provides several types of distance learning credit courses. These courses are offered through instructional cable television (QCTV), two-way interactive video between three campuses, Internet courses, and video checkout courses from the LRC. (NOTE: QCTV is an affiliate of the Annenburg/CPB Channel ([www.learner.org](http://www.learner.org)), which provides support for secondary education faculty.)

Telecourses — credit courses offered through instructional television and video — may be viewed on AT&T Cable Services, Channel A39 (Plano/Richardson only), Channel 71 (Frisco only), Channel 17 (The Colony only), or KDTN TV-2. As of this catalog printing, telecourse viewing is not currently available in McKinney or Allen. However, some course videotapes are available for limited viewing in the LRC. Enrolled students may purchase authorized copies of current telecourses from the SCC bookstore. Students are required to attend a mandatory on-campus orientation session for each telecourse.

Distance learning courses may apply toward associate degree requirements. Many fit into certificate program requirements and the majority fulfill requirements for BA and BS degrees. Students are encouraged to visit with an academic advisor to verify that a specific distance learning course will transfer into their designated college or university's bachelor's degree program.

Registration for a distance learning course is the same as for any other course, but students are required to attend a mandatory orientation session for most distance learning courses. Consult the current *Schedule of Classes* for available distance learning courses.

## LIBRARIES

The libraries offer reference, interlibrary loan, library instruction, and circulation services to students, faculty, and community members. Books, periodicals, books on audiotape, videos, CDs, and other materials are available for study and recreation. The libraries also provide a variety of CD-ROM computer databases, as well as World Wide Web access. Library orientations may be scheduled for classes in order to familiarize students with the services and materials available to them.

## MEDIA TECHNOLOGY SERVICES

Media Technology Services provides audio/visual equipment and software to classrooms throughout the district. This office also supports distance learning courses and the Digital Media Workshop. For further information, visit its website at [www.ccccd.edu/mediaservices](http://www.ccccd.edu/mediaservices).

## DIGITAL MEDIA WORKSHOP

The Digital Media Workshop, located at Spring Creek Campus, is a video editing facility that students can use for course-assigned projects. A Microsoft NT workstation, for use with digital and analog videotapes, allows students to produce professional-looking videos. Students can add computer-generated special effects as well as titles and credits. Analog VHS camcorders are available for student check-out. For further information, visit its website at [www.ccccd.edu/mediaservices/digitalmedia](http://www.ccccd.edu/mediaservices/digitalmedia).

## SERVICE-LEARNING

Service-Learning, in collaboration with Learning Communities, received national recognition when these programs were jointly awarded the 2001 Bellwether Award.

Service-Learning combines course goals with community needs and can be accurately defined as “academically-based volunteer work”. A student’s service-learning experience strengthens academic, social, and practical skills, enhances civic education, and fosters a richer, deeper sense of connection to the community. Service-Learning:

- is based on a reciprocal relationship in which the service reinforces and strengthens the learning, and the learning reinforces and strengthens the service.
- is integrated into the student’s academic curriculum.
- provides students with opportunities to use newly acquired skills and knowledge in real-life situations.
- can be listed as “experience” on resume and college transfer applications.
- helps students to clarify or to discover their career path.

Service-Learning enhances what is taught in the classroom by extending student learning beyond the classroom; however, it is not giving credit for service, it is giving credit for learning.

## SPECIAL SERVICE PROGRAMS

### 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.

The Public Safety Training Complex is a 10-lane, indoor, computer controlled, and environmentally safe firearms training facility. The facility features an audiovisual classroom, weapons cleaning area, and armorer's repair room. The range master control room is equipped with closed-circuit television for monitoring range activities and a master control station for the moving target system. The range also features an environmentally safe rubber composite bullet trap. The range environment is equipped with a high quality air handling system that provides clean, climate controlled, filtered air for year round firearms training.

### **GLOBAL EDGE TECH PREP CONSORTIUM**

The Global EDGE Tech Prep Consortium is a partnership of local high schools, businesses, and the college that work together to provide educational and career preparation for high school and college students. Nationally recognized, tech prep is an instructional program that begins in high school and provides flexible pathways to college education and rewarding careers.

Tech prep courses teach high-level skills required by employers in a variety of career areas, making it possible for students to begin working in high-paying, high-demand careers, while they are still in high school or college.

In high school, courses designated as tech prep are designed to be equivalent to specific college-level courses. By taking these courses in high school, students are also earning tuition-free college credits. Current CCCCDC tech prep workforce education programs include: child development, computer-aided drafting and design, computer networking technology, criminal justice, electronic technology, hotel/restaurant management, office systems technology, and telecommunications technology.

For more information, call Dr. Janet Jaworski, Executive Director or Roberta Jackson, Assistant Director at 972.548.6723. You may also visit the Global EDGE office in CPC-A114 or its website at: <http://ftp.ccccd.edu/globaledge/index.htm>.

### **FIRE PROTECTION TRAINING**

Collin County Community College recognizes the demand for specialized training for fire and rescue personnel. Fire suppression and rescue courses are designed for paid and volunteer firefighters. Experienced instructors from area fire departments are certified by the Texas Commission on Fire Protection. Classes are offered at a reasonable cost with convenient registration.

"Safety Smart" training provides industrial employees with a strong foundation in fire, hazardous materials, and confined-space hazard protection. Through specialized courses, students learn the latest techniques in handling emergencies, as well as protecting people, property, and the environment from harm.

For more information please contact the Fire Science Office at 972.548.6836.

### **TEACHER CERTIFICATION PROGRAM**

Collin County Community College's Teacher Certification Program (TCP) is approved by the State Board for Educator Certification. The TCP offers a flexible training schedule for certification in various secondary content areas including Technology Education.

To qualify for the TCP, applicants must hold a bachelor's degree in the content area they are seeking certification. Upon successful completion of this program and state mandated exams, individuals will be certified to teach in Texas public schools. Acceptance to the program is required to enroll.

For more information about teacher certification, please call the Center for Teaching, Learning, and Professional Development at 214.495.3702 or log on to our web site at [www.ccccd.edu/teachered](http://www.ccccd.edu/teachered).





## TRANSFER PROGRAMS AND RESOURCES

### GETTING STARTED AT CCCC

Collin County Community College adheres to various policies that are designed to make transfer easy, such as a state-honored core curriculum, a statewide Guarantee for Transfer program, and participation in the Texas Common Course Numbering System.

### CORE CURRICULUM<sup>1</sup>

The Texas Education Code, as a result of Senate Bill 148, now requires all public colleges and universities to have a core curriculum of not less than 42 credit hours. Collin County Community College has a core curriculum of 45 credit hours.

CCCCD defines “core curriculum” as those courses which all students are required to successfully complete before receiving an Associate of Arts or Associate of Science degree (along with additional requirements) at CCCC and/or a bachelor’s degree at a college or university. Students should visit with an academic advisor to ensure that they take the correct courses in their field of study.

Students who plan to pursue a bachelor’s degree are encouraged to complete their entire core curriculum at CCCC before transferring to a senior institution. By doing so, students can transfer their core classes as an entire block, which the receiving institution must accept in its entirety. Additionally, the receiving institution must substitute CCCC’s core curriculum for its own core requirements. Beyond the 45 credit hour minimum for core courses, students may take additional courses at CCCC that may meet degree requirements at a senior institution.

Students must complete a minimum of 60 credit hours with a cumulative (overall) grade point average of 2.0 or better and must complete all sections of TASP in order to graduate with an associate degree in the state of Texas.

transfer



**Field of Study**

Mandated in Senate Bill 148, the fields of study curricula are intended to facilitate the transferability of lower-division courses among Texas public colleges and universities. State public higher education institutions must accept Texas Higher Education Coordinating Board approved field of study courses in fulfillment of lower-division requirements for the baccalaureate degree, and receiving institutions may not require incoming transfer students to repeat courses with the same content as field of study courses.

CCCCD's common core curriculum of 45 credit hours is as follows:

<b>Communications</b>	<b>9 credit hours</b>
English	6 Credit Hours
ENGL 1301 and 1302	
Speech – <i>Select one course:</i>	3 Credit Hours
SPCH 1311 or 1315	
<b>Humanities</b>	<b>3 credit hours</b>
<i>Select one course:</i>	
ANTH 2351	
ENGL 2322, 2323, 2327, 2328, 2332, 2333, 2342, or 2343	
HUMA 1301	
PHIL 1301, 1304, 2303, 2306, or 2307	
FREN 2303 or 2304	
GERM 2303 or 2304	
SPAN 2321 or 2322	
<b>Mathematics</b>	<b>3 credit hours</b>
<i>Select one course:</i>	
MATH 1314*, 1316*, 1324, 1325, or 1342*	
(or higher-level course as determined by your area of emphasis)	
<b>Natural Sciences</b>	<b>8 credit hours</b>
<i>Select two courses (course sequence recommended):</i>	
BIOL 1406*, 1407*, 1408, 1409, or 1411*	
CHEM 1405, 1407, 1411*, or 1412*	
ENVR 1401*	
GEOL 1401, 1403*, or 1404	
PHYS 1401*, 1402*, 1411, 2425*, or 2426*	
<b>Social/Behavioral Sciences</b>	<b>3 credit hours</b>
<i>Select one course:</i>	
PSYC 2301 or SOCI 1301	
<b>Social Sciences</b>	<b>12 credit hours</b>
<i>Legislative Mandate – Students must take BOTH of the following courses:</i>	
GOVT 2301 (Texas) and GOVT 2302 (U.S.)	
<i>Legislative Mandate – Students must take TWO of the following courses:</i>	
HIST 1301, 1302, or 2301	

**Visual/Performing Arts****3 credit hours***Select one course:*

ARTS 1301, 1303, or 1304

DRAM 1310

MUSI 1306 or 2308

**Institutional Options****4 credit hours***Students must select one course in each of the following areas:*

COSC 1300 (or higher-level course as determined by your field of study)

Any PHED Activity Course (1 credit hour)

**AA/AS Core Curriculum****45 credit hours****AA/AS Requirement\*\*****3 credit hours****Electives/Areas of Emphasis<sup>2</sup>****12 credit hours min.****Total****60 credit hours minimum**

## NOTES:

<sup>1</sup> Some courses in the core curriculum may require prerequisites. Please check course descriptions in the back of this catalog.

<sup>2</sup> In order to complete an area of emphasis, students must complete 12 credit hours of recommended electives.

To complete an Associate of Arts degree:

- \*\*1. One sophomore Literature course (3 credit hours) is required for graduation.
- 2. Students may select any of the Mathematics and Natural Sciences courses listed above.

To complete an Associate of Science degree:

- \*\*1. One additional Mathematics course (3 credit hours) is required for graduation. Students must choose a Mathematics course marked with an asterisk (\*).
- 2. Students must select from Mathematics and Natural Sciences courses marked with an asterisk (\*).

**GUARANTEE FOR TRANSFER**

CCCCD guarantees to its students, who have met the requirements prescribed in transfer guides/degree plans, that courses will transfer to the Texas college and/or university that participates in the Guarantee for Transfer Credit program. This guarantee is designed for CCCC students who have made firm decisions about their major and the institution to which they plan the transfer.

If these courses are rejected, a student may take tuition-free alternate courses at CCCC that are deemed acceptable by the college or university to which he/she wishes to transfer. Special conditions that apply to the guarantee program are available on request.

Students should contact the Director of Transfer Programs for further information.

NOTE: The second digit in a course number indicates the credit hours for that course.

### **COURSE-BY-COURSE EQUIVALENCY**

Equivalency guides offer a listing of how every course offered at CCCCD transfers to a specific college or university. This information is helpful for those students who have selected a transfer college or university but have yet to determine a major. Students should note that although the transfer equivalencies shown on these guides offer information on how, or even if, courses are generally accepted by the college or university, they do not indicate how these courses will apply toward a particular major or degree program. An academic advisor can assist you in determining the applicability of CCCCD courses to your major.

### **COMMON COURSE NUMBERING**

To help meet the transfer needs of its students, CCCCD is a member of the Texas Common Course Numbering System Consortium. All Texas community/junior colleges and many Texas universities are also using this numbering system.

The Texas Common Course Numbering System provides a shared, uniform set of course designations for students and their advisors to use in determining both course equivalency and degree applicability of transfer credit on a statewide basis.

Students should not assume that only courses with common course numbers will transfer and should see a CCCCD academic advisor for assistance.

### **UNIVERSITY OF NORTH TEXAS AND UNIVERSITY OF TEXAS AT DALLAS**

#### **CONCURRENT ADMISSIONS AGREEMENTS**

The Concurrent Admission Agreements allow qualified CCCCD students the opportunity to complete freshman and sophomore requirements for either the University of North Texas or the University of Texas at Dallas while enrolled at CCCCD.

Concurrent admissions will lower costs, making college more affordable and accessible. Students will complete the first two years of their bachelor's degrees and pay CCCCD's tuition rates.

CCCCD students participating in the concurrent admissions programs will be rewarded for pursuing an academically rigorous program of study. They will be eligible for prestigious university scholarships and will receive recognition for completing honors courses at CCCCD.

These agreements extend select UNT and UTD student privileges, such as access to the libraries as well as cultural and athletic events, to CCCCD students.

For more information about concurrent admissions, please call 972.881.5710.

### **DUAL OPPORTUNITIES AGREEMENTS**

#### **Collin County Community College District**

#### **Dallas County Community College District (DCCCD):**

Collin County residents may enroll in select Workforce Education (WECM) programs offered by the DCCCD at in-county tuition rates. Likewise, Dallas County residents may enroll in select Workforce Education programs offered by CCCCD. For more information contact the Registrar's Office at SCC-972.881.5710, PRC-972.377.1744, or CPC-972.548.6710.

## **TRANSFER PROGRAMS**

The Collin County Community College Transfer Programs Office's ultimate goal is to produce an educated and productive student, knowledgeable in his/her chosen field of study without having a duplication of courses.

CCCCD and selected colleges and universities establish transfer articulation agreements to provide students with access to and linkages with baccalaureate degree-granting institutions. These agreements allow courses to transfer from one institution to another without misrepresentation and loss of credit.

### **TRANSFER RESOURCES AT CCCCD**

Transfer services and resources are available to CCCCD students to help ensure easy transfer of course credits from CCCCD to the college or university of their choice. Some of the resources include individual assistance from academic advisors, programs such as "Next Step", Transfer Express, and the Transfer Labs.

#### **Academic Advisors**

Students planning to transfer Collin County Community College coursework to another college or university should contact an academic advisor early in their collegiate experience. Students planning to earn an associate degree are also encouraged to contact an academic advisor. CCCCD academic advisors are located at each campus in the Student Development Center.

#### **Next Step Program**

Next Step is a program created and implemented by the CCCCD Transfer Programs Office to assist a student's transfer from CCCCD to a college or university by providing the following:

- List of course equivalencies for CCCCD and colleges and universities
- Information on transfer of credit
- Directory listing addresses, phone numbers, entrance requirements, and deadlines for colleges and universities
- Course and program transfer guides

NOTE: The second digit in a course number indicates the credit hours for that course.

- Library of catalogs for both out-of-state and Texas colleges and universities
- Degree plans for colleges and universities.

*NOTE: 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 specific degree requirements.*

### Transfer Express Program

During the spring semester, Collin County Community College sponsors Transfer Express, a free program designed for CCCCD students who plan to transfer courses to other colleges and universities.

Transfer Express enables students to compare various schools without traveling to their campuses. Representatives from several colleges and universities, such as University of Texas at Dallas, University of North Texas, Texas Woman's University, University of Texas at Austin and Texas A&M University at College Station, among others, offer students valuable information, including transferability of courses, academic programs, student activities, housing, and financial aid.

All students interested in transfer information are encouraged to attend the Transfer Express. For more information, please contact the Recruitment and Retention Office at 972.377.1750.

### Transfer Labs

Transfer Labs are located at CPC, PRC, SCC, College Center at Rockwall, and CCCCD@ALLEN. Transfer Labs provide students with various resources that can help them make their education plans at CCCCD so that they will be prepared to transfer easily to the college or university of their choice. Resources include:

- Individual Assistance
- Library of Texas and out-of-state college and university catalogs
- College and university resource materials, including general and specific transfer information, applications, and degree plans
- "College Search" computer
- Reference Books
  - *College Handbook*
  - *Index of Majors*
  - *College Cost Books*
  - *Profiles of American Colleges*
  - *A Guide to Higher Education in North Texas*
  - *Academic Year Abroad*
- Next Step Program and Information
  - "How to Successfully Transfer" brochure

- "Selected Basic Transfer Courses" handout
- "Transfer Questions to Ask" handout
- Course Equivalency Notebook
- Degree plans and transfer guides with CCCCD equivalencies for colleges and universities
- Transfer scholarship information
- Directory listing addresses, phone numbers, application deadlines, and transfer admission requirements for the most-requested transfer colleges and universities

### Resolution of Transfer Disputes

CCCD works closely with other institutions to make the transfer process as smooth as possible and follows guidelines to resolve transfer disputes.

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 in 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 is denied.
2. The two institutions and the student shall attempt to resolve the transfer of the course credit in accordance with board rule 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 CCCCD from the Director of Transfer Programs at 972.758.3861.

**TRANSFER GUIDES AND ARTICULATION AGREEMENTS WITH COLLEGES & UNIVERSITIES**

CCCCD has transfer guides and articulation agreements with the following colleges and universities. For details, please visit the Transfer Lab (located in the Student Development Center on each campus) to meet with an academic advisor.

- Baylor University
- Dallas Baptist University
- Hardin-Simmons University
- LeTourneau University
- Midwestern State University
- Sam Houston State University
- Southeastern Oklahoma State University
- Southern Methodist University
- Southwest Texas State University
- Stephen F. Austin State University
- Tarleton State University
- Texas A&M University - College Station
- Texas A&M University - Commerce
- Texas A&M University - Kingsville
- Texas Christian University
- Texas Tech University
- Texas Woman's University
- University of Arkansas - Fayetteville
- University of California - Northridge
- University of Houston
- University of North Texas
- University of Oklahoma
- University of Texas - Arlington
- University of Texas - Austin
- University of Texas - Dallas
- University of Texas Southwestern Medical Center of Dallas
- West Texas A&M University

Although the information on these guides has been reviewed by officials at the various senior institutions, the content is subject to change; therefore, it is the responsibility of the student to verify with the college or university of their choice the applicability of this information.

**DISCIPLINE COORDINATORS**

Coordinators for disciplines not listed in the Associate of Arts and Associate of Science areas of emphasis are listed below.

**TRANSFERABLE AREAS**

**Chinese, Italian, Japanese, Russian**

Kemal Moula . . . . .SCC-G217 . . . . .972.881.5678

**Dance**

Tiffanee Arnold . . . . .SCC-B118 . . . . .972.881.5830

**Humanities**

Peggy Brown . . . . .SCC-F105 . . . . .972.881.5808

**NON-TRANSFERABLE AREAS**

**Developmental Mathematics**

Arlene Bakner . . . . .SCC-J237 . . . . .972.881.5924

**Developmental Reading**

Shirley McBride . . . . .SCC-J218 . . . . .972.881.5675

**Developmental Writing**

Marti Miles-Rosenfield . . . . .SCC-A213 . . . . .972.881.5124

**English as a Second Language (ESL)**

Shirley Terrell . . . . .SCC-K216 . . . . .972.881.5676

**Reading**

Cindy Reynolds . . . . .SCC-D114 . . . . .972.881.5956

**DEGREE OPTIONS FOR TRANSFER STUDENTS**

CCCCD offers a variety of plans designed to prepare students for a college or university degree. Some options include pursuing an associate degree, participating in a pre-professional program, or enrolling in CCCC's elementary/secondary education center.

**CHOOSING A CATALOG YEAR**

Students who plan to transfer to a college or university have a choice to make regarding their requirements for graduation. Specifically, they may choose the catalog year under which they wish to graduate. This choice is subject to restrictions that are outlined in the college or university catalog. Students should consult their CCCC academic advisor or the catalog of their choice to learn about any limitations.

Students who plan to transfer should keep a copy of the *CCCCD Catalog* from the year they choose, the college's or university's catalog, and the transfer guide that was valid at the time they enrolled in CCCC and selected a major. Course syllabi should also be kept.

**ASSOCIATE OF ARTS AND ASSOCIATE OF SCIENCE DEGREES**

The Associate of Arts and Associate of Science degrees are designed for students planning to transfer course credits to a baccalaureate degree program at a college or university. The curriculum suggested in this catalog will satisfy the requirements of most colleges and universities. Students must consult the catalog of the college or university to which they plan to transfer. Students, working with an academic advisor, should use these catalogs in planning their academic program. The selection of

NOTE: The second digit in a course number indicates the credit hours for that course.



science, math, and elective credit courses is often based on the requirements of the specific college or university.

Current college/universities catalogs, transfer guides/guaranteed programs, and all transfer information is available in the CCCCD Transfer Lab located at each campus in the Student Development Center.

The Associate of Arts and Associate of Science degrees are awarded to students who meet the following requirements along with graduation requirements listed on pages 19-20.

1. Earn a minimum of 60 credit hours (excluding developmental credit).
2. Complete the Core Curriculum of 45 credit hours.
3. Complete a minimum of 12 credit hours of recommended electives/areas of emphasis beginning on this page.
4. Complete the additional 3-credit hour course required for the Associate of Arts or Associate of Science degree.
5. Earn a minimum of 18 credit hours in residency at CCCCD.
6. Earn a minimum cumulative GPA of 2.0.

## AREAS OF EMPHASIS FOR THE ASSOCIATE OF ARTS DEGREE

### ACCOUNTING

See Business on page 51.

### AMERICAN SIGN LANGUAGE (DEAF EDUCATION)

60 credit hours

#### Program Coordinator:

Helene Cohen-Gilbert . . . . .SCC-B135 . . . . .972.881.5152  
(TTY) 972.881.5138

#### Academic Advisor:

Todd Fields . . . . .SCC-G1053 . . . . .972.881.5903

The Associate of Arts degree provides general academic courses and electives that enable students who intend to major in Deaf Education or Deaf Studies to transfer to a college or university. To ensure compliance with the various transfer requirements of different colleges and universities, and to ensure enrollment in appropriate courses, students should consult with a CCCCD advisor and with the college or university that they plan to attend.

The American Sign Language emphasis is designed to provide students with essential, foundational ASL skills, familiarity with Deaf Culture, and an introduction to the discipline of education.

#### Career Opportunities

Students selecting ASL as their emphasis at CCCCD may transfer into a college or university program. There is a dire shortage of teachers nationwide, and entry-level positions are available.

### AA Core Curriculum

45 credit hours

See pages 44-45.

### Recommended Electives

12 credit hours

ANTH 2351	Cultural Anthropology . . . . .	3
SGNL 1401	American Sign Language (ASL): Beginning I . .	4
SGNL 1402	American Sign Language (ASL): Beginning II . .	4
SGNL 2401	American Sign Language (ASL): Intermediate I .	4
SGNL 2402	American Sign Language (ASL): Intermediate II	4
SLNG 1447	Deaf Culture* . . . . .	4
SLNG 1371	Expressive and Receptive Fingerspelling and Numbers* . . . . .	3
EDUC 1301	Introduction to Education . . . . .	3
EDUC 2301	Introduction to Special Education . . . . .	3
SPCH 2377	Intercultural Communication . . . . .	3
SOCI 1301	Introduction to Sociology . . . . .	3
SOCI 2319	Minority Studies . . . . .	3

\*May not always transfer.

### ANTHROPOLOGY

60 credit hours

#### Program Coordinator:

David Marble . . . . .SCC-B116 . . . . .972.516.5051

#### Academic Advisor:

Carie Andrews . . . . .SCC-G106 . . . . .972.881.5773

The Associate of Arts degree provides general academic courses and electives that enable students who intend to major in anthropology to transfer to a college or university. Because of the various transfer requirements of different colleges and universities, and to ensure enrollment in appropriate courses, students should consult with a CCCCD advisor and the college or university that they plan to attend.

The anthropology program is designed to provide students with essential life skills and help them better understand themselves and the world around them. Anthropology asks, "What does it mean to be human?", "What different ways are there of being human?", "How are we to understand these commonalities and differences?" These are critical questions for a world torn by racial and ethnic conflicts and divided by bigotry and unequal opportunities for individual growth and societal development. The study of such questions requires the integration of archaeological, biological, and cultural research — the basic components of anthropology. Anthropology majors or minors gain a solid foundation in the discipline that prepares them for transferring into a university program.

## Career Opportunities

The majority of students selecting anthropology as their emphasis at CCCCD transfer into a college or university program. Entry-level positions are available in cultural resource management firms upon completion of an associate degree. Anthropology majors at colleges and universities typically seek careers in teaching the social sciences or research and planning in governmental or corporate settings. An anthropology minor is an excellent choice for students considering careers in business, medicine, law, government, or diplomacy.

### AA Core Curriculum **45 credit hours**

See pages 44-45.

### Recommended Electives **12 credit hours**

ANTH 2301	Physical Anthropology	.....3
ANTH 2302	Introduction to Archaeology	.....3
ANTH 2346	General Anthropology	.....3
ANTH 2351	Cultural Anthropology	.....3
ANTH 2389	Academic Co-op Anthropology	.....3
BIOL 1471	Human Anatomy and Physiology Basics	.....4
BIOL 2416	Genetics	.....4
GEOG 1302	Cultural Geography	.....3
SOCI 1301	Introduction to Sociology	.....3
SOCI 2319	Minority Studies	.....3

## ART

60 credit hours

Also see Photography

### Program Coordinator:

Rex Reece .....SCC-A246 .....972.881.5804

### Academic Advisor:

Todd Fields .....SCC-G105 .....972.881.5903

The Associate of Arts degree provides general academic courses and electives that enable students who intend to major in art to transfer to a college or university. Because of the various transfer requirements of different colleges and universities, and to ensure enrollment in appropriate courses, students should consult with a CCCCD advisor and the college or university that they plan to attend.

The visual arts program offers courses in foundation classes such as drawing, design, and art appreciation and specialization classes such as painting, watercolor, ceramics, sculpture, printmaking, computer arts, and art history. 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. 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 visual artists. Instructors are highly trained, practicing artists who are dedicated to encouraging the individual student to reach his or her highest level of skill and creativity.

## Career Opportunities

Careers in visual arts are varied. Most visible are the practicing, professional visual 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. Students may enroll in Academic Co-op through Cooperative Work Experience to obtain practical experience in the career field.

### AA Core Curriculum **45 credit hours**

See pages 44-45.

### Recommended Electives **12 credit hours**

ARTS 1301	Art Appreciation	.....3
ARTS 1303	Art History I	.....3
ARTS 1304	Art History II	.....3
ARTS 1311	Design I	.....3
ARTS 1312	Design II	.....3
ARTS 1316	Drawing I	.....3
ARTS 1317	Drawing II	.....3
ARTS 1370	Problems in Contemporary Art	.....3
ARTS 2311	Introduction to Color/Painting	.....3
ARTS 2316	Painting I	.....3
ARTS 2317	Painting II	.....3
ARTS 2323	Life Drawing I	.....3
ARTS 2324	Life Drawing II	.....3
ARTS 2326	Sculpture I	.....3
ARTS 2327	Sculpture II	.....3
ARTS 2333	Printmaking I	.....3
ARTS 2334	Printmaking II	.....3
ARTS 2346	Ceramics I	.....3
ARTS 2347	Ceramics II	.....3
ARTS 2366	Watercolor I	.....3
ARTS 2367	Watercolor II	.....3
ARTS 2371	Portfolio	.....3
ARTS 2389	Academic Co-op Arts/Photography	.....3

NOTE: The second digit in a course number indicates the credit hours for that course.

## BUSINESS

60 credit hours

### Program Coordinators:

#### Accounting Emphasis

Paula Miller .....SCC-J219 .....972.881.5179

#### Business Emphasis

Peter Dawson .....SCC-K227 .....972.881.5031

#### Economics Emphasis

Mike Cohick .....SCC-J104 .....972.881.5840

### Academic Advisor:

Terrence Brennan .....PRC-F143 .....972.377.1513

The Business Field of Study will lead to a Bachelor of Business Administration (BBA) degree, including all specializations and concentrations offered at the college or university. The Field of Study curriculum will also apply to colleges/universities that award the Bachelor of Arts (BA) or Bachelor of Science (BS) degree with a major in business, including all business specializations. The completed Field of Study will transfer to any Texas public college or university.

Colleges and universities will have additional course requirements; therefore, you should visit with a CCCCD academic advisor to ensure that you take the correct courses for your business program.

### AA Core Curriculum

**39 credit hours**

See pages 44-45.

Substitute BCIS 1305, listed below, for COSC 1300 in the core curriculum.

### Field of Study

**21 credit hours**

ECON 2301 Principles of Macroeconomics .....3

ECON 2302 Principles of Microeconomics .....3

BCIS 1305 Business Computer Applications .....3

ACCT 2301 Financial Accounting .....3

ACCT 2302 Managerial Accounting .....3

MATH 1325 Calculus for Business & Economics I<sup>\*,1</sup> .....3

SPCH 1311 Fundamentals of Speech Communication<sup>\*</sup> .....3

OR

SPCH 1315 Public Speaking I<sup>\*</sup> .....3

### Recommended Electives

The following recommended electives may also be taken toward a bachelor's degree; however, they are not part of the Field of Study:

BUSI 1301 Introduction to Business<sup>2</sup> .....3

BUSI 2301 Business Law<sup>2</sup> .....3

MATH 1342 Statistics<sup>2</sup> .....3

\* Mathematics and Communications core components are fulfilled in these required Field of Study courses.

<sup>1</sup> CCCCD Prerequisite: MATH 1324 within the last three years.  
*Individual colleges and universities will determine their own prerequisite requirements.*

<sup>2</sup> Please check with the receiving college or university for transfer requirements.

## CRIMINAL JUSTICE

60 credit hours

### Program Coordinator:

David Marble .....SCC-B116 .....972.516.5051

### Academic Advisor:

Carie Andrews .....SCC-G106 .....972.881.5773

The Criminal Justice program prepares its graduates for continued educational attainment and entry-level employment in criminal justice agencies.

The Associate of Arts degree provides general academic courses and electives that enable students who intend to major in criminal justice to transfer to a college or university. Students planning to transfer to a college or university will have a solid foundation upon which to build as they pursue further studies in criminal justice.

Because of the various transfer requirements of different colleges and universities, and to ensure enrollment in appropriate courses, students should consult with a CCCCD advisor, the coordinator of the criminal justice program at CCCCD, and an advisor at the college or university they plan to attend.

### Career Opportunities

Criminal justice graduates are academically prepared for many entry-level positions in law-enforcement, court services, and corrections at the local, state, and federal levels of government. Through classroom and laboratory experiences, students acquire the fundamental knowledge and skills necessary to understand the criminal justice system, its agencies, personnel, and functions. Challenging career opportunities await graduates at all levels of government as:

- Corrections Officers
- Law Enforcement Officers and Investigators
- Probation Officers and Parole Officers
- Victim Services Counselors
- Youth Service and Juvenile Court Officers

**AA Core Curriculum 45 credit hours**

See pages 44-45.

**Recommended Electives 12 credit hours**

CRIJ 1301	Introduction to Criminal Justice	.....3
CRIJ 1306	Court Systems and Practices	.....3
CRIJ 1307	Crime in America	.....3
CRIJ 1310	Fundamentals of Criminal Law	.....3
CRIJ 1313	Juvenile Justice System	.....3
CRIJ 2301	Community Resources in Corrections	.....3
CRIJ 2313	Correctional Systems and Practices	.....3
CRIJ 2314	Criminal Investigation	.....3
CRIJ 2323	Legal Aspects of Law Enforcement	.....3
CRIJ 2328	Police Systems and Practices	.....3
CRIJ 2389	Academic Co-op Criminal Justice	.....3

**ECONOMICS**

See Business on page 51.

**EDUCATION**

Collin County Community College offers courses that fulfill the state requirements for Teacher Education. You must contact the teacher education program at the specific college or university to which you plan to transfer for detailed information. Contact names and phone numbers are available from a CCCCAD academic advisor.

**AA Core Curriculum 45 credit hours**

See pages 44-45.

The following courses must be completed under core component requirements:

- Mathematics – MATH 1314
- Humanities – 3 credit hours of sophomore literature
- Communication – SPCH 1321
- Natural/Lab Science

**CHILD DEVELOPMENT/EARLY CHILDHOOD EDUCATION (Pre-Kindergarten through Grade 4)**

60 credit hours

**Program Coordinator:**

Elaine Boski-Wilkinson . . . . . SCC-B132 . . . . . 972.881.5967

**Academic Advisor:**

Carie Andrews . . . . . SCC-G106 . . . . . 972.881.5773

The Child Development/Early Childhood Education Field of Study will lead to the Bachelor of Science in Human Sciences or Bachelor of Science in Interdisciplinary Studies with a Concentration in Child and Family Studies/Child Development – including a proposed Certification in Early Childhood Education. The completed Field of Study will transfer to any Texas public college or university.

Colleges and universities will have additional course requirements; therefore, you should visit with a CCCCAD academic advisor to ensure that you take the correct courses for your program.

**Field of Study 15 credit hours**

TECA 1303	Family and the Community	.....3
TECA 1311	Introduction to Early Childhood Education	...3
TECA 1318	Nutrition, Health, and Safety	.....3
TECA 1354	Child Growth and Development	.....3

*Choose one course from the following<sup>1</sup>:*

CDEC 1321	The Infant and Toddler	.....3
CDEC 1319	Child Guidance	.....3
CDEC 1358	Creative Arts for Early Childhood	.....3
CDEC 1359	Children with Special Needs	.....3
CDEC 2341	The School Age Child	.....3

<sup>1</sup> Check with the receiving college or university for transfer requirements.

**GRADES 4-8 CERTIFICATION**

60 credit hours

**Program Coordinator:**

Brenda Kihl . . . . . AHS-A101 . . . . . 214.495.5780

**Academic Advisor:**

Todd Fields . . . . . SCC-G105 . . . . . 972.881.5903

The Grade 4-8 Certification Field of Study will lead to the Bachelor of Science in Mathematics, Bachelor of Science in Science, Bachelor of Science in Mathematics/Science Composite, Bachelor of Science in Social Sciences/Language Arts Composite, or Bachelor of Science in Interdisciplinary Studies (Generalist and Bilingual Generalist). The completed Field of Study will transfer to any Texas public college or university.

Colleges and universities will have additional course requirements; therefore, you should visit with a CCCCAD academic advisor to ensure that you take the correct courses for your program.

**Field of Study 15 credit hours**

EDUC 1301	Introduction to Education	.....3
MATH 1350	Fundamentals of Math I	.....3
MATH 1351	Fundamentals of Math II	.....3
TECA 1354	Child Growth and Development	.....3

*Choose one course from the following<sup>1</sup>:*

CDEC 1359	Children with Special Needs	.....3
GEOG 1301	Physical Geography <sup>1</sup>	.....3
GEOG 1302	Cultural Geography <sup>1</sup>	.....3
PHYS 1415	Physical Science I	.....4
SPAN 1411	Beginning Spanish I	.....4
SPAN 2311	Intermediate Spanish I <sup>1</sup>	.....3

<sup>1</sup> Check with the receiving college or university for transfer requirements.

NOTE: The second digit in a course number indicates the credit hours for that course.



**SECONDARY EDUCATION**

Secondary education students must complete a bachelor's degree in an approved teaching field and a minor in secondary education. You should visit with a CCCCD academic advisor or the college or university to which you plan to transfer to ensure that you take the correct courses for your secondary education program.

**TEACHER CERTIFICATION PROGRAM**

The Teacher Certification Program is located within the Center for Teaching, Learning, and Professional Development at CCCCD@ALLEN (inside Allen High School). For details, see page 43 or contact the program coordinator.

**Program Coordinator:**

Brenda Kihl . . . . .AHS-A101 . . . . .214.495.5780

**IMPORTANT NOTE:**

The State Board for Educator Certification (SBEC) is changing teacher certification effective September 1, 2002. Beginning that date, there will be three levels of certification only: (1) Early Childhood through Grade 4, (2) Grades 4 through 8, and (3) Grades 8 through 12. The SBEC has stipulated that ALL requirements for the present certification(s) toward which you are currently working must be completed by August 31, 2002, in order to be certified under the "old" certifications. Otherwise, you will be required to meet the requirements of one of the new levels of certification, will be required to take different ExCET tests, and may likely be required to take additional courses.

**ENGLISH**

60 credit hours

**Program Coordinator:**

Sherill Cobb . . . . .SCC-B193 . . . . .972.881.5812

**Academic Advisor:**

Todd Fields . . . . .SCC-G105 . . . . .972.881.5903

The Associate of Arts degree provides general academic courses and electives that enable students who intend to major in English to transfer to a college or university. To make certain that students meet the various transfer requirements of different colleges and universities, and to ensure enrollment in appropriate courses, students should consult with a CCCCD advisor and with the college or university that they plan to attend.

An emphasis in English promotes the development of writing skills, reasoning, and critical thinking. Composition and rhetoric courses focus on expository and persuasive writing including argumentation, logical thinking, and research. An integral part of each course is a lab component that is designed to help students identify weak areas in their writing, eliminate individual writing problems, and strengthen writing skills.

The Writing Center, another part of the English program, provides professional consultation to students across the curriculum. At the center, students can get immediate help in composing, writing, and revising papers, resumes, reports, etc.

Some Composition/Rhetoric I courses are taught in computer classrooms. The department also offers distance learning classes. 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.

**AA Core Curriculum 45 credit hours**

See pages 44-45.

**Recommended Electives 12 credit hours**

ENGL 2307	Creative Writing . . . . .	3
ENGL 2311	Technical Writing . . . . .	3
ENGL 2322	British Literature I . . . . .	3
ENGL 2323	British Literature II . . . . .	3
ENGL 2327	American Literature I . . . . .	3
ENGL 2328	American Literature II . . . . .	3
ENGL 2332	World Literature I . . . . .	3
ENGL 2333	World Literature II . . . . .	3
ENGL 2342	Introduction to Literature I - Short Story and Novel . . . . .	3
ENGL 2343	Introduction to Literature II - Poetry and Drama . . . . .	3
XXXX x4xx	Foreign Language Sequence I . . . . .	4
XXXX x4xx	Foreign Language Sequence II . . . . .	4

**FRENCH**

60 credit hours

**Program Coordinator:**

Kemal Moula . . . . .SCC-G217 . . . . .972.881.5678

**Academic Advisor:**

Todd Fields . . . . .SCC-G105 . . . . .972.881.5903

The Associate of Arts degree provides general academic courses and electives that enable students who intend to major in French to transfer to a college or university. To make certain that students meet the various transfer requirements of different colleges and universities, and to ensure enrollment in appropriate courses,

...Continued Next Page

NOTE: The second digit in a course number indicates the credit hours for that course.

students should consult with a CCCCAD advisor and with the college or university that they plan to attend.

An emphasis in French provides the essential language background for the advanced study of French, for competency in understanding, speaking, and writing the language, and for a more rapid acquisition of other foreign languages (particularly romance languages such as 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, or 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.

#### AA Core Curriculum **45 credit hours**

See pages 44-45.

#### Recommended Electives **12 credit hours**

FREN 1100	French Conversational I <sup>1</sup>	.1
FREN 1110	French Conversational II <sup>2</sup>	.1
FREN 1411	Beginning French I	.4
FREN 1412	Beginning French II	.4
FREN 2303	French Literature I	.3
FREN 2304	French Literature II	.3
FREN 2311	Intermediate French I <sup>1</sup>	.3
FREN 2312	Intermediate French II <sup>2</sup>	.3

<sup>1</sup> Corequisites: must be taken simultaneously.

<sup>2</sup> Corequisites: must be taken simultaneously.

## GEOGRAPHY

60 credit hours

### Program Coordinator:

Debbie White . . . . .SCC-H221 . . . . .972.881.5163

### Academic Advisor:

Carie Andrews . . . . .SCC-G106 . . . . .972.881.5773

The Associate of Arts degree provides general academic courses and electives that enable students who intend to major in geography to transfer to a college or university. To make certain that students meet the various transfer requirements of different colleges and universities, and to ensure enrollment in appropriate courses, students should consult with a CCCCAD advisor and with the college or university that they plan to attend.

As our world approaches the Information Age and we enter a period in human history marked by increasing globalization, it is important for students to be geographically literate. The geography program is designed to expand students' knowledge about the physical and cultural environments of the world and prepare them for a career in the global market.

### Career Opportunities

Students transferring into a college or university geography curriculum can 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.

#### AA Core Curriculum **45 credit hours**

See pages 44-45.

#### Recommended Electives **12 credit hours**

GEOG 1301	Physical Geography	.3
GEOG 1302	Cultural Geography	.3
GEOG 1303	World Regional Geography	.3
ANTH 2351	Cultural Anthropology	.3
HIST 2311	Western Civilization I	.3
HIST 2312	Western Civilization II	.3
PSYC 2301	General Psychology	.3
XXXX x4xx	Foreign Language Sequence I	.4
XXXX x4xx	Foreign Language Sequence II	.4

## GERMAN

60 credit hours

### Program Coordinator:

Kemal Moula . . . . .SCC-G217 . . . . .972.881.5678

### Academic Advisor:

Todd Fields . . . . .SCC-G105 . . . . .972.881.5903

The Associate of Arts degree provides general academic courses and electives that enable students who intend to major in German to transfer to a college or university. To make certain that students meet the various transfer requirements of different colleges and universities, and to ensure enrollment in appropriate courses, students should consult with a CCCCAD advisor and with the college or university that they plan to attend.

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

NOTE: The second digit in a course number indicates the credit hours for that course.

### 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 European community and the world market. Combining the study of German with business or related degrees provides students with the tools to live and work in an international environment.

### AA Core Curriculum 45 credit hours

See pages 44-45.

### Recommended Electives 12 credit hours

GERM 1100	Conversational German I <sup>1</sup>	.....1
GERM 1110	Conversational German II <sup>2</sup>	.....1
GERM 1411	Beginning German I	.....4
GERM 1412	Beginning German II	.....4
GERM 2303	German Literature I	.....3
GERM 2304	German Literature II	.....3
GERM 2311	Intermediate German I <sup>1</sup>	.....3
GERM 2312	Intermediate German II <sup>2</sup>	.....3

<sup>1</sup> Corequisites: must be taken simultaneously.

<sup>2</sup> Corequisites: must be taken simultaneously.

## GOVERNMENT

60 credit hours

### Program Coordinators:

Lynn Jones	.....SCC-J107	.....972.881.5841
Ted Lewis	.....PRC-F213	.....972.377.1535

### Academic Advisor:

Carie Andrews	.....SCC-G106	.....972.881.5773
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An Associate of Arts degree in government is a stepping-stone to a liberal arts education. The second step is a bachelor's degree from a college or university. The Government program features introductory courses in political science, American, and Texas politics. The courses emphasize contemporary political analysis, critical thinking, and hands-on experiential learning exercises.

### Career Opportunities

A major in government provides an excellent background for law school, a career in education or a broad background in the liberal arts which is valued by employers in all areas.

### AA Core Curriculum 45 credit hours

See pages 44-45.

### Recommended Electives 12 credit hours

GOVT 2304	Introduction to Political Science	.....3
CRIJ 1301	Introduction to Criminal Justice	.....3

ECON 2301	Principles of Macroeconomics	.....3
ECON 2302	Principles of Microeconomics	.....3
PHIL 2303	Introduction to Logic	.....3
PHIL 2306	Introduction to Ethics	.....3
PSYC 2301	General Psychology	.....3
XXXX x4xx	Foreign Language Sequence I	.....4
XXXX x4xx	Foreign Language Sequence II	.....4

## HISTORY

60 credit hours

### Program Coordinators:

Wendy Gunderson	.....PRC-F217	.....972.377.1536
Kyle Wilkison	.....SCC-G223	.....972.881.5834

### Academic Advisor:

Carie Andrews	.....SCC-G106	.....972.881.5773
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The Associate of Arts degree provides general academic courses and electives that enable students who intend to major in history to transfer to a college or university. To make certain that students meet the various transfer requirements of different colleges and universities, and to ensure enrollment in appropriate courses, students should consult with a CCCCD advisor and with the college or university that they plan to attend.

The History program is designed for students interested in completing an associate degree as well as students pursuing a bachelor's degree. The American survey history courses meet the state's requirement for six hours of American history. In addition to the survey courses, the program also includes classes in Western Civilization (required by some colleges) and courses designed to examine a specific topic in detail, such as "The 1960s," "The Civil War," "History of the American South," "History of the Civil War and Reconstruction," "History of the Cold War," "History of Race Relations in the United States," "History of Religion in the United States," "History of World War II, and "Texas History." These courses count as elective hours, or in some cases will transfer as part of the state's six-hour requirement.

### Career Opportunities

Background acquired by students majoring in history prepares them for careers in a variety of fields such as journalism, law, politics, social work, television and radio, etc. A degree in history is also beneficial to students seeking a career as 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 of computer/video/film documentaries.

NOTE: The second digit in a course number indicates the credit hours for that course.

**AA Core Curriculum 45 credit hours**

See pages 44-45.

**Recommended Electives 12 credit hours**

HIST 2301	History of Texas	.3
HIST 2311	Western Civilization I	.3
HIST 2312	Western Civilization II	.3
ECON 2301	Principles of Macroeconomics	.3
ECON 2302	Principles of Microeconomics	.3
PHIL 1301	Introduction to Philosophy	.3
PHIL 2303	Introduction to Logic	.3
PSYC 2301	General Psychology	.3
SOCI 1301	Introduction to Sociology	.3
XXXX x4xx	Foreign Language Sequence I	.4
XXXX x4xx	Foreign Language Sequence II	.4

**MUSIC**

66 credit hours

Also see AAS – Commercial Music

**Program Coordinator:**

Brian Allison . . . . .SCC-B182 . . . . .972.881.5813

**Academic Advisor:**

Todd Fields . . . . .SCC-G105 . . . . .972.881.5903

The Associate of Arts degree in music provides the approved field of study for all music majors intending to transfer upon degree completion to a college or university. The curriculum offers the required music theory, ear training, keyboard skills, music literature, private applied study, and ensemble participation that all music majors must complete during their freshman and sophomore years.

Students should consult with the college or university that they plan attending before taking additional courses beyond those outlined in the Associate of Arts emphasis in music.

**Career Opportunities**

- Music Education
- Performer
- Composer

**Music Core Curriculum 31 credit hours**

ENGL 1301	Composition/Rhetoric I	.3
HIST 1301	U. S. History I	.3
MATH 1314	College Algebra <sup>1</sup>	.3
ENGL 1302	Composition/Rhetoric II	.3
HIST 1302	U. S. History II	.3
PSYC 2301	General Psychology <sup>2</sup>	.3
GOVT 2301	American Government I	.3

GOVT 2302	American Government II	.3
Natural Science <sup>3</sup>		.4
SPCH 1311	Fundamentals of Speech Communications <sup>4</sup>	.3

**Field of Study Courses 35 credit hours**

MUSI 1311	Music Theory I	.3
MUSI 1116	Aural Skills I	.1
MUAP 12xx	Principal Applied Music (one each semester)	.8
MUEN x1xx	Ensemble (one each semester)	.4
OR		
MUSP x1xx	Ensemble (one each semester)	.4
MUSI 1181	Beginning Piano I <sup>5</sup>	.1
MUSI 1312	Music Theory II	.3
MUSI 1117	Aural Skills II	.1
MUSI 1182	Beginning Piano II <sup>5</sup>	.1
MUSI 2311	Music Theory III	.3
MUSI 2116	Aural Skills III	.1
MUSI 2181	Beginning Piano III <sup>5</sup>	.1
MUSI 2308	Introduction to Music Literature	.3
MUSI 2312	Music Theory IV	.3
MUSI 2117	Aural Skills IV	.1
MUSI 2182	Beginning Piano IV <sup>5</sup>	.1

- <sup>1</sup> A higher level mathematics course may be substituted.
- <sup>2</sup> May substitute PSYC 2302
- <sup>3</sup> Select from approved courses on page 45.
- <sup>4</sup> May substitute SPCH 1315
- <sup>5</sup> All music majors must see the program coordinator. Students exempted from Class Piano should select four (4) credit hours from the following: MUAP 11xx, MUSI 1183, MUSI 1184, MUSI 1192, or MUSI 1193.

**PARALEGAL/LEGAL ASSISTANT**

60 credit hours

Also see Associate of Applied Science Paralegal/Legal Assistant

**Program Coordinator:**

Division Office . . . . .PRC-H245 . . . . .972.377.1731

**Academic Advisor:**

Terrence Brennan . . . . .PRC-F143 . . . . .972.377.1513

Texas Woman's University (TWU) and CCCCD Paralegal programs entered an articulation agreement effective fall 1999 that establishes a plan for students to obtain an Associate of Arts degree from CCCCD and a Bachelor of Science degree in Paralegal Studies from TWU. Students pursuing this plan will be assured transfer of all CCCCD legal courses toward a BS at TWU. Additionally, TWU offers paralegal courses on CCCCD campuses.

NOTE: The second digit in a course number indicates the credit hours for that course.



**Career Opportunities**

Employment opportunities for entry-level paralegals/legal assistants are available to students who have completed an associate degree. However, market trends indicate that students should pursue a bachelor's degree.

**Job Description**

Law firms, corporations, and governmental agencies hire paralegals to manage an array of legal responsibilities under the direction and supervision of a licensed attorney. Paralegals must be proficient in computer skills, legal terminology, and legal procedures. Responsibilities routinely performed by paralegals include drafting legal documents, performing legal research, obtaining information relevant to cases, interviewing clients and witnesses, and assisting in trial preparation.

**AA Core Curriculum 45 credit hours**

See pages 44-45.

**Recommended Electives 12 credit hours\***

LGLA 1303	Legal Research	.....3
LGLA 1307	Introduction to Law and the Legal Profession	..3
LGLA 1346	Civil Litigation I	.....3
LGLA 1347	Civil Litigation II	.....3
LGLA 2307	Law Office Management	.....3
LGLA 2333	Advanced Legal Document Preparation	.....3

\* LGLA 1303, LGLA 1307, LGLA 1346, LGLA 1347, and LGLA 2307 are required under the TWU/CCCCD articulation agreement. Additional hours may be required for transfer. Contact the program coordinator.

**PHILOSOPHY**

60 credit hours

**Program Coordinator:**

Carl Hasler .....SCC-C224 .....972.881.5753

**Academic Advisor:**

Todd Fields .....SCC-G105 .....972.881.5903

The Associate of Arts degree provides general academic courses and electives that enable students who intend to major in philosophy to transfer to a college or university. To make certain that students meet the various transfer requirements of different colleges and universities, and to ensure enrollment in appropriate courses, students should consult with a CCCC CD advisor and with the college or university that they plan to attend.

The Philosophy program seeks to develop men and women dedicated to the pursuit of knowledge. Students become acquainted with the main problems of philosophy. Emphasis is placed on philosophical thinking that enables graduates to integrate their work and their lives.

**Career Opportunities**

- Preparation for those who plan to major in philosophy at a college or university
- Preparation for related fields such as law, government, education, business, science, and the humanities

**AA Core Curriculum 45 credit hours**

See pages 44-45.

**Recommended Electives 12 credit hours**

PHIL 1301	Introduction to Philosophy	.....3
PHIL 1304	Comparative Religion	.....3
PHIL 2303	Introduction to Logic	.....3
PHIL 2306	Introduction to Ethics	.....3
PHIL 2307	Introduction to Social and Political Philosophy	..3
PHIL 2371	Philosophy of Art/Aesthetics	.....3
ENGL 2322	British Literature I	.....3
ENGL 2323	British Literature II	.....3
ENGL 2332	World Literature I	.....3
ENGL 2333	World Literature II	.....3
GOVT 2304	Introduction to Political Science	.....3
HIST 2311	Western Civilization I	.....3
HIST 2312	Western Civilization II	.....3
XXXX x4xx	Foreign Language Sequence I	.....4
XXXX x4xx	Foreign Language Sequence II	.....4

**PHOTOGRAPHY**

60 credit hours

**Program Coordinator:**

June Van Cleef .....SCC-H206 .....972.881.5827

**Academic Advisor:**

Todd Fields .....SCC-G105 .....972.881.5903

For commercial photography, instructional emphasis is offered in product illustration, news/editorial photography, color processing and printing, the portrait, large format photography, and digital photography.

For fine arts photography, courses are offered in landscape, portrayal, large format cameras and the zone system, non-silver processes, and portfolio.

**Career Opportunities**

- Jobs in photography vary and can be applied to related disciplines:
- Architectural Photographer
  - Commercial Illustration
  - Digital Image Manipulation
  - Freelance Work
  - Historical Documentary Photographer
  - Industrial Photography

...Continued on Next Page

NOTE: The second digit in a course number indicates the credit hours for that course.

- Multimedia Presentation
- News/Editorial
- Photo Lab Technician
- Portrait Studio
- Product Catalog Illustration
- Teaching

**AA Core Curriculum 45 credit hours**

See pages 44-45.

**Recommended Electives 12 credit hours**

ARTS 2356	Photography I	.....3
ARTS 2357	Photography II	.....3
ARTS 2370	Photography Portrayal	.....3
ARTS 2371	Contemporary Studies in Visual Arts/Photography <sup>1</sup>	.....3
ARTS 2372	History of Photography	.....3
ARTS 2389	Academic Co-op Arts/Photography	.....3
COMM 1316	Photo Illustration	.....3
COMM 1317	Applied Photography	.....3
DRAM 2366	History of Film Making I	.....3

<sup>1</sup> Check the current Schedule of Classes for semester topics.

**PSYCHOLOGY**

60 credit hours

**Program Coordinators:**

Dan Lipscomb	.....SCC-H252	.....972.881.5715
Barbara Lusk	.....CPC-B252B	.....972.548.6809

**Academic Advisor:**

Carie Andrews	.....SCC-G106	.....972.881.5773
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An Associate of Arts degree in psychology serves as a foundation for continued studies in psychology. Since most careers in psychology require a graduate degree, many students transfer to a college or university and eventually enter graduate school in psychology. The psychology program features a variety of introductory courses exploring the nature of behavior and mental processes. Course offerings 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 that further emphasize practical application of course material.

**Career Opportunities**

Students who earn advanced 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.

**AA Core Curriculum 45 credit hours**

See pages 44-45.

**Recommended Electives 12 credit hours**

PSYC 2301	General Psychology	.....3
PSYC 2306	Human Sexuality	.....3
PSYC 2314	Life Span Psychology	.....3
PSYC 2315	Psychology of Adjustment	.....3
PSYC 2316	Psychology of Personality	.....3
PSYC 2319	Social Psychology	.....3
SOCI 1301	Introduction to Sociology	.....3
SOCI 1306	Social Problems	.....3
SOCI 2301	Marriage and Family	.....3
SOCI 2371	Selected Topics in Sociology	.....3

**SOCIOLOGY**

60 credit hours

**Program Coordinator:**

Debbie White	.....SCC-H221	.....972.881.5163
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**Academic Advisor:**

Carie Andrews	.....SCC-G106	.....972.881.5773
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The Sociology program at CCCCD is designed to provide students with essential life skills and a deeper understanding of themselves, others, and the various social worlds that they inhabit. Sociology examines how social factors affect both behavior and the potential consequences of that behavior. It seeks to uncover the existence of social patterns, explain how they come to be so, and then explore the consequences of such patterns for different individuals, groups, collectives, and society at large. As such, sociology courses at CCCCD enable students to comprehend the widespread social changes that accompany society's transition into the Information Age.

Critical thinking skills and a global perspective—attributes that will benefit students regardless of their major—are strongly emphasized in the program. Students who either major or minor in sociology will gain a solid foundation in the discipline and will be well prepared to transfer into a university program.

**Career Opportunities**

Sociology is an excellent minor for students considering careers in education, business, law, social work, medicine, or psychology. The knowledge gained from sociology courses enhances 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.

NOTE: The second digit in a course number indicates the credit hours for that course.

**AA Core Curriculum 45 credit hours**

See pages 44-45.

**Recommended Electives 12 credit hours**

SOCI 1301	Introduction to Sociology	3
SOCI 1306	Social Problems	3
SOCI 2301	Marriage and Family	3
SOCI 2306	Human Sexuality	3
SOCI 2319	Minority Studies	3
SOCI 2371	Selected Topics in Sociology	3
ANTH 2351	Cultural Anthropology	3
PSYC 2301	General Psychology	3
PSYC 2314	Life Span Psychology	3
PSYC 2316	Psychology of Personality	3
PSYC 2319	Social Psychology	3

**SPANISH**

60 credit hours

**Program Coordinators:**

Ana Girón	SCC-G215	972.881.5724
Frozina Goussak	SCC-K240	972.881.5141

**Academic Advisor:**

Todd Fields	SCC-G105	972.881.5903
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The 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 (such as 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**

The demand for Spanish both in the community and the business environment is growing rapidly. Combining Spanish with another field can expand opportunities in nursing, teaching, computer science, sociology, banking, counseling, law, and in many other areas.

**AA Core Curriculum 45 credit hours**

See pages 44-45.

**Recommended Electives 12 credit hours**

SPAN 1300	Conversational Spanish I	3
SPAN 1310	Conversational Spanish II	3
SPAN 1411	Beginning Spanish I	4
SPAN 1412	Beginning Spanish II	4
SPAN 2311	Intermediate Spanish I	3

SPAN 2312	Intermediate Spanish II	3
SPAN 2321	Spanish Literature I	3
SPAN 2322	Spanish Literature II	3

**SPEECH AND INTERCULTURAL COMMUNICATION**

60 credit hours

**Program Coordinator:**

Ralph Long	SCC-H215	972.881.5982
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**Academic Advisor:**

Todd Fields	SCC-G105	972.881.5903
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The Associate of Arts degree in speech and intercultural communication gives students a broad background in communication competencies. Speech communication courses improve interpersonal communication skills and teach presentation techniques. Students taking courses in Speech Communications gain enhanced awareness of the impact communication skills have both in the personal and professional arenas. Both the traditional rhetorical approach (oral presentation) and the behavioristic approach (communication theory and skill) are reflected in speech communication course offerings.

Students who desire practical experience in their career fields may enroll in an academic co-op through Cooperative Work Experience.

**Career Opportunities**

The Associate of Arts degree with an emphasis in Speech Communication provides students with a solid foundation for careers 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 possible careers. The emphasis also offers the academic foundation to successfully complete a bachelor's degree at a college or university, and then to pursue a career in fields such as mass media, public relations, law, government, personnel, employee relations, and education.

**AA Core Curriculum 45 credit hours**

See pages 44-45.

**Recommended Electives 12 credit hours**

SPCH 1311	Fundamentals of Speech Communication	3
SPCH 1315	Public Speaking I	3
SPCH 1321	Business and Professional Speaking	3
SPCH 2377	Intercultural Communication	3
COMM 1307	Introduction to Mass Communication	3
COMM 2331	Radio and TV Announcing	3
COMM 2332	Radio/Television News	3

NOTE: The second digit in a course number indicates the credit hours for that course.

**INTERCULTURAL COMMUNICATION**

60 credit hours

**Program Coordinator:**

Shelley Lane .....SCC-B108 .....972.881.5821

**Academic Advisor:**

Todd Fields .....SCC-G105 .....972.881.5903

The study of intercultural communication enables students to successfully interact with individuals from foreign countries and with individuals in our own culturally diverse population. Economic globalization, increased mobility and communications technology have created a demand for employees, tourists, and others to obtain knowledge of international cultures and competence in intercultural communication. Similarly, the population of the United States is now more diverse than at any time in our history; therefore, competence in intercultural communication is necessary for successful interactions in our communities, schools, places of employment, and in our everyday lives.

**Career Opportunities**

Intercultural communication provides students with a solid foundation for careers that involve a high degree of interaction with a culturally diverse public. Occupations involving the hotel/hospitality industry, the travel industry, and conference and special events planning are possible careers. The Associate of Arts degree with an emphasis in Intercultural Communication offers the academic foundation to successfully complete a bachelor's degree at a college or university, and to pursue a career in fields such as business, education, foreign service, human resources, law, and social work.

**AA Core Curriculum** **45 credit hours**

See pages 44-45.

**Required Course** **3 credit hours**

SPCH 2377 Intercultural Communication .....3

**Recommended Electives** **9 credit hours**

ANTH 2351 Cultural Anthropology .....3

GEOG 1302 Cultural Geography .....3

HIST 2311 Western Civilization I .....3

HIST 2312 Western Civilization II .....3

HUMA 1302 Cultural Diversity .....3

PHIL 1304 Comparative Religion .....3

SLNG 1447 Deaf Culture .....4

SOCJ 2319 Minority Studies .....3

XXXX x4xx Foreign Language Sequence I .....4

XXXX x4xx Foreign Language Sequence II .....4

**INSTITUTIONAL CERTIFICATE IN INTERCULTURAL COMMUNICATION**

17 credit hours

**Required Course** **3 credit hours**

SPCH 2377 Intercultural Communication .....3

**Foreign Language Courses** **8 credit hours**

From the following list, choose two courses of the same foreign language.

CHIN 1411 Beginning Chinese I .....4

CHIN 1412 Beginning Chinese II .....4

FREN 1411 Beginning French I .....4

FREN 1412 Beginning French II .....4

GERM 1411 Beginning German I .....4

GERM 1412 Beginning German II .....4

JAPN 1411 Beginning Japanese I .....4

JAPN 1412 Beginning Japanese II .....4

RUSS 1411 Beginning Russian I .....4

RUSS 1412 Beginning Russian II .....4

SGNL 1401 American Sign Language (ASL): Beginning I ..4

SGNL 1402 American Sign Language (ASL): Beginning II ..4

SPAN 1411 Beginning Spanish I .....4

SPAN 1412 Beginning Spanish II .....4

**Recommended Electives** **6 credit hours**

Choose two courses from the following list.

ANTH 2351 Cultural Anthropology .....3

GEOG 1302 Cultural Geography .....3

HIST 2311 Western Civilization I .....3

HIST 2312 Western Civilization II .....3

HUMA 1302 Cultural Diversity .....3

PHIL 1304 Comparative Religion .....3

SLNG 1447 Deaf Culture .....4

SOCJ 2319 Minority Studies .....3

**THEATRE**

60 credit hours

**Program Coordinator:**

Brad Baker .....SCC-C155 .....972.881.5679

**Academic Advisor:**

Todd Fields .....SCC-G105 .....972.881.5903

The Associate of Arts degree provides general academic courses and electives that enable students who intend to major in Drama to transfer to a college or university. Because of the various transfer requirements of different colleges and universities, and to ensure enrollment in appropriate courses, students should consult with a CCCCAD advisor and the college or university that they plan to attend.

NOTE: The second digit in a course number indicates the credit hours for that course.



The theatre program at CCCC was the 1996 national champion of collegiate drama, as determined by the Kennedy Center/American College Theatre Festival and has been ranked among the top 50 collegiate drama programs nationally during each of the past five years and was ranked in the top 10 in 2001.

The Quad C Theatre program strives to introduce students to the aesthetic and analytical elements of theatrical productions. It offers studies in the principles and practices of acting, stagecraft, basic costuming preparation, theatre marketing, technical theatre production, and stage management. The labs permit students to have hands-on experiences through performances, as well as shop and crew duties. Our studies include contemporary theories and classical aspects of theatrical productions.

CCCC's theatre program offers a full curriculum of theatre study including work in beginning and advanced acting, voice and diction, scenic, sound, and lighting design, costume design and stage makeup, theatre history and dramatic literature, and specialty courses in circus skills, stunt work, stage combat, directing, musical theatre, and acting for the camera. Theatre program faculty and students have experience in professional stage and motion picture work.

For more information about the Quad C Theatre program, contact Brad Baker, Director of Theatre, at SCC-C155, 972.881.5679, or via e-mail at bbaker@cccc.edu.

**Career Opportunities**

- Costume Technician
- Lighting Technician
- Performer
- Producer/Director
- Scenic Artist
- Sound Technician
- Technical Director/Stage Manager
- Theatre Education
- Theatre Marketing and Management

**AA Core Curriculum 45 credit hours**

See pages 44-45.

**Recommended Electives 12 credit hours**

BUSI 2379	Business of Theatre	.....3
DRAM 1120	Theatre Practicum - Performance	.....1
DRAM 1121	Theatre Practicum - Technical	.....1
DRAM 1310	Introduction to the Theatre	.....3
DRAM 1330	Stagecraft I	.....3
DRAM 1341	Theatrical Makeup	.....3
DRAM 1342	Introduction to Costuming	.....3

DRAM 1351	Acting I	.....3
DRAM 1352	Acting II	.....3
DRAM 2331	Stagecraft II	.....3
DRAM 2336	Voice and Diction	.....3
DRAM 2351	Acting III	.....3
DRAM 2361	History of Theatre I	.....3
DRAM 2362	History of Theatre II	.....3
DRAM 2366	History of Film Making I	.....3
DRAM 2367	History of Film Making II	.....3
DRAM 2371	Acting for Film and Television	.....3
DRAM 2371	Advanced Stage Combat	.....3
DRAM 2371	Costume Design II	.....3
DRAM 2371	Improvitational Drama	.....3
DRAM 2371	Intermediate Makeup	.....3
DRAM 2371	Introduction to Directing	.....3
DRAM 2371	Introduction to Musical Theatre	.....3
DRAM 2371	Movement for the Actor	.....3
DRAM 2371	New York Theatre Field Studies	.....3
DRAM 2371	Sound Design for Film/TV	.....3
DRAM 2371	Stage Lighting	.....3
DRAM 2371	Stage Management	.....3
DRAM 2371	Contemporary American Dramatic Literature	.....3
DRAM 2371	Theatre Outreach	.....3

**AREAS OF EMPHASIS FOR THE ASSOCIATE OF SCIENCE DEGREE**

**BIOLOGY**

60 credit hours

**Program Coordinators:**

David McCulloch	.....SCC-J225	.....972.881.5991
Mary Weis	.....SCC-K244	.....972.881.5725

**Academic Advisors:**

Tori Hoffman	.....SCC-G103	.....972.881.5783
Windy Pitcock	.....SCC-G103	.....972.881.5782

The Associate of Science degree with a biology emphasis provides an educational foundation to prepare students to pursue university studies leading to a bachelor's degree in a science-related field. 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. 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.

NOTE: The second digit in a course number indicates the credit hours for that course.

## Career Opportunities

Many 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. The career areas listed below require training beyond the Associate of Science degree and some will require a post-graduate degree.

- Agriculture
- Allied Health Sciences
- Biotechnology
- Botany
- Dentistry
- Ecology
- Environmental Science
- Genetic Counseling
- Genetic Engineering
- Marine Science
- Medical Research
- Medical Technology
- Medicine
- Microbiology
- Nutrition and Dietary Science
- Pharmacology
- Physical Therapy
- Science Education
- Toxicology
- Veterinary Science
- Wildlife Biology

### AS Core Curriculum **45 credit hours**

See pages 44-45.

### Recommended Electives **12 credit hours**

BIOL 1322	General Nutrition	.3
BIOL 1411	General Botany	.4
BIOL 1424	Systematic Botany	.4
BIOL 1470	Marine Biology	.4
BIOL 1472	Field Biology	.4
BIOL 2389	Academic Co-op Biology	.3
BIOL 2401	Anatomy and Physiology I	.4
BIOL 2402	Anatomy and Physiology II	.4
BIOL 2406	Environmental Biology	.4
BIOL 2416	Genetics	.4
BIOL 2420	Microbiology	.4
BIOL 2428	Comparative Vertebrate Anatomy	.4
BIOL 2470	Human Genetics	.4
CHEM 1411	General Chemistry I	.4
CHEM 1412	General Chemistry II	.4
CHEM 2423	Organic Chemistry I	.4

CHEM 2425	Organic Chemistry II	.4
ENVR 1470	West Texas Natural History	.4
SRGT 1301	Medical Terminology I	.3
MATH 1342	Statistics	.3
PHYS 1401	General Physics I	.4
PHYS 1402	General Physics II	.4
PHYS 2425	University Physics I	.4
PHYS 2426	University Physics II	.4

## CHEMISTRY

60 credit hours

### Program Coordinator:

Amina El-Ashmawy . . . .SCC-K226 . . . . .972.881.5961

### Academic Advisors:

Tori Hoffman . . . . .SCC-G103 . . . . .972.881.5783

Windy Pitcock . . . . .SCC-G103 . . . . .972.881.5782

The Associate of Science degree with an emphasis in chemistry establishes an academic foundation for further studies in the sciences. Courses include general chemistry and organic chemistry, as well as an introduction to chemistry designed for students who are novices in the 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 CCCCD 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 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

NOTE: The second digit in a course number indicates the credit hours for that course.

**AS Core Curriculum** **45 credit hours**

See pages 44-45.

**Recommended Electives** **12 credit hours**

CHEM 1170	Biochemistry	1
CHEM 2389	Academic Co-op Chemistry	3
CHEM 2401	Analytical Chemistry	4
CHEM 2423	Organic Chemistry I	4
CHEM 2425	Organic Chemistry II	4
MATH 2320	Differential Equations	3
MATH 2415	Calculus III	4
PHYS 2425	University Physics I	4
PHYS 2426	University Physics II	4

**COMPUTER SCIENCE**

60 credit hours

**Program Coordinators:**

William Blitt	SCC-J115	.972.881.5184
Mary Emerson	PRC-H111	.972.377.1687

**Academic Advisor:**

Terrence Brennan	PRC-F143	.972.377.1513
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The Associate of Science degree with an emphasis in computer science prepares students for work in a variety of related areas. The coursework for a Bachelor of Science in computer science is similar at most colleges and universities; however, the student is advised to consult an academic advisor when deciding upon which university to attend and which course of study to pursue.

**Career Opportunities**

Software engineers and computer scientists currently occupy more than two-thirds of all technical and a large percentage of managerial positions in industry. The computer science program prepares students for transfer to a college or university where they can specialize in such disciplines as computer science and computer software engineering.

**AS Core Curriculum** **45 credit hours**

See pages 44-45.

**Recommended Electives** **12 credit hours**

COSC 1320	C++ for Programmers <sup>1</sup>	3
COSC 2315	Object-Oriented Data Structures with C++	3
COSC 2320	Object-Oriented Programming <sup>2</sup>	3
COSC 2325	Assembly Language	3
ENGL 2311	Technical Writing	3
ENGL 23xx	Any Literature course	3
MATH 2305	Discrete Mathematics	3
PHIL 2303	Introduction to Logic	3

<sup>1</sup> May substitute COSC 1420<sup>2</sup> May substitute COSC 2420**ENGINEERING**

60 credit hours

**Program Coordinator:**

Susan Marshall-Winslow	PRC-H217	.972.377.1716
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**Academic Advisor:**

Susan Nethery	PRC-F142	.972.377.1779
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The Associate of Science degree in engineering prepares students for transfer to a college or university in most engineering degrees. The student is advised to consult with an academic advisor when selecting a transfer college or university.

**Career Opportunities**

Engineers presently occupy more than two-thirds of all technical and a large percentage of managerial positions in industry. The engineering program prepares students for transfer to a college or university where they can specialize in such disciplines as:

- Aerospace Engineering
- Agriculture Engineering
- Biochemical & Food Engineering
- Bioengineering
- Chemical Engineering
- Civil Engineering
- Computer Science Engineering
- Electrical Engineering
- Forest Engineering
- Industrial Engineering
- Mechanical Engineering
- Nuclear Engineering
- Ocean Engineering
- Petroleum Engineering
- Radiological Health Engineering

**AS Core Curriculum** **45 credit hours**

See pages 44-45.

**Recommended Electives** **12 credit hours**

ENGL 2311	Technical Writing	3
ENGR 1304	Engineering Graphics	3
ENGR 2301	Engineering Mechanics I	3
ENGR 2302	Engineering Mechanics II	3
ENGR 2332	Materials and Processes	3
ENGR 2405	Electrical Circuit Analysis	3
CHEM 1411	General Chemistry I	4
CHEM 1412	General Chemistry II	4
MATH 2318	Linear Algebra	3
MATH 2320	Differential Equations	3
MATH 2415	Calculus III	4

NOTE: The second digit in a course number indicates the credit hours for that course.

## ENVIRONMENTAL SCIENCE

60 credit hours

### Program Coordinator:

Daphne Hall . . . . .PRC-F211 . . . . .972.377.1640

### Academic Advisors:

Tori Hoffman . . . . .SCC-G103 . . . . .972.881.5783

Windy Pitcock . . . . .SCC-G103 . . . . .972.881.5782

Environmental science is a multidisciplinary field concerned with the interaction of processes that shape our natural environment, more specifically, understanding environmental problems and finding solutions to them. Students pursuing an Associate of Science degree with emphasis in environmental science will find that this field requires the understanding of a number of disciplines, including the biological, chemical, and physical sciences, engineering, law, economics, and environmental health and safety.

Environmental science majors pursue careers in business and industry, government agencies, educational institutions, and private consulting firms in broad or specialized fields such as air pollution, laboratory services, solid and hazardous waste, natural resource management, regulatory affairs, remediation, risk assessment, toxicology, pollution prevention, health and safety, and water and wastewater.

### AS Core Curriculum 45 credit hours

See pages 44-45.

### Recommended Electives 12 credit hours

ENVR 1401	Environmental Science I . . . . .	4
ENVR 1402	Environmental Science II . . . . .	4
ENVR 1470	West Texas Natural History . . . . .	4
BIOL 1406	General Biology I . . . . .	4
BIOL 1470	Marine Biology . . . . .	4
BIOL 2406	Environmental Biology . . . . .	4
CHEM 1411	General Chemistry I . . . . .	4
GEOL 1403	Physical Geology . . . . .	4
GEOL 1405	Earth Habitat . . . . .	4
GEOL 1445	Oceanography . . . . .	4
GEOL 1447	Introduction to Meteorology . . . . .	4
PHYS 1401	General Physics I . . . . .	4

## GEOLOGY

60 credit hours

### Program Coordinator:

Robert Forester . . . . .SCC-B228 . . . . .972.881.5712

### Academic Advisors:

Tori Hoffman . . . . .SCC-G103 . . . . .972.881.5783

Windy Pitcock . . . . .SCC-G103 . . . . .972.881.5782

The science of geology seeks to understand the earth and the natural processes that act within the earth's environment. The basic concepts of geology overlap several disciplines. Knowledge of geology provides a background for careers in geology and environment fields.

The Associate of Science degree with an emphasis in geology prepares the student to pursue university studies leading to a bachelor's degree. The basic AS program in geology prepares the student for further education in fields such as geology, environmental science, or resource management. Students seeking advanced degrees in geological or environmental fields should select electives related to their field of interest. Students planning to transfer to a college or university should check with the specific degree plan requirements of their intended major.

### Career Opportunities

Geology students may select a career in a wide range of geological and environmental 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 geology student include:

- Civil Engineering
- Environmental Engineering
- Environmental Science
- Geochemistry
- Geology
- Geophysics
- Hydrogeology
- Land-use Planning
- Meteorology
- Mining Technology
- Oceanography
- Resource Management
- Seismology
- Soil Science
- Waste Management

NOTE: The second digit in a course number indicates the credit hours for that course.



**AS Core Curriculum** **45 credit hours**

See pages 44-45.

**Recommended Electives** **12 credit hours**

GEOL 1305	Natural Disasters	3
GEOL 1347	Introduction to Meteorology	3
GEOL 1402	Dinosaurs!	4
GEOL 1405	Earth Habitat	4
GEOL 1445	Oceanography	4
GEOL 2389	Academic Co-op Geology	3
GEOL 2409	Rocks, Minerals, and Gem Stones	4
CHEM 1411	General Chemistry I	4
CHEM 1412	General Chemistry II	4
ENGL 2311	Technical Writing	3
ENVR 1470	West Texas Natural History	4
MATH 1342	Statistics	3
MATH 2413	Calculus I	4
MATH 2414	Calculus II	4
PHYS 2425	University Physics I	4
PHYS 2426	University Physics II	4

**MATHEMATICS**

60 credit hours

**Program Coordinators:**

Nick Geller . . . . .PRC-F235 . . . . .972.377.1674  
Denise Brown . . . . .SCC-B134 . . . . .972.881.5886

**Academic Advisors:**

Tori Hoffman . . . . .SCC-G103 . . . . .972.881.5783  
Windy Pitcock . . . . .SCC-G103 . . . . .972.881.5782

The Associate of Science degree provides general academic courses and electives that enable students who intend to major in mathematics to transfer to a college or university. Because of the various transfer requirements of different colleges and universities, and to ensure enrollment in appropriate courses, students should consult with a CCCCAD advisor and the college or university that they plan to attend.

The Mathematics program offers courses that 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 CCCCAD features a well-qualified instructional staff and a mathematics laboratory providing personal, computer, and audio-visual tutorial assistance.

**Career Opportunities**

Mathematics majors have many potential career opportunities. They may provide technical assistance in business, engineering science, medicine, and many other fields. In addition, 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
- Consultant
- Operations Researcher
- Statistician
- Teacher

**AS Core Curriculum** **45 credit hours**

See pages 44-45.

**Recommended Electives** **12 credit hours**

MATH 1370	Introduction to the History of Mathematics	3
MATH 2305	Discrete Mathematics	3
MATH 2312	Pre-Calculus for Mathematics and Science	3
MATH 2318	Linear Algebra	3
MATH 2320	Differential Equations	3
MATH 2389	Academic Co-op Mathematics	3
MATH 2413	Calculus I	4
MATH 2414	Calculus II	4
MATH 2415	Calculus III	4
ENGL 2311	Technical Writing	3
ENGL 23xx	Any Literature course	3
PHIL 2303	Introduction to Logic	3

**PHYSICAL EDUCATION**

60 credit hours

**Program Coordinator:**

Sherry Frazier . . . . .CPC-E221 . . . . .972.548.6887

**Academic Advisor:**

Audrey Newsome . . . . .SCC-G104 . . . . .972.881.5782

The Associate of Science degree provides general academic courses and electives that enable students who intend to major in physical education and health to transfer to a college or university. Because of the various transfer requirements of different colleges and universities, and to ensure enrollment in appropriate courses, students should consult with a CCCCAD advisor and the college or university that they plan to attend.

Students may earn an Associate of Science degree with an emphasis in physical education. The degree program emphasizes the inter-relatedness of several fields of study. Physical skills and knowledge are acquired through the physical education activity and theory classes.

NOTE: The second digit in a course number indicates the credit hours for that course.

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.

- Aerobic Instructor
- Athletic Director
- Athletic Trainer
- Coach
- Fitness Center Instructor
- Personal Trainer
- Recreation Coordinator
- Sports Administrator
- Sports Medicine
- Teacher

### AS Core Curriculum 45 credit hours

See pages 44-45.

### Recommended Electives 12 credit hours

PHED 1301	Foundations of Sport and Physical Activity . . . .3
PHED 1304	Personal Health . . . . .3
PHED 1338	Concepts of Physical Fitness and Wellness . . . .3
PHED 2389	Academic Co-op Physical Education . . . . .3
PHED/DANC	Any Activity course . . . . .1
BIOL 2401	Anatomy and Physiology I . . . . .4
BIOL 2402	Anatomy and Physiology II . . . . .4
PSYC 2301	General Psychology . . . . .3

## PHYSICS

60 credit hours

### Program Coordinator:

Mike Broyles . . . . .SCC-J139 . . . . .972.881.5882

### Academic Advisors:

Tori Hoffman . . . . .SCC-G103 . . . . .972.881.5783

Windy Pitcock . . . . .SCC-G103 . . . . .972.881.5782

The Associate of Science degree provides general academic courses and electives that enable students who intend to major in physics to transfer to a college or university. Because of the various transfer requirements of different colleges and universities, and to ensure enrollment in appropriate courses, students should consult with a CCCCD advisor and the college or university that they plan to attend.

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. Knowledge of physics provides a strong background for careers in science, engineering, computer technology, or education.

The Associate of Science degree with an emphasis in physics prepares the student to pursue university studies leading to a bachelor's degree. The basic AS program, at the general physics level, prepares students 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 college or university should check with the specific degree plan requirements of their intended major.

### Degree Requirements

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. Students 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

### AS Core Curriculum 45 credit hours

See pages 44-45.

#### General Physics Level

Students seeking degrees in biology or pre-medicine should select general physics courses.

#### University Physics Level

Students seeking advanced degrees in science and engineering fields should select advanced levels of physics and mathematics courses (such as the courses listed below) for the AS degree.

NOTE: The second digit in a course number indicates the credit hours for that course.

PHYS 2425	University Physics I
PHYS 2426	University Physics II
MATH 2413	Calculus I
MATH 2414	Calculus II

<b>Recommended Electives</b>		<b>12 credit hours</b>
PHYS 1411	Elementary Astronomy	4
PHYS 2389	Academic Co-op Physics	3
CHEM 1411	General Chemistry I	4
CHEM 1412	General Chemistry II	4
ENGL 2311	Technical Writing	3
MATH 2312	Pre-Calculus for Mathematics and Science	3
MATH 2318	Linear Algebra	3
MATH 2320	Differential Equations	3
MATH 2415	Calculus III	4

**PRE-PROFESSIONAL PROGRAMS  
FOR TRANSFER STUDENTS**

Professional schools, such as architecture, business, chiropractic, dental, engineering, law, medicine, pharmacy, and veterinary medicine require varying amounts of undergraduate preparation. Many of the required courses at the freshman and sophomore levels are offered at CCCCD. It is the responsibility of students to know the exact requirements for admission to the specific professional school to which they are applying. For assistance, additional information, and specific Texas and out-of-state requirements, consult a CCCCD academic advisor or visit the Transfer Lab.

**CENTER FOR ADVANCED STUDY IN MATHEMATICS  
AND NATURAL SCIENCES**

Collin County Community College has established a preferred curriculum for students preparing to enter professions that require an extensive background in math and natural science. Based at the Spring Creek Campus, the new center includes honors courses in biology, chemistry, geology, physics, and mathematics for students in pre-professional majors.

Courses offered through the center include:

- BIOL 1406, BIOL 1407, BIOL 2401, BIOL 2402, BIOL 2416, BIOL 2420, and BIOL 2470
- CHEM 1411, CHEM 1412, CHEM 2423, and CHEM 2425
- GEOL 1403 and GEOL 1404
- MATH 2413 and MATH 2414
- PHYS 2425 and PHYS 2426

See the course descriptions section in the back of this catalog for complete information on these courses.

Upon successful completion of 18 or more credit hours from the designated courses, the student will receive special recognition

by the college, and a notation will be included on their official CCCCD transcript. The current *Schedule of Classes* will designate the courses that are offered in a particular semester.

Students pursuing the following programs should seriously consider applying for acceptance in the Center for Advanced Study in Mathematics and Natural Sciences.

- Advanced Research in Science
- Geo-Physical Sciences
- Pre-Dental
- Pre-Engineering
- Pre-Medicine
- Pre-Veterinary Medicine

**PRE-ARCHITECTURE**

**Program Coordinator:**

Susan Marshall-Winslow . . . . .PRC H217 . . . . .972.377.1716

CCCCD offers the general education courses commonly required for students entering a baccalaureate degree program leading to careers in architecture, landscape architecture, building construction, and urban and regional planning. Recommended courses include:

<b>Design</b>	<b>3 credit hours</b>
ARTS 1311	
<b>English</b>	<b>6 credit hours</b>
ENGL 1301 and 1302	
<b>Mathematics</b>	<b>8 credit hours</b>
MATH 2413 and 2414	
<b>Physics</b>	<b>8 credit hours</b>
PHYS 1401 and 1402	
<b>Social and Behavioral Science</b>	<b>15 credit hours</b>
GOVT 2301 and 2302	
HIST 1301 and 1302	
PSYC 2301	

**PRE-BUSINESS**

See page 51 for Business Field of Study.

**PRE-CHIROPRACTIC, PRE-DENTAL, PRE-MEDICINE,  
PRE-PHARMACY, PRE-VETERINARY MEDICINE**

**Program Coordinators:**

**Pre-Chiropractic, Pre-Pharmacy, Pre-Veterinary Medicine**  
Mary Weis . . . . .SCC-K244 . . . . .972.881.5725

**Pre-Dental, Pre-Medicine**  
Jean Helgeson . . . . .SCC-J138 . . . . .972.881.5885

CCCCD offers the courses that are most commonly recommended for the first two years of Pre-Chiropractic, Pre-Dental, Pre-Medicine, Pre-Pharmacy, and Pre-Veterinary Medicine

...Continued on Next Page

NOTE: The second digit in a course number indicates the credit hours for that course.

programs at most colleges and universities. These courses provide a basic foundation in medical science and help establish basic clinical reasoning and clinical skills. Recommended courses include:

- Biology** **8-16 credit hours**  
 BIOL 1406 and 1407  
 Two (2) sophomore-level Biology courses
- Chemistry** **8-16 credit hours**  
 CHEM 1411, 1412, 2423, and/or 2425
- English** **6 credit hours**  
 ENGL 1301 and 1302
- Mathematics** **3-14 credit hours**  
 MATH 1316, 1342, 2413, and/or 2414
- Physics** **0-8 credit hours**  
 PHYS 1401, 1402, 2425, and/or 2426
- Social/Behavioral Science** **15 credit hours**  
 GOVT 2301 and 2302  
 HIST 1301 and 1302  
 ANTH 2351, PSYC 2301, or SOCI 1301

Most English, mathematics, and science courses have pre-requisite requirements. See the course descriptions section in the back of this catalog to determine the order in which to take these courses. Some colleges and universities may have different or additional course requirements; therefore, you should visit with a CCCCAD academic advisor to ensure that you take the correct courses for your pre-professional program.

**PRE-EDUCATION**

See page 52 for Education.

**PRE-ENGINEERING**

**Program Coordinator:**

Robert Meeks . . . . .PRC-H218 . . . . .972.377.1713

CCCCD offers the courses that are most commonly recommended for the first two years of Pre-Engineering programs at most colleges and universities. Recommended courses include:

- Chemistry** **4-8 credit hours**  
 CHEM 1411 and/or 1412
- Computer Science** **3 credit hours**  
 COSC 1320 or 1420

- Engineering** **3-12 credit hours**  
 ENGR 1304, 2301, 2302, 2332, and/or 2405
- English** **3-12 credit hours**  
 ENGL 1301, 1302, 2311, and any Literature course
- Mathematics** **3-11 credit hours**  
 MATH 2413, 2414, and/or 2415
- Physics** **8 credit hours**  
 PHYS 2425 and 2426
- Social/Behavioral Sciences** **12-15 credit hours**  
 GOVT 2301 and 2302  
 HIST 1301 and 1302  
 Social/Behavioral Science elective (as required by the college or university to which you plan to transfer)  
 Most English, mathematics, and science courses have pre-requisite requirements. See the course descriptions section in the back of this catalog to determine the order in which to take these courses. Some colleges and universities may have different or additional course requirements; therefore, you should visit with a CCCCAD academic advisor to ensure that you take the correct courses for your pre-engineering program.

**PRE-LAW**

**Program Coordinator:**

Division Office . . . . .PRC-H245 . . . . .972.377.1731

Future Law School students should take courses that emphasize written and oral skills, research into problems facing society, logical reasoning, and business practices. For this occupation, students should consider taking courses in the following discipline areas:

- Accounting
- Business
- Economics
- English
- History
- Humanities
- Philosophy
- Psychology
- Sociology
- Speech

Course selections should always be discussed with a CCCCAD academic advisor to ensure that you take the correct courses for your particular Pre-Law program.

An applicant for admission to a School of Law must have received, or have completed, all requirements for a baccalaureate degree from a college or university of approved standing prior to beginning work in a School of Law. Pre-Law students are encouraged to take the Law School Admission Test (LSAT) during the summer before their senior year.

NOTE: The second digit in a course number indicates the credit hours for that course.





## WORKFORCE EDUCATION PROGRAMS

### ASSOCIATE OF APPLIED SCIENCE DEGREE

The Associate of Applied Science degree (AAS) is awarded upon completion of a prescribed program of study designed to prepare students to enter and compete in the job market. AAS curricula are designed to enable the graduate to enter an occupation with marketable skills, an acceptable level of technical competency, and the ability to communicate effectively.

The AAS degree is awarded to students who meet the specific degree requirements along with the graduation requirements listed on pages 19-20. **The Core Curriculum and the total number of hours required to graduate with an AAS degree vary among the programs\***; however, a minimum of 18 credit hours must be earned in residency at CCCCD.

**\*NOTE:** Child Development, Commercial Music, Computer Networking Technology, Dental Hygiene, Environmental Technology, Fire Science, Interpreter Preparation Program/Deaf, Nursing, Physical Therapist Assistant, Respiratory Care, Semiconductor Manufacturing Technology, and Telecommunications Technology programs at CCCCD have specific core curriculum requirements. Please refer to the respective degree plan for details.

#### AAS CORE CURRICULUM

**English** **3 credit hours**

ENGL 1301 Composition/Rhetoric I

**Speech Communications** **3 credit hours**

*Select one course:*

SPCH 1311 Fundamentals of Speech Communication

SPCH 1315 Public Speaking I

SPCH 1321 Business and Professional Speaking

**Mathematics** **3 credit hours**

*Select one course:*

MATH 1xxx College-level mathematics course

MATH 2xxx College-level mathematics course

*Math requirements may vary from the core curriculum. Check each degree plan.*

*...Continued on Next Page*

**Computer Literacy 3 credit hours**

COSC 1300 Computer Essentials

**Economics 3 credit hours**

*Select one course:*

ECON 1301 Introduction to Economics  
 ECON 2301 Principles of Macroeconomics  
 ECON 2302 Principles of Microeconomics

**Humanities/Fine Arts 3 credit hours**

*Select one course:*

ARTS 1301 Art Appreciation  
 ARTS 1303 Art History I  
 ARTS 1304 Art History II  
 DRAM 1310 Introduction to Theatre  
 HUMA 1301 Introduction to the Humanities  
 HUMA 1302 Cultural Diversity  
 MUSI 1306 Music Appreciation  
 MUSI 2308 Introduction to Music Literature  
 PHIL xxxx Any philosophy course

**Behavioral Science 3 credit hours**

*Select one course:*

PSYC 2301 General Psychology  
 PSYC 2302 Applied Psychology

**Physical Education/Dance 1 credit hour minimum**

*Select one course:*

PHED/DANC Any activity course  
 PHED 1338 Concepts of Physical Fitness and Wellness

**AAS Core Curriculum 22 credit hours minimum**

**CERTIFICATE PROGRAMS**

CCCCD offers certificate programs designed to meet specific employment needs of the community. Students who enroll in certificate programs are generally interested in re-entering the job market after an absence, changing careers, or upgrading job-related skills in order to enhance employment specialization. Although certificates are normally one year in length, the specific number of credit hours varies by program area.

**GLOBALEDGE TECH PREP**

Refer to pages 14 and 43.

**PROGRAM ADVISORY COMMITTEES**

Instructional divisions in each technical program area use advisory committees 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 education institution and the business

community to ensure that graduates are adequately prepared for employment. Members of the advisory committees are selected from related industry, prospective employers, and other knowledgeable community representatives.

**APPLIED GRAPHIC DESIGN TECHNOLOGY**

67 credit hours required to graduate

**Program Coordinator:**

Gaye Cooksey . . . . .SCC-K119 . . . . .972.881.5968

**Academic Advisor:**

Todd Fields . . . . .SCC-G105 . . . . .972.881.5903

The Applied Graphic Design Technology program trains today's artists and designers in the communication medium of the future as well as the present computer-aided communication design.

The digital video program focuses on developing the concept, design, and production skills necessary for creating digital video content by learning how to create storyboards, work with video cameras and lighting, and editing video with current software tools. In the multimedia specialization, students learn to create interactive multimedia content. The animation specialization covers a broad range of skills including concept development, 2D and 3D computer graphics, video/compositing, digital audio and 2D/3D animation. The digital photography specialization combines the study of traditional and digital photography. The illustration specialization prepares students for careers in pictorial illustration, advertising art, and technical/industrial visualization using traditional and digital media. The internet/web design specialization is a quickly evolving field requiring both traditional and cutting-edge skills such as concept development, graphic design, web graphics preparation, HTML/JavaScript, and web animation. The 3D entertainment animation certificate emphasizes 3D animation incorporating high-end 3D software targeted towards the entertainment industry as well as advertising and corporate communication.

Students planning to transfer to a college or university should check with the CCCC academic advisor prior to beginning this program.

**AAS–Applied Graphic Design Technology**

67 credit hours

**FIRST YEAR**

**First Semester**

ARTC 2311 History of Communication Graphics  
 ARTC 1325 Introduction to Computer Graphics - Print  
 ARTC 1327 Typography  
 ARTS 1316 Drawing I  
*ENGL 1301 Composition/Rhetoric I*  
*HUMA 1301 Introduction to the Humanities<sup>1</sup>*

NOTE: Italicized course numbers and titles denote AAS Core Curriculum.

## Second Semester

ARTC 2305 Digital Painting and Imaging  
COSC 1300 *Computer Essentials*  
SPCH 1311 *Fundamentals of Speech Communication*<sup>2</sup>  
ARTC 1305 Basic Graphic Design  
PHED/DANC *Any activity course*<sup>3</sup>  
ARTC 1321 Illustration Techniques

## SECOND YEAR

### First Semester

ARTC 1349 Art Direction I  
MATH 1332 *Contemporary Mathematics*<sup>4</sup>  
ARTS 2356 Photography I  
ARTC 1353 Computer Illustration I  
ARTC 2309 Electronic Pre-press  
ARTC 2313 Computer Production Art II

### Second Semester

ECON 1301 *Introduction to Economics*<sup>5</sup>  
ARTC 2349 Art Direction II  
ARTC 2379 Professional Practices (Capstone)  
PSYC 2302 *Applied Psychology*<sup>6</sup>  
Elective\*

<sup>1</sup> May substitute ARTS 1301, ARTS 1303, ARTS 1304, DRAM 1310, HUMA 1302, MUSI 1306, MUSI 2308, or any PHIL course

<sup>2</sup> May substitute SPCH 1315 or SPCH 1321

<sup>3</sup> May substitute PHED 1338

<sup>4</sup> May substitute a higher-level MATH course; MATH 1314 is recommended for transfer students

<sup>5</sup> May substitute ECON 2301 or ECON 2302

<sup>6</sup> May substitute PSYC 2301

\* Electives (3 credit hours): ARTC 1353, ARTS 2311, ARTS 2316, ARTS 1317, ARTS 2333, or GRPH 1380

## Digital Video Specialization

63 credit hours

### FIRST YEAR

#### First Semester

ARTC 1325 Introduction to Computer Graphics - Print  
ARTC 2311 History of Communication Graphics  
IMED 1211 Storyboard  
MATH 1332 *Contemporary Mathematics*<sup>1</sup>  
SPCH 1311 *Fundamentals of Speech Communication*<sup>2</sup>

#### Second Semester

ARTC 2305 Digital Printing and Imaging  
COSC 1300 *Computer Essentials*  
ECON 1301 *Introduction to Economics*<sup>3</sup>  
PHED/DANC *Any activity course*<sup>4</sup>  
PSYC 2301 *General Psychology*<sup>5</sup>  
Elective\*

## SECOND YEAR

### First Semester

ENGL 1301 *Composition/Rhetoric I*  
HUMA 1301 *Introduction to the Humanities*<sup>6</sup>  
MUSC 2351 Audio for Video  
Elective\*  
Elective\*

### Second Semester

IMED 1351 Digital Video  
IMED 2313 Project Analysis and Design  
Elective\*  
Elective\*

### Summer

ARTC 2379 Professional Practices (Capstone)  
IMED 2341 Advanced Digital Video

<sup>1</sup> May substitute a higher-level MATH course; MATH 1314 is recommended for transfer students

<sup>2</sup> May substitute SPCH 1315 or SPCH 1321

<sup>3</sup> May substitute ECON 2301 or ECON 2302

<sup>4</sup> May substitute PHED 1338

<sup>5</sup> May substitute PSYC 2302

<sup>6</sup> May substitute ARTS 1301, ARTS 1303, ARTS 1304, DRAM 1310, HUMA 1302, MUSI 1306, MUSI 2308, or any PHIL course

\* Electives (15 credit hours): ARTS 2356, COMM 1316, DRAM 1341, DRAM 1342, DRAM 2366, DRAM 2367, DRAM 2371, GRPH 1380, or any other ARTC course approved by the program coordinator.

## Multimedia Specialization

66 credit hours

### FIRST YEAR

#### First Semester

ARTC 1325 Introduction to Computer Graphics - Print  
ARTC 2311 History of Communication Graphics  
ENGL 1301 *Composition/Rhetoric I*  
IMED 1211 Storyboard  
SPCH 1311 *Fundamentals of Speech Communication*<sup>1</sup>

#### Second Semester

ARTC 1301 Basic Animation  
ARTC 2305 Digital Painting and Imaging  
ARTS 1316 Drawing I  
COSC 1300 *Computer Essentials*  
MATH 1332 *Contemporary Mathematics*<sup>2</sup>  
PHED/DANC *Any activity course*<sup>3</sup>

NOTE: The second digit in a course number indicates the credit hours for that course.

## SECOND YEAR

### First Semester

ARTC 1345 3-D Modeling and Rendering

*ECON 1301 Introduction to Economics<sup>4</sup>*

IMED 1305 Multimedia Authoring I

IMED 2301 Instructional Design

MUSC 2351 Audio for Video

### Second Semester

ARTC 1353 Computer Illustration I

ARTS 1317 Drawing II

*HUMA 1301 Introduction to the Humanities<sup>5</sup>*

*PSYC 2301 General Psychology<sup>6</sup>*

Elective\*

### Summer

ARTC 2379 Professional Practices (Capstone)

IMED 2313 Project Analysis and Design

<sup>1</sup> May substitute SPCH 1315 or SPCH 1321

<sup>2</sup> May substitute a higher-level MATH course; MATH 1314 is recommended for transfer students

<sup>3</sup> May substitute PHED 1338

<sup>4</sup> May substitute ECON 2301 or ECON 2302

<sup>5</sup> May substitute ARTS 1301, ARTS 1303, ARTS 1304, DRAM 1310, HUMA 1302, MUSI 1306, MUSI 2308, or any PHIL course

<sup>6</sup> May substitute PSYC 2302

\* Electives (3 credit hours): Any other ARTC course approved by the program coordinator or GRPH 1380

## CERTIFICATES

### Applied Graphic Design Technology Certificate

33 credit hours

#### FIRST YEAR

##### First Semester

ARTC 1325 Introduction to Computer Graphics - Print

ARTC 2311 History of Communication Graphics

ARTS 1316 Drawing I

##### Second Semester

ARTC 1321 Illustration Techniques

ARTC 1327 Typography

ARTC 2305 Digital Painting and Imaging

#### SECOND YEAR

##### First Semester

ARTC 1305 Basic Graphic Design

ARTC 1353 Computer Illustration I

ARTC 2309 Electronic Pre-press

##### Second Semester

ARTC 2349 Art Direction II

ARTC 2379 Professional Practices (Capstone)

### Animation Specialization

41 credit hours

#### FIRST YEAR

##### First Semester

ARTC 2311 History of Communication Graphics

ARTC 1325 Introduction to Computer Graphics - Print

IMED 1211 Storyboard

##### Second Semester

ARTC 2305 Digital Painting and Imaging

IMED 1351 Digital Video

ARTC 1345 3-D Modeling and Rendering

##### Summer

ARTC 1301 Basic Animation

MUSC 2351 Audio for Video

#### SECOND YEAR

##### First Semester

ARTC 2371 Advanced 2D Computer Animation

IMED 2313 Project Analysis and Design

ARTC 1341 3-D Animation I (Cinema 4D SL software)

IMED 2341 Advanced Digital Video

##### Second Semester

ARTC 2341 3-D Animation II (Cinema 4D SL software)

ARTC 2379 Professional Practices (Capstone)

### Digital Photography Specialization

38 credit hours

#### FIRST YEAR

##### First Semester

ARTC 2311 History of Communication Graphics

ARTC 1325 Introduction to Computer Graphics - Print

IMED 1211 Storyboard

ARTS 2356 Photography I

##### Second Semester

ARTS 2357 Photography II

ARTS 2371 Digital Photography I

ARTC 1305 Basic Graphic Design

#### SECOND YEAR

##### First Semester

ARTS 2371 Color Photography

ARTS 2371 Digital Photography II

ARTC 1301 Basic Animation

##### Second Semester

COMM 1317 Applied Photography

ARTC 2349 Art Direction II

ARTC 2379 Professional Practices (Capstone)

NOTE: Italicized course numbers and titles denote AAS Core Curriculum.



## Digital Video Specialization

29 credit hours

### FIRST YEAR

#### First Semester

ARTC 1325 Introduction to Computer Graphics - Print  
DRAM 2366 History of Film Making I  
MUSC 2351 Audio for Video

#### Second Semester

ARTC 2305 Digital Painting and Imaging  
IMED 1211 Storyboard  
IMED 1351 Digital Video  
ARTC 2311 History of Communication Graphics

#### Summer

IMED 2341 Advanced Digital Video  
IMED 2313 Project Analysis and Design  
ARTC 2379 Professional Practices (Capstone)

## Illustration Specialization

39 credit hours

### FIRST YEAR

#### First Semester

ARTC 2311 History of Communication Graphics  
ARTC 1325 Introduction to Computer Graphics - Print  
ARTS 1316 Drawing I

#### Second Semester

ARTC 1305 Basic Graphic Design  
ARTC 2305 Digital Painting and Imaging  
ARTC 1321 Illustration Techniques

### SECOND YEAR

#### First Semester

ARTC 1353 Computer Illustration I  
ARTS 2323 Life Drawing I  
ARTC 2331 Illustration Concepts  
ARTC 1345 3-D Modeling and Rendering

#### Second Semester

ARTC 2349 Art Direction II  
ARTC 1391 Special Topics: Advanced 3-D Modeling  
and Rendering  
ARTC 2379 Professional Practices (Capstone)

## Internet/Web Design Specialization

41 credit hours

### FIRST YEAR

#### First Semester

ARTC 2311 History of Communication Graphics  
ARTC 1325 Introduction to Computer Graphics - Print  
IMED 2301 Instructional Design

#### Second Semester

ARTC 2305 Digital Painting and Imaging  
IMED 1211 Storyboard  
IMED 1316 Web Page Design I

### SECOND YEAR

#### First Semester

ARTC 1353 Computer Illustration I  
ARTC 2378 Animation on the Web  
MUSC 2351 Audio for Video  
IMED 2315 Web Page Design II

#### Second Semester

IMED 2313 Project Analysis and Design  
IMED 2341 Advanced Digital Video  
IMED 2349 Internet Communications  
ARTC 2379 Professional Practices (Capstone)

## Multimedia Specialization

41 credit hours

### FIRST YEAR

#### First Semester

ARTC 1325 Introduction to Computer Graphics - Print  
ARTC 2311 History of Communication Graphics  
IMED 1211 Storyboard  
IMED 2301 Instructional Design

#### Second Semester

ARTC 1301 Basic Animation  
ARTC 1345 3-D Modeling and Rendering  
ARTC 2305 Digital Painting and Imaging

### SECOND YEAR

#### First Semester

IMED 1305 Multimedia Authoring I  
ARTC 1327 Typography  
MUSC 2351 Audio for Video

#### Second Semester

ARTC 1341 3-D Animation I  
IMED 2313 Project Analysis and Design  
ARTC 2379 Professional Practices (Capstone)  
IMED 2341 Advanced Digital Video

NOTE: The second digit in a course number indicates the credit hours for that course.

### 3D Entertainment Animation Certificate

41 credit hours

#### FIRST YEAR

##### First Semester

ARTC 1325 Introduction to Computer Graphics - Print  
ARTC 2311 History of Communication Graphics  
IMED 1211 Storyboard

##### Second Semester

ARTC 1341 3-D Animation I (Maya software)  
ARTC 1353 Computer Illustration I  
ARTC 2305 Digital Painting and Imaging

#### SECOND YEAR

##### First Semester

ARTC 2341 3-D Animation II (Maya software)  
FLMC 1391 Special Topics: Character Animation  
and Rendering  
IMED 1351 Digital Video

##### Second Semester

FLMC 1392 Special Topics: Advanced 3-D Animation  
IMED 2301 Instructional Design  
IMED 2341 Advanced Digital Video

##### Summer

ARTC 2379 Professional Practices (Capstone)  
FLMC 1392 Special Topics: 3-D Animation Portfolio

## BIOTECHNOLOGY

64 credit hours required to graduate

#### Program Coordinator:

Bridgette Kirkpatrick .....PRC-F129.....972.377.1612

#### Academic Advisor:

Windy Pitcock .....SCC-G103.....972.881.5782

CCCCD's Biotechnology program prepares students for entry-level positions in biological research and industrial laboratories. Returning students can also benefit from the new methods and technologies related to agriculture, medicine, pharmaceuticals, and other applications.

Students planning to transfer to a college or university should check with the CCCC academic advisor prior to beginning this program.

#### Career Opportunities

Biotechnology laboratory positions are available at colleges, universities, medical schools, and pharmaceutical and industrial companies. Additionally, other new occupations are rapidly developing in Texas and other parts of the nation. Positions currently within the biotechnology field include:

- Biotechnology Production/QC Assistant/Technician
- Biotechnology Research Assistant/Technician
- Environmental Technical Work (Waste Products, Pollutants)
- Federal Government Technical Work in Agriculture, Defense, and Interior Departments
- Forensic Laboratory Assistant/Technician
- Laboratory Management and Support Positions
- Medical Research Assistant/Technician
- Microbiological Research Assistant/Technician
- Pharmaceutical Research Assistant/Technician
- Technical Work in Manufacturing, Chemical, and Food Processing Industries

### AAS-Biotechnology

64 credit hours

#### FIRST YEAR

##### First Semester

*BIOL 1406 General Biology I*  
*BITC 1311 Introduction to Biotechnology*  
*CHEM 1405 Introduction to Chemistry I<sup>1</sup>*  
*ENGL 1301 Composition/Rhetoric I*  
*MATH 1314 College Algebra<sup>2</sup>*

##### Second Semester

*BIOL 1407 General Biology II<sup>3</sup>*  
*BITC 1402 Biotechnology Laboratory Methods and Techniques*  
*CHEM 1412 General Chemistry II<sup>4</sup>*  
*COSC 1300 Computer Essentials*

##### Summer

*PHED/DANC Any activity course<sup>5</sup>*  
Elective\*

#### SECOND YEAR

##### First Semester

*BIOL 2420 Microbiology<sup>6</sup>*  
*BITC 1401 Biotechnology Laboratory Instrumentation*  
*BITC 2431 Cell Culture Techniques*  
*PSYC 2301 General Psychology*

##### Second Semester

*BITC 1391 Special Topics in Biological Technology/Technician*  
*BITC 2387 Internship - Biological Technology/  
Technician (Capstone)*  
*BITC 2401 Molecular Biology Techniques*  
*SPCH 1311 Fundamentals of Speech Communication*

<sup>1</sup> May substitute CHEM 1411

<sup>2</sup> May substitute MATH 1342

<sup>3</sup> May substitute BIOL 1411, BIOL 1470, BIOL 1471, or BIOL 2401

<sup>4</sup> May substitute CHEM 1419

NOTE: Italicized course numbers and titles denote AAS Core Curriculum.

<sup>5</sup> May substitute PHED 1338

<sup>6</sup> Prerequisites waived for students pursuing an AAS in Biotechnology.

\* Electives (3 credit hours): BITC 2386, ENGL 2311, ENVR 1401, or HALT 1401

*NOTE: A course may not be counted as both an elective and a biology requirement.*

## Biotechnology Certificate

29 credit hours

### FIRST YEAR

#### First Semester

BIOL 1406 General Biology I

BITC 1311 Introduction to Biotechnology

CHEM 1405 Introduction to Chemistry I<sup>1</sup>

Elective\*

#### Second Semester

BIOL 2420 Microbiology<sup>2</sup>

BITC 1402 Biotechnology Laboratory Methods and Techniques

BITC 2386 Internship - Biological Technology/  
Technician (Capstone)

CHEM 1412 General Chemistry II<sup>3</sup>

<sup>1</sup> May substitute CHEM 1411

<sup>2</sup> Prerequisites waived for students pursuing a Biotechnology Certificate

<sup>3</sup> May substitute CHEM 1419

\* Electives (3 credit hours): BIOL 1471, COSC 1300, ENGL 2311, ENVR 1401, or HALT 1401

*NOTE: A course may not be counted as both an elective and a biology requirement.*

## CHILD DEVELOPMENT

Also a Tech Prep Program

65 credit hours required to graduate

### Program Coordinator:

Elaine Boski-Wilkinson . . .SCC-B132 . . . . .972.881.5967

### Academic Advisor:

Carie Andrews . . . . .SCC-G106 . . . . .972.881.5773

The Child Development degree and certificate programs are designed to prepare individuals for entry-level positions working with young children and their families. The coursework can also be applicable as in-service training for teachers, administrators, nannies, and family day home providers. A developmental approach is emphasized which promotes optimal physical, social, emotional, and cognitive growth of children. Students learn management skills that allow them to provide quality programs in safe, nurturing environments.

The Child Development Associate (CDA) program provides performance-based training, assessment, and credentialing of childcare professionals who work with children from birth through age five. These caregivers demonstrate their ability to nurture children's physical, social, emotional, and intellectual growth in a child development framework.

Students planning to transfer to a college or university should check with the CCCCD academic advisor prior to beginning this program.

### NOTES:

- "TECA" is the prefix for transfer courses that were formerly "CDEC".
- After completing TECA 1311, students are required to complete a one-hour lab component with each TECA course.

### Program Requirements:

To participate in the Child Development Lab School and receive credit for the lab component of courses, the following requirements must be met:

1. Enroll in a CCCCD child development course.
2. Within the first week of your first child development course, provide a copy of acceptable tuberculosis test results. Continuing students must submit acceptable tuberculosis results every two years.
3. Complete and sign a student record form as a contract to ensure the following:
  - Verification that you have read and agree to abide by the Texas Minimum Standards for day care centers
  - Verification that you have read and agree to follow the laboratory student guidelines
  - Information provided to a criminal history check by the Texas Department of Protective and Regulatory Services
  - Confirmation that confidentiality and professional discretion will be observed at all times
  - Personal release for video-taping for instructional purposesOur records should always contain current personal information. It is the student's responsibility to keep this information current.

### Career Opportunities

The Child Development degree and certificates are designed to provide the necessary preparation to work as a day care director, teacher's aide, director/assistant director or manager of children's programs, or an educational director. The skills acquired will be directly applicable in a variety of facilities, including:

- Before and After School Programs
- Child Care Centers
- Church-sponsored Child Care
- Community Center Programs

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NOTE: The second digit in a course number indicates the credit hours for that course.

- Corporate-sponsored Child care
- Employer-sponsored Child Care
- Family Day Homes
- Hospital-sponsored Child Care
- Infant/Toddler Programs
- In-Home Care Giver or Nanny
- Parent and Child Study Programs
- Preschool Programs
- Public School Paraprofessional/Teacher's Aide

## AAS – Child Development

65 credit hours

### FIRST YEAR

#### First Semester

- ENGL 1301 Composition/Rhetoric I*  
 TECA 1354 Child Growth and Development<sup>1</sup>  
 TECA 1311 Introduction to Early Childhood Education<sup>1</sup>  
 CDEC 1323 Observation and Assessment  
 CDEC 1319 Child Guidance

#### Second Semester

- SPCH 1311 Fundamentals of Speech Communication*<sup>2</sup>  
*PSYC 2302 Applied Psychology*<sup>3</sup>  
*PHED/DANC Any activity course*<sup>4</sup>  
 CDEC 2326 Administration of Programs for Children I  
 TECA 1303 Family and the Community<sup>1</sup>  
 Elective\*

### SECOND YEAR

#### First Semester

- COSC 1300 Computer Essentials*  
 CDEC 1370 Prevention of Child Abuse  
 TECA 1318 Nutrition, Health, and Safety  
 CDEC 2328 Administration of Programs for Children II  
 CDEC 1313 Curriculum Resources for Early Childhood Programs

Elective\*

#### Second Semester

- MATH 1332 Contemporary Mathematics*<sup>5</sup>  
*HUMA 1301 Introduction to the Humanities*<sup>6</sup>  
*ECON 1301 Introduction to Economics*<sup>7</sup>  
 CDEC 2336 Administration of Programs for Children III  
 CDEC 2166 Practicum - Child Development and Early Childhood - Provider/Assistant (Capstone)

Elective\*

<sup>1</sup> Tech Prep courses which may have been completed in high school.

<sup>2</sup> May substitute SPCH 1315 or SPCH 1321

<sup>3</sup> May substitute PSYC 2301

<sup>4</sup> May substitute PHED 1338

<sup>5</sup> May substitute MATH 1324 or MATH 1314 - recommended for transfer students.

<sup>6</sup> May substitute ARTS 1301, ARTS 1303, ARTS 1304, DRAM 1310, HUMA 1302, MUSI 1306, MUSI 2308, or any PHIL course.

<sup>7</sup> May substitute ECON 2301 or ECON 2302

\* Electives (select 9 credit hours): CDEC 1223, CDEC 1315, CDEC 1317, CDEC 1327, CDEC 1330, CDEC 1334, CDEC 1342, CDEC 1357, CDEC 1358, CDEC 1359, CDEC 1392, CDEC 1394, CDEC 1396, CDEC 2321, CDEC 2322, CDEC 2324, CDEC 2340, or CDEC 2385

## CERTIFICATES

### Child Development Associate Certificate

16 credit hours

#### FIRST YEAR

##### First Semester

- CDEC 1317 Child Development Associate Training I  
 CDEC 2166 Practicum - Child Development and Early Childhood - Provider/Assistant (Capstone)  
 CDEC 2322 Child Development Associate Training II  
 CDEC 2324 Child Development Associate Training III  
 TECA 1318 Nutrition, Health, and Safety  
 TECA 1354 Child Growth and Development<sup>1</sup>

<sup>1</sup> Tech Prep courses which may have been completed in high school.

### Child Development Certificate

28 credit hours

#### FIRST YEAR

##### First Semester

- CDEC 1313 Curriculum Resources for Early Childhood Programs  
 CDEC 1323 Observation and Assessment  
 TECA 1311 Introduction to Early Childhood Education<sup>1</sup>  
 TECA 1318 Nutrition, Health, and Safety  
 TECA 1354 Child Growth and Development

##### Second Semester

- CDEC 1319 Child Guidance  
 CDEC 1335 Early Childhood Development: 3-5 years  
 CDEC 1359 Children with Special Needs  
 CDEC 2166 Practicum - Child Development and Early Childhood - Provider/Assistant (Capstone)  
 TECA 1303 Family and the Community<sup>1</sup>

<sup>1</sup> Tech Prep courses which may have been completed in high school.



### Early Childhood Administrator Specialization

29 credit hours

#### FIRST YEAR

##### First Semester

- CDEC 1323 Observation and Assessment
- CDEC 2326 Administration of Programs for Children I
- TECA 1311 Introduction to Early Childhood Education<sup>1</sup>
- TECA 1318 Nutrition, Health, and Safety
- TECA 1354 Child Growth and Development<sup>1</sup>

##### Second Semester

- CDEC 1370 Prevention of Child Abuse
- CDEC 2166 Practicum - Child Development and Early Childhood - Provider/Assistant (Capstone)
- CDEC 2328 Administration of Programs for Children II
- CDEC 2336 Administration of Programs for Children III
- TECA 1303 Family and the Community<sup>1</sup>

<sup>1</sup> Tech Prep courses which may have been completed in high school.

### Early Childhood Special Educator Specialization

28 credit hours

#### FIRST YEAR

##### First Semester

- CDEC 1319 Child Guidance
- CDEC 1323 Observation and Assessment
- CDEC 1359 Children with Special Needs
- TECA 1311 Introduction to Early Childhood Education<sup>1</sup>
- TECA 1354 Child Growth and Development<sup>1</sup>

##### Second Semester

- CDEC 1340 Instructional Techniques for Children with Special Needs
- CDEC 1370 Prevention of Child Abuse
- CDEC 2166 Practicum - Child Development and Early Childhood - Provider/Assistant (Capstone)
- TECA 1303 Family and the Community<sup>1</sup>
- TECA 1318 Nutrition, Health, and Safety

<sup>1</sup> Tech Prep courses which may have been completed in high school.

### Infant and Toddler Educator Specialization

28 credit hours

#### FIRST YEAR

##### First Semester

- CDEC 1321 The Infant and Toddler
- CDEC 1323 Observation and Assessment
- CDEC 1370 Prevention of Child Abuse
- TECA 1303 Family and the Community<sup>1</sup>
- TECA 1311 Introduction to Early Childhood Education<sup>1</sup>

### Second Semester

- CDEC 1339 Early Childhood Development: 0-3 Years
- CDEC 1359 Children with Special Needs
- CDEC 2166 Practicum - Child Development and Early Childhood - Provider/Assistant (Capstone)
- TECA 1318 Nutrition, Health, and Safety
- TECA 1354 Child Growth and Development<sup>1</sup>

<sup>1</sup> Tech Prep courses which may have been completed in high school.

### School-Age Educator Specialization

28 credit hours

#### FIRST YEAR

##### First Semester

- CDEC 1334 School-Age Activities and Group Dynamics
- CDEC 2341 The School Age Child
- TECA 1311 Introduction to Early Childhood Education<sup>1</sup>
- TECA 1318 Nutrition, Health, and Safety
- TECA 1354 Child Growth and Development<sup>1</sup>

##### Second Semester

- CDEC 1319 Child Guidance
- CDEC 1330 Growth and Development: 6 - 14 Years
- CDEC 1359 Children with Special Needs
- CDEC 2166 Practicum - Child Development and Early Childhood - Provider/Assistant (Capstone)
- TECA 1303 Family and the Community<sup>1</sup>

<sup>1</sup> Tech Prep courses which may have been completed in high school.

## COMPUTER-AIDED DRAFTING AND DESIGN

Also a Tech Prep Program

64 credit hours required to graduate

#### Program Coordinator:

Susan Marshall-Winslow . . .PRC-H217 . . . . .972.377.1716

#### Academic Advisor:

Susan Nethery . . . . .PRC-F142 . . . . .972.377.1779

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

Tech Prep students who completed college-level courses in Computer-Aided Drafting and Design while in high school may elect to receive college credit by contacting a CCCCD academic advisor after they have completed 12 credit hours. A petition for

...Continued on Next Page

NOTE: The second digit in a course number indicates the credit hours for that course.

Tech Prep credit should be completed as soon as possible upon admission to CCCC.

Students planning to transfer to a college or university should check with the CCCC academic advisor prior to beginning this program.

### Career Opportunities

Enjoy a profitable career in a modern business environment. Expanding job market possibilities related to drafting and design are available in:

- Aircraft Industry
- Architectural Firms
- Computer Centers
- Electronics Firms
- Governmental Agencies
- Manufacturing Firms
- Printed Circuit Board Design Companies
- Research Organizations
- Semiconductor Manufacturing Firms
- Telecommunications Industry

### AAS-Computer-Aided Drafting and Design

64 credit hours

#### FIRST YEAR

##### First Semester

*DFTG 1309 Basic Computer-Aided Drafting<sup>1,2</sup>*

*ENGL 1301 Composition/Rhetoric I*

*MATH 1314 College Algebra*

*PHYS 1401 General Physics I*

*SPCH 1311 Fundamentals of Speech Communication<sup>3</sup>*

##### Second Semester

*DFTG 1305 Technical Drafting<sup>1</sup>*

*DFTG 1352 Intermediate Computer-Aided Drafting<sup>1</sup>*

*ECON 1301 Introduction to Economics<sup>4</sup>*

*MATH 1316 Trigonometry*

*PHYS 1402 General Physics II*

#### SECOND YEAR

##### First Semester

*CETT 1409 DC-AC Circuits*

*DFTG 2332 Advanced Computer-Aided Drafting*

*HUMA 1301 Introduction to the Humanities<sup>5</sup>*

*PHED/DANC Any activity course<sup>6</sup>*

Elective\*

Elective\*

### Second Semester

*DFTG 2336 Computer-Aided Drafting Programming*

*DFTG 2381 Cooperative Education - Drafting (Capstone)*

*PSYC 2302 Applied Psychology<sup>7</sup>*

Elective\*

Elective\*

<sup>1</sup> Tech Prep course which may have been completed in high school.

<sup>2</sup> May be substituted for COSC 1300

<sup>3</sup> May substitute SPCH 1315 or SPCH 1321

<sup>4</sup> May substitute ECON 2301 or ECON 2302

<sup>5</sup> May substitute ARTS 1301, ARTS 1303, ARTS 1304, DRAM 1310, HUMA 1302, MUSI 1306, MUSI 2308, or any PHIL course

<sup>6</sup> May substitute PHED 1338

<sup>7</sup> May substitute PSYC 2301

\* Electives (12 credit hours): BMGT 2331, BUSI 1301,

BUSI 2301, DFTG 1317, DFTG 1354, DFTG 1380, DFTG 1391,

DFTG 2312, DFTG 2340, DFTG 2352, or ENGL 2311

### AAS-Electronic Design

72 credit hours

#### FIRST YEAR

##### First Semester

*CETT 1325 Digital Fundamentals*

*CETT 1403 DC Circuits*

*DFTG 1309 Basic Computer-Aided Drafting<sup>1,2</sup>*

*DFTG 1358 Electrical/Electronics Drafting*

*HUMA 1301 Introduction to the Humanities<sup>3</sup>*

*MATH 1314 College Algebra*

##### Second Semester

*CETT 1405 AC Circuits<sup>1</sup>*

*CETT 1421 Electronic Fabrication*

*CETT 1429 Solid State Devices*

*DFTG 2304 Printed Circuit Board Design*

*MATH 1316 Trigonometry*

Elective\*

#### SECOND YEAR

##### First Semester

*CETT 1457 Linear Integrated Circuits*

*DFTG 2356 Advanced Printed Circuit Board Design*

*ECON 1301 Introduction to Economics<sup>4</sup>*

*PHED/DANC Any activity course<sup>5</sup>*

*SPCH 1311 Fundamentals of Speech Communication<sup>6</sup>*

Elective\*

NOTE: Italicized course numbers and titles denote AAS Core Curriculum.

## Second Semester

DFTG 2381 Cooperative Education - Drafting (Capstone)

ENGL 1301 *Composition/Rhetoric I*

PSYC 2302 *Applied Psychology*<sup>7</sup>

Elective\*

Elective\*

<sup>1</sup> Tech Prep course which may have been completed in high school.

<sup>2</sup> May be substituted for COSC 1300

<sup>3</sup> May substitute ARTS 1301, ARTS 1303, ARTS 1304, DRAM 1310, HUMA 1302, MUSI 1306, MUSI 2308, or any PHIL course

<sup>4</sup> May substitute ECON 2301 or ECON 2302

<sup>5</sup> May substitute PHED 1338

<sup>6</sup> May substitute SPCH 1315 or SPCH 1321

<sup>7</sup> May substitute PSYC 2301

\* Electives (a minimum of 12 credit hours): BMGT 2331, BUSI 1301, BUSI 2301, DFTG 1171, DFTG 1172, DFTG 1305, DFTG 1352, DFTG 1394, DFTG 2332, DFTG 2336, or ENGL 2311

## CERTIFICATES

### Computer-Aided Drafting and Design Certificate

30 credit hours

#### FIRST YEAR

##### First Semester

DFTG 1305 Technical Drafting<sup>1</sup>

##### Second Semester

DFTG 1309 Basic Computer-Aided Drafting<sup>1</sup>

DFTG 1352 Intermediate Computer-Aided Drafting<sup>1</sup>

#### SECOND YEAR

##### First Semester

DFTG 2312 Technical Illustration

DFTG 2332 Advanced Computer-Aided Drafting

Elective\*

##### Second Semester

DFTG 1391 Special Topics in Drafting

DFTG 2336 Computer-Aided Drafting Programming (Capstone)

Elective\*

Elective\*

<sup>1</sup> Tech Prep course which may have been completed in high school.

\* Electives (9 credit hours): DFTG 1317, DFTG 1321, DFTG 1348, DFTG 1354, DFTG 1356, DFTG 1380, DFTG 2310, DFTG 2340, DFTG 2350, DFTG 2352, or DFTG 2381

## AutoCAD Specialization

15 credit hours

#### FIRST YEAR

##### First Semester

DFTG 1309 Basic Computer-Aided Drafting

##### Second Semester

DFTG 1352 Intermediate Computer-Aided Drafting

#### SECOND YEAR

##### First Semester

DFTG 1391 Special Topics in Drafting

DFTG 2332 Advanced Computer-Aided Drafting

DFTG 2336 Computer-Aided Drafting Programming (Capstone)

## Electronic Design Automation Certificate

38 credit hours

#### FIRST YEAR

##### First Semester

CETT 1325 Digital Fundamentals

CETT 1403 DC Circuits

DFTG 1309 Basic Computer-Aided Drafting<sup>1</sup>

DFTG 1358 Electrical/Electronics Drafting

##### Second Semester

CETT 1405 AC Circuits<sup>1</sup>

CETT 1421 Electronic Fabrication

CETT 1429 Solid State Devices

DFTG 2304 Printed Circuit Board Design

#### SECOND YEAR

##### First Semester

CETT 1457 Linear Integrated Circuits

DFTG 1394 Special Topics in Electrical/Electronics Drafting

DFTG 2356 Advanced Printed Circuit Board Design (Capstone)

<sup>1</sup> Tech Prep course which may have been completed in high school.

## Enhanced Skills Certificate

9 credit hours

The Enhanced Skills Certificate in Computer-Aided Drafting and Design provides additional training in specific job skills that supplement those acquired within the AAS degree program. Students will have an opportunity to acquire those employment-related skills while completing the AAS degree requirements or subsequent to earning their AAS in Computer-Aided Drafting and Design.

#### FIRST YEAR

##### First Semester

DFTG 1391 Special Topics in Drafting - 3D Studio Max

DFTG 2312 Technical Illustration

DFTG 2340 Solid Modeling/Design Pro/Engineer

NOTE: The second digit in a course number indicates the credit hours for that course.

## COMPUTER INFORMATION SYSTEMS

64 credit hours required to graduate

### Program Coordinator:

Mary Emerson . . . . .PRC-H111 . . . . .972.377.1687

### Academic Advisor:

Terrence Brennan . . . . .PRC-F143 . . . . .972.377.1778

Computer Information Systems is an exciting field that presents many opportunities for a student who is proficient in both applications and business programming. The skills acquired in this program will enable the student to solve problems that are encountered when working in this ever-changing and growing occupation.

This degree program offers specializations in business programming, computer systems, and microcomputer applications. Areas of study include business applications, business programming, management skills, microcomputer applications, financial skills, and technical skills.

Students in the Computer Information Systems program receive basic instruction and pre-employment training for positions requiring high degrees of skill and technical knowledge. This curriculum will extend or improve the existing occupational competence of employed persons. Students will prepare for entry into the workforce by experiencing practical applications and "real world" simulations appropriate to the specialization.

Three certificates are also offered, which can be applied toward the AAS degree. The certificates provide the knowledge to update current job requirements. After successfully completing one or more certificates students can continue at CCCCD and receive an AAS degree in Computer Information Systems.

Students planning to transfer to a college or university should check with the CCCCD academic advisor prior to beginning this program.

### Career Options

The Computer Information Systems program prepares students for many new job opportunities, such as:

- Business Programmer
- Computer Operator
- Database Manager
- Database Programmer
- Micro Programmer
- PC Service Representative
- PC Support Specialist
- Production Analyst

The program also prepares students to work in a variety of businesses and industries, including:

- Accounting Firms
- Computer Centers
- Financial Firms
- Governmental Agencies
- Manufacturing Firms
- Microcomputer Support Firms
- Transportation Industry

### AAS-Computer Information Systems

64 credit hours

#### FIRST YEAR

##### First Semester

*COSC 1300 Computer Essentials*

*ENGL 1301 Composition/Rhetoric I*

*HUMA 1301 Introduction to the Humanities<sup>1</sup>*

*ITSC 1321 PC Operating Systems - Windows*

*MATH 1324 Pre-Calculus for Business and Economics*

##### Second Semester

*ITSE 1331 Introduction to Visual BASIC Programming*

*ITSW 1304 Introduction to Spreadsheets - Excel*

*PHED/DANC Any activity course<sup>2</sup>*

*SPCH 1311 Fundamentals of Speech Communication<sup>3</sup>*

Elective\*

Elective\*

##### Summer

*PSYC 2301 General Psychology<sup>4</sup>*

#### SECOND YEAR

##### First Semester

*ENGL 2311 Technical Writing*

*ITSE 2349 Advanced Visual BASIC Programming*

*ITSW 1307 Introduction to Database*

Elective\*

Elective\*

##### Second Semester

*BCIS 2390 Software Engineering*

*ECON 1301 Introduction to Economics<sup>5</sup>*

*ITSC 1327 Multi-user Operating Systems*

*ITSW 2380 Cooperative Education - Data Processing Technology/Technician (Capstone)*

Elective\*

NOTE: Italicized course numbers and titles denote AAS Core Curriculum.



- <sup>1</sup> May substitute ARTS 1301, ARTS 1303, ARTS 1304, DRAM 1310, HUMA 1302, MUSI 1306, MUSI 2308, or any PHIL course
- <sup>2</sup> May substitute PHED 1338
- <sup>3</sup> May substitute SPCH 1315 or SPCH 1321
- <sup>4</sup> May substitute PSYC 2302
- <sup>5</sup> May substitute ECON 2301 or ECON 2302
- \* Electives (15 credit hours): ACCT 2301, ACNT 1303, BCIS 1332, BCIS 2332, BMGT 1303, COSC 1320, COSC 1415, COSC 1420, COSC 2325, GRPH 1354, GRPH 1359, ITSC 1309, ITSE 1391, or ITSW 1306

### Business Programming Specialization

64 credit hours

#### FIRST YEAR

##### First Semester

*COSC 1300 Computer Essentials*  
*ENGL 1301 Composition/Rhetoric I*  
*HUMA 1301 Introduction to the Humanities<sup>1</sup>*  
 ITSC 1321 PC Operating Systems - Windows  
*MATH 1324 Pre-Calculus for Business and Economics*

##### Second Semester

ITSE 1331 Introduction to Visual BASIC Programming  
 ITSW 1304 Introduction to Spreadsheets - Excel  
 MATH 1325 Calculus for Business and Economics I  
*PHED/DANC Any activity course<sup>2</sup>*  
*SPCH 1311 Fundamentals of Speech Communication<sup>3</sup>*  
 Elective\*

##### Summer

*PSYC 2301 General Psychology<sup>4</sup>*

#### SECOND YEAR

##### First Semester

ACCT 2301 Financial Accounting  
 BCIS 1332 Cobol I  
*ENGL 2311 Technical Writing*  
 ITSW 1307 Introduction to Database  
 Elective\*

##### Second Semester

ACCT 2302 Managerial Accounting  
 BCIS 2332 Cobol II  
*ECON 1301 Introduction to Economics<sup>5</sup>*  
 ITSC 2380 Cooperative Education - Computer and Information Sciences, General (Capstone)  
 ITSC 1327 Multi-user Operating Systems

- <sup>1</sup> May substitute ARTS 1301, ARTS 1303, ARTS 1304, DRAM 1310, HUMA 1302, MUSI 1306, MUSI 2308, or any PHIL course
- <sup>2</sup> May substitute PHED 1338
- <sup>3</sup> May substitute SPCH 1315 or SPCH 1321
- <sup>4</sup> May substitute PSYC 2302
- <sup>5</sup> May substitute ECON 2301 or ECON 2302
- \* Electives (6 credit hours): BCIS 2390, BUSI 1301, COSC 1320, COSC 1415, COSC 1420, COSC 2325, GRPH 1359, ITSE 1380, ITSE 1391, or ITSE 2349

### Microcomputer Applications Specialization

64 credit hours

#### FIRST YEAR

##### First Semester

*COSC 1300 Computer Essentials*  
*ENGL 1301 Composition/Rhetoric I*  
*HUMA 1301 Introduction to the Humanities<sup>1</sup>*  
 ITSC 1321 PC Operating Systems - Windows  
*MATH 1324 Pre-Calculus for Business and Economics*

##### Second Semester

ITSE 1331 Introduction to Visual BASIC Programming  
 ITSW 1304 Introduction to Spreadsheets - Excel  
*PHED/DANC Any activity course<sup>2</sup>*  
 POFI 2301 Word Processing - MS Word 2000  
*SPCH 1311 Fundamentals of Speech Communication<sup>3</sup>*  
 Elective\*

##### Summer

*PSYC 2301 General Psychology<sup>4</sup>*

#### SECOND YEAR

##### First Semester

ACCT 2301 Financial Accounting  
 GRPH 1359 Object Oriented Computer Graphics  
 IMED 1301 Introduction to Multimedia  
 ITSW 1307 Introduction to Database  
 Elective\*

##### Second Semester

*ECON 1301 Introduction to Economics<sup>5</sup>*  
 GRPH 1354 Electronic Publishing II - Ventura  
 IMED 1305 Multimedia Authoring I  
 ITSC 2380 Cooperative Education - Computer and Information Sciences, General (Capstone)  
 Elective\*

- <sup>1</sup> May substitute ARTS 1301, ARTS 1303, ARTS 1304, DRAM 1310, HUMA 1302, MUSI 1306, MUSI 2308, or any PHIL course
- <sup>2</sup> May substitute PHED 1338
- <sup>3</sup> May substitute SPCH 1315 or SPCH 1321

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<sup>4</sup> May substitute PSYC 2302

<sup>5</sup> May substitute ECON 2301 or ECON 2302

\* Electives (9 credit hours): BCIS 1332, BCIS 2332, BCIS 2390, BMGT 1303, COSC 1415, GRPH 1325, GRPH 2305, ITSC 1327, ITSC 1380, ITSC 2331, ITSE 1391, ITSE 2349, or ITSW 1306,

## CERTIFICATES

Some of the courses in these certificate programs may require prerequisites. Please check the course descriptions in the back of this catalog.

### Computer Information Systems Certificate

24 credit hours

#### FIRST YEAR

##### First Semester

COSC 1300 Computer Essentials  
ITSC 1321 PC Operating Systems - Windows  
ITSE 1331 Introduction to Visual BASIC Programming

##### Second Semester

GRPH 1354 Electronic Publishing II - Ventura  
IMED 1301 Introduction to Multimedia  
ITSW 1304 Introduction to Spreadsheets - Excel  
ITSW 1307 Introduction to Database

##### Summer

ITSC 2380 Cooperative Education - Computer and Information Sciences, General (Capstone)

### Information Systems Management Specialization

27 credit hours

#### FIRST YEAR

##### First Semester

COSC 1300 Computer Essentials  
ITSC 1321 PC Operating Systems - Windows  
ITSE 1331 Introduction to Visual BASIC Programming

##### Second Semester

BCIS 2390 Software Engineering  
IMED 1301 Introduction to Multimedia  
ITSE 2349 Advanced Visual BASIC Programming  
ITSW 1304 Introduction to Spreadsheets - Excel  
ITSW 1307 Introduction to Database

##### Summer

ITSC 2380 Cooperative Education - Computer and Information Sciences, General (Capstone)

### Visual BASIC Programming Specialization

25 credit hours

#### FIRST YEAR

##### First Semester

COSC 1300 Computer Essentials  
ITSC 1321 PC Operating Systems - Windows  
ITSE 1331 Introduction to Visual BASIC Programming  
ITSW 1307 Introduction to Database

##### Second Semester

COSC 1420 Introduction to Programming with C++  
ITSC 2331 Integrated Software Applications III - VBA  
ITSE 2349 Advanced Visual BASIC Programming

##### Summer

ITSE 2380 Cooperative Education - Computer Programming (Capstone)

### Database Programming Certificate

27 credit hours

#### Summer

ITSW 1307 Introduction to Database - Access  
ITNW 1325 Fundamentals of Networking

#### FIRST YEAR

##### First Semester

ITSE 1331 Introduction to Visual BASIC Programming<sup>1</sup>  
ITSE 2309 Introduction to Database Programming - SQL  
ITMC 1419 Installing and Administering Windows 2000 Server<sup>2</sup>

##### Second Semester

ITSE 2333 Implementing a Database on Microsoft SQL Server 7.0  
ITSE 2349 Advanced Visual BASIC Programming<sup>3</sup>  
ITSE 2347 Advanced Database Programming: Advanced SQL  
ITNW 2352 Administering Microsoft SQL Server 7.0

<sup>1</sup> May substitute ITSE 2301

<sup>2</sup> May substitute ITNW 2371

<sup>3</sup> May substitute ITSE 2373

### Software Development Using C++ Certificate

24 credit hours

#### Summer

COSC 1320 C++ for Programmers<sup>1</sup>

#### FIRST YEAR

##### First Semester

COSC 2320 Object-Oriented Programming<sup>2</sup>  
COSC 2325 Assembly Language  
Elective\*

NOTE: Italicized course numbers and titles denote AAS Core Curriculum.

## Second Semester

COSC 2315 Object-Oriented Data Structures with C++  
ITSE 2301 Introduction to Windows Programming Using C++  
ITSE 2372 Object-Oriented Design  
Elective\*

<sup>1</sup> May substitute COSC 1420

<sup>2</sup> May substitute COSC 2420

\* Electives (6 credit hours): BCIS 2390, ITSE 1331, ITSE 2309, ITSE 2317, ITSE 2339, ITSE 2349, ITSE 2371, or ITSE 2373

## COMPUTER NETWORKING TECHNOLOGY

Also a Tech Prep Program

72 credit hours required to graduate

### Program Coordinator:

Tom Jones . . . . .PRC-H219 . . . . .972.377.1714

### Academic Advisor:

Susan Nethery . . . . .PRC-F142 . . . . .972.377.1779

The Computer Networking Technology program prepares students to perform tasks in network technology relating to network management, technical support, hardware/software installation, and equipment repair. The program graduate will be able to assemble computers based on customer requirements, install all network writing and interfaces at customer sites, install and debug network software, and maintain network hardware and software. The graduate also will be qualified to take Novell/Microsoft certification examinations upon completion of the AAS program.

Students planning to transfer to a college or university should check with the CCCCD academic advisor prior to beginning this program.

### Career Opportunities

Computer Networking Technology is a fast-growing and high-demand field, and includes career opportunities in the following areas:

- Equipment Repair
- Hardware/Software Installation
- Network Management
- Technical Support

## AAS — Computer Networking Technology

70 credit hours

### FIRST YEAR

#### First Semester

ITNW 1325 Fundamentals of Networking  
EECT 1303 Introduction to Telecommunications  
CPMT 1411 Introduction to Computer Maintenance<sup>1</sup>  
*ENGL 1301 Composition/Rhetoric I*  
*ITSC 1321 PC Operating Systems - Windows<sup>2</sup>*

## Second Semester

ITCC 1302 Local Area Networks Design and Protocols: Cisco 1<sup>1</sup>  
ITCC 1306 Basic Router Configuration: Cisco 2<sup>1</sup>  
CPMT 1445 Computer Systems Maintenance  
*MATH 1314 College Algebra*  
*SPCH 1311 Fundamentals of Speech Communication<sup>3</sup>*

### Summer

*PHED/DANC Any activity course<sup>4</sup>*  
*PSYC 2301 General Psychology<sup>5</sup>*

## SECOND YEAR

### First Semester

INTC 1307 Electronic Test Equipment  
CETT 1409 DC-AC Circuits  
MATH 2312 Pre-Calculus for Mathematics and Science  
*ECON 2301 Principles of Macroeconomics<sup>6</sup>*  
*HUMA 1301 Introduction to the Humanities<sup>7</sup>*

### Second Semester

EECT 2437 Wireless Telephony Systems (Data)  
CETT 1445 Microprocessor  
ENGL 2311 Technical Writing  
Elective\*  
Elective\*

<sup>1</sup> Tech Prep course which may have been completed in high school.

<sup>2</sup> May substitute for COSC 1300

<sup>3</sup> May substitute SPCH 1315 or SPCH 1321

<sup>4</sup> May substitute PHED 1338

<sup>5</sup> May substitute PSYC 2302

<sup>6</sup> May substitute ECON 1301 or ECON 2302

<sup>7</sup> May substitute ARTS 1301, ARTS 1303, ARTS 1304, DRAM 1310, HUMA 1302, MUSI 1306, MUSI 2308, or any PHIL course

\* Electives (7 credit hours): CETT 1421, EECT 2433, ITCC 1342, ITCC 1346, ITNW 1329, ITNW 1346 (see Footnote 1 above), ITNW 1372, ITNW 1380, ITNW 2305, ITNW 2321, ITNW 2352, ITNW 2365, ITNW 2371, ITNW 2372, ITMC 1419, ITMC 2457, LOTT 1401, or LOTT 2440

## CERTIFICATES

### Computer Networking Technology Certificate

35 credit hours

### FIRST YEAR

#### First Semester

ITNW 1325 Fundamentals of Networking  
ITCC 1302 Local Area Networks Design and Protocols: Cisco 1<sup>1</sup>

#### Second Semester

EECT 1303 Introduction to Telecommunications  
ITCC 1306 Basic Router Configuration: Cisco 2<sup>1</sup>

NOTE: The second digit in a course number indicates the credit hours for that course.

## SECOND YEAR

### First Semester

EECT 2437 Wireless Telephony Systems (Data)  
CPMT 1411 Introduction to Computer Maintenance<sup>1</sup>  
Elective\*

### Second Semester

CPMT 1445 Computer Systems Maintenance  
INTC 1307 Electronic Test Equipment  
Elective\*

<sup>1</sup> Tech Prep course which may have been completed in high school.

\* Electives (8 credit hours): EECT 2433, ITCC 1342 (see Footnote 1 above), ITCC 1346 (see Footnote 1 above), ITMC 1419, ITMC 2457, ITNW 1329, ITNW 1346, ITNW 1372, ITNW 1380, ITNW 2305, ITNW 2321, ITNW 2352, ITNW 2359, ITNW 2365, ITNW 2371, ITNW 2372, LOTT 1401, or LOTT 2440

## Computer Networking Technology

### Hardware Specialization

23 credit hours

#### FIRST YEAR

##### First Semester

CPMT 1411 Introduction to Computer Maintenance<sup>1</sup>  
Elective\*

##### Second Semester

CPMT 1445 Computer Systems Maintenance  
Elective\*

## SECOND YEAR

### First Semester

EECT 2437 Wireless Telephony Systems (Data)  
INTC 1307 Electronic Test Equipment

<sup>1</sup> Tech Prep course which may have been completed in high school.

\* Electives (8 credit hours): CETT 1421, EECT 2433, LOTT 1401, or LOTT 2440

## Computer Networking Technology

### Software Specialization

20 credit hours

#### FIRST YEAR

##### First Semester

ITCC 1302 Local Area Networks Design and Protocols: Cisco 1<sup>1</sup>  
ITNW 1325 Fundamentals of Networking

##### Second Semester

ITCC 1306 Basic Router Configuration: Cisco 2<sup>1</sup>  
Elective\*

## Summer

EECT 1303 Introduction to Telecommunications  
Elective\*

<sup>1</sup> Tech Prep course which may have been completed in high school.

\* Electives (8 credit hours): ITCC 1342 (see Footnote 1 above), ITCC 1346 (see Footnote 1 above), ITMC 1419, ITMC 2457, ITNW 1329, ITNW 1346, ITNW 1372, ITNW 2305, ITNW 2321, ITNW 2352, ITNW 2359, ITNW 2371, or ITNW 2372

## Cisco Systems Networking Certificate

16 credit hours

### FIRST YEAR

#### First Semester

ITCC 1302 Local Area Networks Design and Protocols: Cisco 1<sup>1</sup>  
ITCC 1306 Basic Router Configuration: Cisco 2<sup>1</sup>  
CPMT 1411 Introduction to Computer Maintenance

#### Second Semester

ITCC 1342 Local Area Management (LAN): Cisco 3  
ITCC 1346 Wide Area Management (WAN): Cisco 4

<sup>1</sup> Tech Prep course which may have been completed in high school.

## DENTAL HYGIENE

72 credit hours required to graduate

### Program Director:

Joanne Fletcher . . . . .CPC-A121 . . . . .972.548.6535

### Academic Advisor:

Lynne Meyer . . . . .CPC-A108B . . . . .972.548.6778

The Dental Hygiene program is designed to prepare individuals to become licensed health care professionals who specialize in non-surgical periodontal therapy and oral health education. A broad-based education in biological sciences, humanities, dental sciences, and clinical technologies prepares the graduate for work, under the supervision of a dentist, in private practice and community settings as a member of the dental health team.

Dental Hygiene is a two-year program that begins during the fall semester each year. Classes are scheduled at the Central Park Campus in McKinney. Enrollment is limited and admission to the program is competitive. Clinical students are required to submit a physical, dental, and visual acuity report on an annual basis.

The student is awarded an AAS degree upon successful completion of the program. The graduate is eligible for national and regional examinations.

Students planning to transfer to a college or university should check with the CCCCD academic advisor prior to beginning this program.

NOTE: Italicized course numbers and titles denote AAS Core Curriculum.



## Accreditation

CCCCD's Dental Hygiene program is accredited by the American Dental Association's Council on Dental Accreditation and has been granted the accreditation status of approval without reporting requirements. The Council is a specialized accrediting body recognized by the Department of Education.

## Special Admission Requirements

- Provide proof of high school graduation or GED
- Complete CCCC reading, writing, and mathematics assessments
- Earn a GPA of 2.5 or greater on all courses applicable to the Dental Hygiene program
- Submit official copies of all college transcripts
- Complete pre-entrance course requirements with a GPA of 2.5
- Complete the PSB exam with a satisfactory result
- Submit a handwritten, one- to two-page essay that discusses why dental hygiene has been selected as a profession
- Submit two reference forms: one from an employer and one from an educator

Admission to this program is selective. Admission to the college does not guarantee admission to the Dental Hygiene program. Registration is by permission only. Information and applications may be obtained from the program coordinator or the Social Sciences, Health, and Public Services Office.

## AAS-Dental Hygienist

72 credit hours

### Pre-Entrance Requirements

BIOL 2401 Anatomy and Physiology I  
BIOL 2402 Anatomy and Physiology II  
CHEM 1405 Introduction to Chemistry I

## FIRST YEAR

### First Semester

BIOL 2420 Microbiology  
DHYG 1301 Orofacial Anatomy, Histology and Embryology  
DHYG 1331 Preclinical Dental Hygiene  
ENGL 1301 *Composition/Rhetoric I*

### Second Semester

DHYG 1207 General and Dental Nutrition  
DHYG 1227 Preventive Dental Hygiene Care  
DHYG 1235 Pharmacology for the Dental Hygienist  
DHYG 1261 Clinical I - Dental Hygienist  
DHYG 1304 Dental Radiology  
DHYG 1319 Dental Materials  
PSYC 2301 *General Psychology*

## SECOND YEAR

### First Semester

DHYG 1123 Dental Hygiene Practice  
DHYG 1215 Community Dentistry  
DHYG 1311 Periodontology  
DHYG 1339 General and Oral Pathology  
DHYG 2201 Contemporary Dental Hygiene Care I  
DHYG 2361 Clinical II - Dental Hygienist

### Second Semester

DHYG 1275 Community Dental Health Applications  
DHYG 1375 Strategies of Oral Medicine (Capstone)  
DHYG 2231 Contemporary Dental Hygienist Care II  
DHYG 2363 Clinical III - Dental Hygienist  
*SOCI 1301 Introduction to Sociology*  
*SPCH 1311 Fundamentals of Speech Communication*

## DIETARY MANAGEMENT

15 credit hours required to graduate

### Program Coordinator:

Kim Lower .....SCC-H219 .....972.516.5072

### Academic Advisor:

Windy Pitcock .....SCC-G103.....972.881.5782

CCCCD's Dietary Management program curriculum is approved by the Dietary Manager's Association (DMA). Students will be prepared to test for certification by the DMA after they have completed all coursework. Students will be designated as a Certified Dietary Manager upon successful completion of the certification exam.

### Special Admissions Requirements

- Provide proof of high school diploma or GED
  - Submit completed admissions procedure packet
- Registration is by permission only. Additional information and applications may be obtained from the program coordinator or the Mathematics and Natural Sciences Office.

### Career Opportunities

Graduates of this program will be prepared for positions as a health care food services supervisor for hospitals, nursing homes, and other facilities.

### Dietary Management Certificate

15 credit hours

## FIRST YEAR

### First Semester

DITA 1400 Dietary Manager I  
DITA 1366 Practicum - Dietitian Assistant I

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NOTE: The second digit in a course number indicates the credit hours for that course.

## Second Semester

DITA 1401 Dietary Manager II  
DITA 2467 Practicum - Dietitian Assistant II (Capstone)

## E-BUSINESS MEDIA

67 credit hours required to graduate

### Program Coordinator:

Mary Emerson . . . . .PRC-H111 . . . . .972.377.1687

### Academic Advisor:

Terrence Brennan . . . . .PRC-F143 . . . . .972.377.1778

With the global impact of the web, interactive multimedia technology professionals are in demand. The E-Business Media program prepares students for this role, teaching students to create dynamic web sites, as well as interactive computer-based training modules, simulations, and multimedia presentations.

Students planning to transfer to a college or university should check with the CCCCD academic advisor prior to beginning this program.

### Career Opportunities

An E-Business Media associate degree or certificate provides a variety of career opportunities, including:

- E-Commerce Site Manager/Developer/Database Support
- Interactive Multimedia Programmer/Author
- Multimedia Developer/Generalist
- Web Content Developer/Programmer/Designer/Server Administrator

## AAS – E-Business Media

67 credit hours

### FIRST YEAR

#### First Semester

*COSC 1300 Computer Essentials*  
*ENGL 1301 Composition/Rhetoric I*  
*HUMA 1301 Introduction to the Humanities<sup>1</sup>*  
IMED 1301 Introduction to Multimedia  
ITSW 1310 Presentation Media Software  
Elective\*

#### Second Semester

GRPH 1359 Object-Oriented Computer Graphics - Graphics I PC  
IMED 1316 Web Page Design I  
IMED 2301 Instructional Design  
*PHED/DANC Any Activity Course<sup>2</sup>*  
*SPCH 1311 Fundamentals of Speech Communication<sup>3</sup>*  
Elective\*

## SECOND YEAR

### First Semester

ENGL 2311 Technical Writing  
IMED 1305 Multimedia Authoring I  
IMED 2313 Project Analysis and Design  
ITSE 2313 Web Authoring  
*PSYC 2301 General Psychology<sup>4</sup>*  
Elective\*

### Second Semester

*ECON 2301 Principles of Macroeconomics<sup>5</sup>*  
IMED 1345 Interactive Multimedia I  
ITSC 1380 Cooperative Education - Computer and Information Sciences, General (Capstone)  
*MATH Any 1xxx or 2xxx College-Level Mathematics Course*  
Elective\*

<sup>1</sup> May substitute ARTS 1301, ARTS 1303, ARTS 1304, DRAM 1310, HUMA 1302, MUSI 1306, MUSI 2308, or any PHIL course

<sup>2</sup> May substitute PHED 1338

<sup>3</sup> May substitute SPCH 1315 or SPCH 1321

<sup>4</sup> May substitute PSYC 2302

<sup>5</sup> May substitute ECON 2302

\* Electives (12 credit hours): COSC 1415, DFTG 1391, GRPH 1325, GRPH 1357, GRPH 2305, IMED1351, IMED 1391, IMED 2305, ITSC 2380, ITSE 1331, ITSE 1391, ITSE 2349, or ITSW 1307

## Web Administration Specialization

71 credit hours

### FIRST YEAR

#### First Semester

*COSC 1300 Computer Essentials*  
*ENGL 1301 Composition/Rhetoric I*  
*HUMA 1301 Introduction to the Humanities<sup>1</sup>*  
IMED 1316 Web Page Design I  
ITNW 1325 Fundamentals of Networking

#### Second Semester

IMED 1301 Introduction to Multimedia  
ITSE 2313 Web Authoring  
*MATH Any 1xxx or 2xxx College-Level Mathematics Course*  
*SPCH 1311 Fundamentals of Speech Communication<sup>2</sup>*  
Elective\*

#### Summer

ITMC 1419 Installing and Administering Windows 2000 Server  
*PSYC 2301 General Psychology<sup>3</sup>*

NOTE: Italicized course numbers and titles denote AAS Core Curriculum.

## SECOND YEAR

### First Semester

ENGL 2311 Technical Writing  
IMED 2313 Project Analysis and Design  
IMED 2351 Multimedia Programming  
ITNW 2352 Administering Microsoft SQL Server 7.0  
ITSW 1306 UNIX Operating System I  
*PHED/DANC Any Activity Course<sup>4</sup>*

### Second Semester

*ECON 2301 Principles of Macroeconomics<sup>5</sup>*  
IMED 2349 Internet Communications  
ITNW 2321 Networking with TCP/IP  
ITNW 2359 Creating and Managing a Web Server Using  
Microsoft Internet Information Server

### Summer

ITSC 1380 Cooperative Education, Computer and  
Information Sciences, General (Capstone)  
MRKG 1311 Principles of Marketing

<sup>1</sup> May substitute ARTS 1301, ARTS1303, ARTS 1304, DRAM 1310,  
HUMA 1302, MUSI 1306, MUSI 2308, or any PHIL course

<sup>2</sup> May substitute SPCH 1315 or SPCH 1321

<sup>3</sup> May substitute PSYC 2302

<sup>4</sup> May substitute PHED 1338

<sup>5</sup> May substitute ECON 2302

\* Electives (3 credit hours): COSC 1415, DFTG 1391, GRPH 1325,  
GRPH 1357, GRPH 2305, IMED 1351, IMED 1391, IMED 2305,  
ITSE 1331, ITSE 1391, ITSE 2349, or ITSW 1307

## Web Developer Specialization

71 credit hours

### FIRST YEAR

#### First Semester

*COSC 1300 Computer Essentials*  
*ENGL 1301 Composition/Rhetoric I*  
*HUMA 1301 Introduction to the Humanities<sup>1</sup>*  
IMED 1301 Introduction to Multimedia  
IMED 1316 Web Page Design I  
*PHED/DANC Any Activity Course<sup>2</sup>*

#### Second Semester

IMED 2313 Project Analysis and Design  
ITSE 1331 Introduction to Visual BASIC Programming  
ITSE 2313 Web Authoring  
*MATH Any 1XXX or 2XXX College-Level Mathematics Course*  
Elective\*

#### Summer

*ECON 2301 Principles of Macroeconomics<sup>3</sup>*  
*SPCH 1311 Fundamentals of Speech Communication<sup>4</sup>*

## SECOND YEAR

### First Semester

ITSE 1402 Introduction to Computer Programming –  
Java for Web Developers  
ENGL 2311 Technical Writing  
IMED 1391 Special Topics in Educational/Instructional  
Media Technology/Technician  
IMED 2351 Multimedia Programming  
*PSYC 2301 General Psychology<sup>5</sup>*

### Second Semester

IMED 1345 Interactive Multimedia I  
IMED 2349 Internet Communications  
ITSE 1391 Special Topics in Computer Programming  
Elective\*

### Summer

ITSC 2380 Cooperative Education, Computer and  
Information Sciences, General (Capstone)

Elective\*

<sup>1</sup> May substitute ARTS 1301, ARTS 1303, ARTS 1304, DRAM 1310,  
HUMA 1302, MUSI 1306, MUSI 2308, or any PHIL course

<sup>2</sup> May substitute PHED 1338

<sup>3</sup> May substitute ECON 2302

<sup>4</sup> May substitute SPCH 1315 or SPCH 1321

<sup>5</sup> May substitute PSYC 2302

\* Electives (9 credit hours): COSC 1420, COSC 2420, ECOM 1371,  
ECOM 2371, GRPH 1325, GRPH 1357, GRPH 1359, GRPH 2305,  
IMED 1351, ITSE 2349, or ITSW 1307

## CERTIFICATES

### E-Business Media Certificate

27 credit hours

#### FIRST YEAR

##### First Semester

COSC 1300 Computer Essentials  
IMED 1301 Introduction to Multimedia  
IMED 1316 Web Page Design I  
IMED 2313 Project Analysis and Design

##### Second Semester

GRPH 1359 Object Oriented Computer Graphics - Graphics I PC  
IMED 2301 Instructional Design  
ITSC 1380 Cooperative Education - Computer and  
Information Sciences, General (Capstone)  
ITSE 2313 Web Authoring  
ITSW 1310 Presentation Media Software

NOTE: The second digit in a course number indicates the credit hours for that course.

## Technology-Based Training Specialization

40 credit hours

### FIRST YEAR

#### First Semester

COSC 1300 Computer Essentials  
IMED 1301 Introduction to Multimedia  
IMED 1316 Web Page Design I  
IMED 2313 Project Analysis and Design

#### Second Semester

GRPH 1359 Object Oriented Computer Graphics - Graphics I PC  
IMED 2301 Instructional Design  
ITSE 2313 Web Authoring  
ITSW 1310 Presentation Media Software

### SECOND YEAR

#### First Semester

ITSE 1402 Introduction to Computer Programming -  
Java for Web Developers  
IMED 1305 Multimedia Authoring I  
Elective\*

#### Second Semester

IMED 1345 Interactive Multimedia I  
ITSC 1380 Cooperative Education - Computer and  
Information Sciences, General (Capstone)

\* Electives (3 credit hours): DFTG 1391, GRPH 1325, GRPH 1357,  
GRPH 2305, IMED 1351, IMED 1391, IMED 2305, IMED 2349,  
IMED 2351, ITSC 2380, ITSE 1331, ITSE 1391, ITSE 2349,  
or ITSW 1307

## Web Developer Specialization

40 credit hours

### FIRST YEAR

#### First Semester

COSC 1300 Computer Essentials  
IMED 1301 Introduction to Multimedia  
IMED 1316 Web Page Design I  
IMED 2313 Project Analysis and Design

#### Second Semester

ITSE 1331 Introduction to Visual BASIC Programming  
ITSE 2313 Web Authoring  
IMED 1345 Interactive Multimedia I

### SECOND YEAR

#### First Semester

IMED 1391 Special Topics in Educational/Instructional  
Media Technology/Technician  
IMED 2349 Internet Communications

IMED 2351 Multimedia Programming  
COSC 1415 Java for Non-Programmers

### Second Semester

ITSC 1380 Cooperative Education - Computer and  
Information Sciences, General (Capstone)  
ITSE 1391 Special Topics in Computer Programming

## E-Commerce Certificate

34 credit hours

### FIRST YEAR

#### First Semester

ECOM 1370 Introduction to E-Commerce  
ECOM 2371 E-Business Authoring and Programming  
IMED 1301 Introduction to Multimedia  
IMED 2313 Project Analysis and Design  
ITNW 1325 Fundamentals of Networking

#### Second Semester

ECOM 1372 E-Business Strategies  
ECOM 1371 Data for E-Business\*  
ITMC 1419 Installing and Administering  
Windows 2000 Server

### Summer

ECOM 1373 E-Marketing  
ECOM 2372 E-Commerce Software and Support Tools (Capstone)  
ITNW 2352 Administering Microsoft SQL Server 7.0

\* Student must take ECOM 2371 prior to taking this course.

## ELECTRONIC ENGINEERING TECHNOLOGY

Also a Tech Prep Program

67 credit hours required to graduate

### Program Coordinator:

Peter Brierley . . . . .PRC-H230E . . . . .972..377.1686

### Academic Advisor:

Susan Nethery . . . . .PRC-F142 . . . . .972.377.1779

Students in the Electronic Engineering Technology degree program will receive training in several diversified areas of electronics. This program emphasizes 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.

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

Through articulation agreements, students can transfer their completed program toward a bachelor's degree into several colleges and universities. Students planning to transfer to a college or university should check with the CCCCD academic advisor prior to beginning this program.

NOTE: Italicized course numbers and titles denote AAS Core Curriculum.



## Career Opportunities

Trained electronic engineering technicians are in high demand in our service area. Industry at present has a shortage of over 3,000 technicians and forecasts this to increase over the next decade.

Students completing the Electronic Engineering Technology degree program will receive quality training for the following fields:

- Advanced Manufacturing Equipment Applications
- Avionics and Space Communications
- Biomedical Applications and Design
- Computer Systems Applications
- Laser and Fiber Optics Applications
- Printed Circuit Board Design and Manufacturing
- Semiconductor Wafer Fabrication
- Telecommunications

## AAS-Electronic Engineering Technology

67 credit hours

### FIRST YEAR

#### First Semester

CETT 1403 DC Circuits<sup>1</sup>

ENGL 1301 *Composition/Rhetoric I*

MATH 1314 *College Algebra*

PHYS 1401 General Physics I

#### Second Semester

CETT 1405 AC Circuits<sup>1</sup>

CETT 1425 Digital Fundamentals

DFTG 1309 *Basic Computer-Aided Drafting*<sup>2</sup>

MATH 1316 Trigonometry

#### Summer

SPCH 1311 *Fundamentals of Speech Communication*<sup>3</sup>

Elective\*

### SECOND YEAR

#### First Semester

CETT 1445 Microprocessor

CETT 1457 Linear Integrated Circuits

HUMA 1301 *Introduction to the Humanities*<sup>4</sup>

PHED/DANC *Any activity course*<sup>5</sup>

PHYS 1402 General Physics II

#### Second Semester

ECON 1301 *Introduction to Economics*<sup>6</sup>

EECT 2433 Telephone Systems

MATH 2413 Calculus I

PSYC 2302 *Applied Psychology*<sup>7</sup>

Elective\*

**CAPSTONE: Comprehensive examination**

<sup>1</sup> Tech Prep course which may have been completed in high school.

<sup>2</sup> May be substituted for COSC 1300

<sup>3</sup> May substitute SPCH 1315 or SPCH 1321

<sup>4</sup> May substitute ARTS 1301, ARTS 1303, ARTS 1304, DRAM 1310, HUMA 1302, MUSI 1306, MUSI 2308, or any PHIL course

<sup>5</sup> May substitute PHED 1338

<sup>6</sup> May substitute ECON 2301 or ECON 2302

<sup>7</sup> May substitute PSYC 2301

\* Electives (6 credit hours): CETT 1409, CPMT 1411, CPMT 2337, EECT 1391, EECT 1491, ENTC 1380, ENTC 2380, INTC 1305, or LOTT 2440

## Electronic Engineering Technology Certificate

30 credit hours

### FIRST YEAR

#### First Semester

CETT 1403 DC Circuits<sup>1</sup>

MATH 1316 Trigonometry

#### Second Semester

CETT 1405 AC Circuits<sup>1</sup>

MATH 2413 Calculus I

### SECOND YEAR

#### First Semester

CETT 1425 Digital Fundamentals

CETT 1457 Linear Integrated Circuits

#### Second Semester

CETT 1445 Microprocessor

CMPT 2337 Microcomputer Interfacing

**CAPSTONE: Comprehensive examination**

<sup>1</sup> Tech Prep course which may have been completed in high school.

## ELECTRONIC TECHNOLOGY

Also a Tech Prep Program

68 credit hours required to graduate

### Program Coordinator:

Pete Brierley . . . . . PRC-H230E . . . . . 972.377.1686

### Academic Advisor:

Susan Nethery . . . . . PRC-F142 . . . . . 972.377.1779

Trained electronic technicians are in high demand in our area. Industry at present has a shortage of over 3,000 technicians and forecasts this to increase over the next decade. Students in the Electronic Technology program can pursue training in one of three specialized areas: computer maintenance, general electronics, or instrumentation.

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

Through articulation agreements, students can transfer their completed program toward a bachelor's degree into several colleges and universities. Students planning to transfer to a college or university should check with the CCCC academic advisor prior to beginning this program.

### Career Opportunities

Students completing the Electronic Technology degree program will receive quality training for the following fields:

- Advanced Manufacturing Equipment Applications
- Avionics and Space Communications
- Biomedical Applications and Design
- Computer Systems Applications
- Laser and Fiber Optics Applications
- Printed Circuit Board Design and Manufacturing
- Semiconductor Wafer Fabrication
- Telecommunications

### AAS-Electronic Technology

68 credit hours

#### FIRST YEAR

##### First Semester

CETT 1403 DC Circuits<sup>1</sup>  
*DFTG 1309 Basic Computer-Aided Drafting<sup>2</sup>*  
*ECON 1301 Introduction to Economics<sup>3</sup>*  
*ENGL 1301 Composition/Rhetoric I*  
*MATH 1314 College Algebra*

##### Second Semester

CETT 1405 AC Circuits<sup>1</sup>  
 CETT 1421 Electronic Fabrication  
 DFTG 1358 Electrical/Electronics Drafting  
*HUMA 1301 Introduction to the Humanities<sup>4</sup>*  
 MATH 1316 Trigonometry

##### Summer

CETT 1429 Solid State Devices  
 ENGL 2311 Technical Writing

#### SECOND YEAR

##### First Semester

CETT 1325 Digital Fundamentals<sup>1</sup>  
 CETT 1457 Linear Integrated Circuits  
 CSIR 1444 General Communication Circuits I  
*PHED/DANC Any activity course<sup>5</sup>*  
*SPCH 1311 Fundamentals of Speech Communication<sup>6</sup>*

##### Second Semester

ELMT 2437 Electronic Troubleshooting, Service, and Repair  
 PSYC 2302 Applied Psychology<sup>7</sup>

Elective\*

Elective\*

### CAPSTONE: Comprehensive examination

- <sup>1</sup> Tech Prep course which may have been completed in high school.
  - <sup>2</sup> May be substituted for COSC 1300
  - <sup>3</sup> May substitute ECON 2301 or ECON 2302
  - <sup>4</sup> May substitute ARTS 1301, ARTS 1303, ARTS 1304, DRAM 1310, HUMA 1302, MUSI 1306, MUSI 2308, or any PHIL course
  - <sup>5</sup> May substitute PHED 1338
  - <sup>6</sup> May substitute SPCH 1315 or SPCH 1321
  - <sup>7</sup> May substitute PSYC 2301
- \* Electives (6 credit hours): Any CETT, CPMT, EECT, or LOTT courses not listed above

### Computer Maintenance Electronic Specialization

72 credit hours

#### FIRST YEAR

##### First Semester

CETT 1425 Digital Fundamentals  
*DFTG 1309 Basic Computer-Aided Drafting<sup>1</sup>*  
*ECON 1301 Introduction to Economics<sup>2</sup>*  
*ENGL 1301 Composition/Rhetoric I*  
*MATH 1314 College Algebra*

##### Second Semester

CETT 1421 Electronic Fabrication  
 CETT 1431 Technical Programming  
 DFTG 1358 Electrical/Electronics Drafting  
*HUMA 1301 Introduction to the Humanities<sup>3</sup>*  
 MATH 1316 Trigonometry

##### Summer

CETT 1457 Linear Integrated Circuits  
 ENGL 2311 Technical Writing

#### SECOND YEAR

##### First Semester

CETT 1445 Microprocessor  
 CPMT 1411 Introduction to Computer Maintenance<sup>4</sup>  
 CPMT 1443 Microcomputer Architecture  
*SPCH 1311 Fundamentals of Speech Communication<sup>5</sup>*

##### Second Semester

CPMT 1445 Computer Systems Maintenance  
 CPMT 2337 Microcomputer Interfacing  
*PHED/DANC Any activity course<sup>6</sup>*  
*PSYC 2302 Applied Psychology<sup>7</sup>*

Elective\*

Elective\*

### CAPSTONE: Comprehensive examination

NOTE: Italicized course numbers and titles denote AAS Core Curriculum.

- <sup>1</sup> May be substituted for COSC 1300
- <sup>2</sup> May substitute ECON 2301 or ECON 2302
- <sup>3</sup> May substitute ARTS 1301, ARTS 1303, ARTS 1304, DRAM 1310, HUMA 1302, MUSI 1306, MUSI 2308, or any PHIL course
- <sup>4</sup> Tech Prep course which may have been taken in high school.
- <sup>5</sup> May substitute SPCH 1315 or SPCH 1321
- <sup>6</sup> May substitute PHED 1338
- <sup>7</sup> May substitute PSYC 2301
- \* Electives (6 credit hours): Any CETT, CPMT, EECT, and LOTT courses not listed above

### Instrumentation Electronic Specialization

70 credit hours

#### FIRST YEAR

##### First Semester

- CETT 1403 DC Circuits<sup>1</sup>
- DFTG 1309 Basic Computer-Aided Drafting<sup>1,2</sup>
- ECON 1301 Introduction to Economics<sup>3</sup>
- ENGL 1301 Composition/Rhetoric I
- MATH 1314 College Algebra

##### Second Semester

- CETT 1325 Digital Fundamentals<sup>1</sup>
- CETT 1405 AC Circuits<sup>1</sup>
- DFTG 1358 Electrical/Electronics Drafting
- HUMA 1301 Introduction to the Humanities<sup>4</sup>
- MATH 1316 Trigonometry

##### Summer

- CETT 1429 Solid State Devices
- ENGL 2311 Technical Writing

#### SECOND YEAR

##### First Semester

- CETT 2333 Digital Computer Circuits
- ELMT 1301 Basic Programmable Logic Controllers
- ELMT 2437 Electronic Troubleshooting, Service, and Repair
- INMT 1447 Industrial Automation
- SPCH 1311 Fundamentals of Speech Communication<sup>5</sup>

##### Second Semester

- CETT 1457 Linear Integrated Circuits
- PHED/DANC Any activity course<sup>6</sup>
- PSYC 2302 Applied Psychology<sup>7</sup>
- Elective\*
- Elective\*

#### CAPSTONE: Comprehensive examination

<sup>1</sup> Tech Prep course which may have been completed in high school.

- <sup>2</sup> May be substituted for COSC 1300
- <sup>3</sup> May substitute ECON 2301 or ECON 2302
- <sup>4</sup> May substitute ARTS 1301, ARTS 1303, ARTS 1304, DRAM 1310, HUMA 1302, MUSI 1306, MUSI 2308, or any PHIL course
- <sup>5</sup> May substitute SPCH 1315 or SPCH 1321
- <sup>6</sup> May substitute PHED 1338
- <sup>7</sup> May substitute PSYC 2301
- \* Electives (6 credit hours): CETT 1441, CETT 2439, CPMT 1443, ENTC 1380, ENTC 2380, or LOTT 1401

### CERTIFICATES

#### Electronic Technology Certificate

31 credit hours

#### FIRST YEAR

##### First Semester

- CETT 1325 Digital Fundamentals<sup>1</sup>
- CETT 1403 DC Circuits<sup>1</sup>
- CETT 1421 Electronic Fabrication
- ELMT 2437 Electronic Troubleshooting, Service, and Repair

##### Second Semester

- CETT 1405 AC Circuits<sup>1</sup>
- CETT 1429 Solid State Devices<sup>1</sup>
- CETT 1457 Linear Integrated Circuits
- CSIR 1444 General Communication Circuits I

#### CAPSTONE: Comprehensive examination

<sup>1</sup> Tech Prep course which may have been completed in high school.

#### Computer Maintenance Specialization

35 credit hours

#### FIRST YEAR

##### First Semester

- CETT 1425 Digital Fundamentals
- CETT 1431 Technical Programming
- CPMT 1411 Introduction to Computer Maintenance
- CPMT 1443 Microcomputer Architecture

##### Second Semester

- CETT 1421 Electronic Fabrication
- CETT 1445 Microprocessor<sup>1</sup>
- CETT 1457 Linear Integrated Circuits
- CPMT 1445 Computer Systems Maintenance
- CPMT 2337 Microcomputer Interfacing

#### CAPSTONE: Comprehensive examination

<sup>1</sup> Tech Prep course which may have been completed in high school.

...Continued on Next Page

## Instrumentation Specialization

33 credit hours

### FIRST YEAR

#### First Semester

CETT 1325 Digital Fundamentals<sup>1</sup>  
CETT 1403 DC Circuits<sup>1</sup>  
CETT 1405 AC Circuits<sup>1</sup>  
CETT 2333 Digital Computer Circuits  
ELMT 1301 Basic Programmable Logic Controllers

#### Second Semester

CETT 1429 Solid State Devices  
CETT 1457 Linear Integrated Circuits  
ELMT 2437 Electronic Troubleshooting, Service, and Repair  
INMT 1447 Industrial Automation

### CAPSTONE: Comprehensive examination

<sup>1</sup> Tech Prep course which may have been completed in high school.

## EMERGENCY MEDICAL PROFESSIONS

38 credit hours required to graduate

### Program Director:

Robert Sherard . . . . .CPC-E307 . . . . .972.548.6848

### Academic Advisor:

Lynne Meyer . . . . .CPC-A108B . . . . .972.548.6778

CCCCD's Emergency Medical Services Professions program establishes an excellent foundation for careers in emergency medicine and other related health care fields. Two tracks available, including:

- **Emergency Medical Technician - Basic**           **6 credit hours**  
(Prerequisite for degree and certificate)
- **Emergency Medical Services Certification (Paramedic)**           **38 credit hours**

Students planning to transfer to a college or university should check with a CCCCAD academic advisor prior to beginning this program.

### ADMISSION REQUIREMENTS

#### All students:

- High school diploma or GED
- 18 years of age
- Criminal history check
- Drug screen
- American Heart Association CPR for Health Care Provider

*NOTE: This may be taken concurrently with EMSP coursework. However, this requirement must be met before attending clinicals and internship.*

#### EMT - Basic students:

No additional requirements

## Emergency Medical Services Certificate (Paramedic)

- EMT - Basic certification
- Completion of program application (available in Health Sciences Office, CPC-E302)
- PSB examination for Allied Health Professionals (offered at specific times throughout the year)
- Completion of local college assessments in reading, writing, and mathematics. (Must place at or above college-level in all assessments).

### Career Opportunities

- Cardiac Lab Technician
- Emergency Department Assistant
- Patient Care Technician
- Intensive Care Technician
- Firefighter/Paramedic
- Paramedic (non-911)
- Emergency Medical Technician (non-911)

## Emergency Medical Services Certificate

38 credit hours

### Prerequisites

EMSP 1501 Emergency Medical Technician - Basic<sup>1</sup>  
EMSP 1160 Clinical - Emergency Medical  
Technology/Technician - Basic<sup>1</sup>

### FIRST YEAR

#### First Semester

EMSP 1338 Introduction to Advanced Practice  
EMSP 1356 Patient Assessment and Airway Management

#### Second Semester

EMSP 2434 Medical Emergencies  
EMSP 2444 Cardiology  
EMSP 1161 Clinical - Advanced I

#### Summer

EMSP 1355 Trauma Management  
EMSP 1162 Clinical - Advanced II

### SECOND YEAR

#### First Semester

EMSP 2330 Special Populations  
EMSP 2338 EMS Operations  
EMSP 2260 Clinical - Advanced III

#### Second Semester

EMSP 2243 Assessment Based Management (Capstone)  
EMSP 2388 Internship - Emergency Medical Technology/Technician

<sup>1</sup> A student that has the EMT - Basic certification has met this requirement. The student may also choose to complete six credit hours of foreign language to satisfy this requirement.

NOTE: Italicized course numbers and titles denote AAS Core Curriculum.



## ENVIRONMENTAL TECHNOLOGY

Also see Environmental Science, page 64.

62 credit hours required to graduate

### Program Coordinator:

Daphne Hall .....PRC-F211 .....972.377.1640

### Academic Advisor:

Windy Pitcock .....SCC-G103.....972.881.5782

The need to enhance science, mathematics, and technical education – including environmental science and technology – has been recognized as a national priority by government, industry, and the academic community. CCCCD's Environmental Technology curriculum is designed to foster environmental and technological literacy and enable students to understand the interconnections of science, technology, society, and the environment.

The Environmental Technology program offers two areas of specialization: Waste Management and Remediation, and Water and Wastewater Monitoring and Testing. In the process of obtaining an AAS degree in Environmental Technology, students will acquire valuable certificates in Hazardous Waste Operations and Emergency Response (HAZWOPER) as well as Water and Wastewater Operations.

Students planning to transfer to a college or university should check with the CCCCD academic advisor prior to beginning this program.

### Career Opportunities

The following list identifies just a few of the typical entry-level job titles for graduates:

- Air Sampling and Monitoring Technician
- Drinking Water Technician
- Emergency Response Technician
- Environmental Compliance Technician
- Environmental Laboratory Technician
- Field Sampling Technician
- Ground Water Technician
- Hazardous Materials Technician
- Industrial Hygiene Technician
- Industrial Waste Treatment Technician
- Recycling Technician
- Regulatory Compliance Information Technician
- Remediation Technician
- Sample Prep Technician
- Solid Waste Technician
- Surface Water Technician
- Waste Minimization Technician
- Wastewater Treatment Operator
- Water Supply Technician

## AAS-Environmental Technology

Students must choose a Specialization to complete the AAS degree.

### FIRST YEAR

#### First Semester

*CHEM 1405 Introduction to Chemistry<sup>1</sup>*

*ENGL 1301 Composition/Rhetoric I*

ENVR 1401 Environmental Science I

EPCT 1305 Environmental Regulations Overview

#### Second Semester

EPCT 1344 Environmental Sampling and Analysis

EPCT 1401 Hazardous Waste Operations and Emergency Response (HAZWOPER) Training and Related Topics

*MATH 1342 Statistics<sup>2</sup>*

OSHT 2401 OSHA Regulations - General Industry

*SPCH 1311 Fundamentals of Speech Communication<sup>3</sup>*

#### Summer

*COSC 1300 Computer Essentials*

*PHED/DANC Any activity course<sup>4</sup>*

### Choose one of the following Specializations:

#### Waste Management and Remediation Specialization

62 credit hours

#### SECOND YEAR

##### First Semester

EPCT 1341 Principles of Industrial Hygiene

EPCT 1343 Treatment, Remediation, and Disposal Techniques

EPCT 2333 Environmental Toxicology

EPCT 2335 Advanced Environmental Instrumental Analysis

*PSYC 2301 General Psychology<sup>5</sup>*

##### Second Semester

EPCT 2337 Site Assessment

EPCT 2381 Cooperative Education - Environmental and Pollution Control Technology/Technician (Capstone)

*HUMA 1301 Introduction to the Humanities<sup>6</sup>*

Elective\*

#### Water and Waste Water Monitoring and Testing Specialization

63 credit hours

#### SECOND YEAR

##### First Semester

EPCT 1317 Environmental Geology

EPCT 1351 Quality Assurance and Quality Control

EPCT 1428 Basic Wastewater Operations

EPCT 2212 Water Rules and Regulations

*PSYC 2301 General Psychology<sup>5</sup>*

NOTE: The second digit in a course number indicates the credit hours for that course.

## Second Semester

EPCT 2381 Cooperative Education - Environmental and Pollution Control Technology/Technician (Capstone)

EPCT 2403 Surface and Ground Water Collection

*HUMA 1301 Introduction to the Humanities<sup>6</sup>*

Elective\*

<sup>1</sup> May substitute CHEM 1411

<sup>2</sup> May substitute MATH 1314 (recommended for transfer students)

<sup>3</sup> May substitute SPCH 1315 or SPCH 1321

<sup>4</sup> May substitute PHED 1338

<sup>5</sup> May substitute PSYC 2302

<sup>6</sup> May substitute ARTS 1301, ARTS 1303, ARTS 1304, DRAM 1310, HUMA 1302, MUSI 1306, MUSI 2308, or any PHIL course

\* Electives (3 credit hours): EPCT 1327, EPCT 2304, EPCT 2313, EPCT 2341, EPCT 2342, or any EPCT course from a second specialization

## Water Quality and Wastewater Technician Certificate

30 credit hours

### FIRST YEAR

#### First Semester

ENVR 1401 Environmental Science I

EPCT 1305 Environmental Regulations Overview

EPCT 1344 Environmental Sampling and Analysis

EPCT 1428 Basic Wastewater Operations

#### Second Semester

EPCT 1351 Quality Assurance and Quality Control

OSHT 2401 OSHA Regulations - General Industry

EPCT 2212 Water Rules and Regulations

EPCT 2403 Surface and Ground Water Collection

Elective\*

**CAPSTONE: EPCT 2380 or comprehensive examination**

\* Electives (3 credit hours): EPCT 1327, EPCT 1401, EPCT 2304, EPCT 2313, EPCT 2341, EPCT 2342, EPCT 2380, or any EPCT course from a second specialization

## FIRE SCIENCE

68 credit hours required to graduate

### Program Director:

Pat McAuliff . . . . .CPC-A206 . . . . .972.548.6837

### Academic Advisor:

Lynne Meyer . . . . .CPC-A108B . . . . .972.548.6778

The firefighter with a well-balanced educational background will be better prepared to serve and protect the community. CCCCD's 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 acquire the technical knowledge needed to combat the fire problems created by modern living.

Fire Science courses are scheduled to accommodate traditional firefighter work shifts. Full-time, full-paid firefighters employed by any political subdivision enrolled in fire science courses within CCCCD's Fire Science program are exempt from paying tuition and laboratory fees.

Students planning to transfer to a college or university should check with the CCCCD academic advisor prior to beginning this program.

Students interested in enrolling in the Fire Academy should contact the Fire Science Office at 972.548.6836.

Additional information may be obtained from the Director of Fire Science, the Social Sciences, Health, and Public Services Office, or at the Fire Science web site: [iws.ccccd.edu/firescience/fire.html](http://iws.ccccd.edu/firescience/fire.html)

## Special Admissions Requirements

### for Firefighter Certification Courses\*\*

- Have proof of high school graduation or GED
- Complete CCCCD reading and mathematics assessments
- Complete the physical ability exam and personal interview scheduled through the program coordinator
- Candidates to the Fire Academy must be in good academic standing

Registration is by permission only. Additional information and applications may be obtained from the program director or the Social Sciences, Health, and Public Services Office.

## 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:

- Fire Department Officer
- Fire Equipment Sales and Service Representative
- Firefighter
- Hazardous Material Team Member
- Industrial Fire Protection Technician
- Municipal Emergency Administrator
- Safety Technician

NOTE: Italicized course numbers and titles denote AAS Core Curriculum.

## AAS–Fire Science

68 credit hours

Students must choose a Specialization to complete the AAS degree.

### FIRST YEAR

#### First Semester

*ECON 1301 Introduction to Economics<sup>1</sup>*  
*ENGL 1301 Composition/Rhetoric I*  
*MATH 1332 Contemporary Mathematics<sup>2</sup>*  
*PHED 1100 Beginning Weight Training<sup>3</sup>*  
FIRT 1301 Fundamentals of Fire Protection  
*COSC 1300 Computer Essentials*

#### Second Semester

*HUMA 1301 Introduction to the Humanities<sup>4</sup>*  
*SPCH 1311 Fundamentals of Speech Communication<sup>5</sup>*  
*GOVT 2301 American Government I*  
FIRT 1315 Hazardous Materials I  
*CHEM 1405 Introduction to Chemistry I*

### SECOND YEAR

#### First Semester

FIRT 1329 Building Codes and Construction  
FIRT 1338 Fire Protection Systems  
*ENGL 2311 Technical Writing*  
*PSYC 2302 Applied Psychology<sup>6</sup>*  
Elective\*

#### Second Semester

FIRT 1307 Fire Prevention Codes and Inspections  
FIRT 1309 Fire Administration I  
FIRT 1345 Hazardous Materials II  
FIRT 1303 Fire and Arson Investigation I  
FIRT 1305 Public Education Programs  
FIRT 1347 Industrial Fire Protection  
FIRT 1349 Fire Administration II (Capstone)

<sup>1</sup> May substitute ECON 2301 or ECON 2302

<sup>2</sup> May substitute MATH 1324 Pre-Calculus or MATH 1314 College Algebra (recommended for transfer students)

<sup>3</sup> May substitute PHED 1338

<sup>4</sup> May substitute ARTS 1301, DRAM 1310, MUSI 1306, MUSI 2308, or any PHIL course

<sup>5</sup> May substitute SPCH 1315 or SPCH 1321

<sup>6</sup> May substitute PSYC 2301

\* Open Elective

## Fire Officer Certification Specialization

68 credit hours

### FIRST YEAR

#### First Semester

*ECON 1301 Introduction to Economics<sup>1</sup>*  
*ENGL 1301 Composition/Rhetoric I*  
*MATH 1332 Contemporary Mathematics<sup>2</sup>*  
*PHED 1100 Beginning Weight Training<sup>3</sup>*  
FIRT 1301 Fundamentals of Fire Protection  
*COSC 1300 Computer Essentials*

#### Second Semester

*HUMA 1301 Introduction to the Humanities<sup>4</sup>*  
*SPCH 1311 Fundamentals of Speech Communication<sup>5</sup>*  
*GOVT 2301 American Government I*  
FIRT 1315 Hazardous Materials I  
*CHEM 1405 Introduction to Chemistry I*

### SECOND YEAR

#### First Semester

FIRT 1329 Building Codes and Construction  
FIRT 1338 Fire Protection Systems  
*ENGL 2311 Technical Writing*  
*PSYC 2302 Applied Psychology<sup>6</sup>*  
Elective\*

#### Second Semester

FIRT 1307 Fire Prevention Codes and Inspections  
FIRT 1303 Fire and Arson Investigation I  
FIRT 1309 Fire Administration I  
FIRT 1349 Fire Administration II  
FIRT 1355 Methods of Teaching  
FIRT 1331 Firefighting Strategies and Tactics I  
FIRT 2370 Company Fire Officer (Capstone)

<sup>1</sup> May substitute ECON 2301 or ECON 2302

<sup>2</sup> May substitute MATH 1324 Pre-Calculus or MATH 1314 College Algebra (recommended for transfer students)

<sup>3</sup> May substitute PHED 1338

<sup>4</sup> May substitute ARTS 1301, DRAM 1310, MUSI 1306, MUSI 2308, or any PHIL course

<sup>5</sup> May substitute SPCH 1315 or SPCH 1321

<sup>6</sup> May substitute PSYC 2301

\* Open Elective

## Basic Firefighter Certification Specialization

69 credit hours

### FIRST YEAR

#### First Semester

*ECON 1301 Introduction to Economics<sup>1</sup>*  
*ENGL 1301 Composition/Rhetoric I*  
*MATH 1332 Contemporary Mathematics<sup>2</sup>*  
*PHED 1100 Beginning Weight Training<sup>3</sup>*  
FIRT 1301 Fundamentals of Fire Protection  
*COSC 1300 Computer Essentials*

#### Second Semester

*HUMA 1301 Introduction to the Humanities<sup>4</sup>*  
*SPCH 1311 Fundamentals of Speech Communication<sup>5</sup>*  
*GOVT 2301 American Government I*  
FIRT 1315 Hazardous Materials I  
*CHEM 1405 Introduction to Chemistry I*

### SECOND YEAR

#### First Semester

FIRT 1329 Building Codes and Construction  
FIRT 1338 Fire Protection Systems  
*ENGL 2311 Technical Writing*  
*PSYC 2302 Applied Psychology<sup>6</sup>*  
Elective\*

#### Second Semester

FIRS 1201 Firefighter Certification I  
FIRS 1207 Firefighter Certification II  
FIRS 1313 Firefighter Certification III  
FIRS 1219 Firefighter Certification IV  
FIRS 1223 Firefighter Certification V  
FIRS 1329 Firefighter Certification VI  
EMSP 1501 Emergency Medical Technician - Basic  
EMSP 1160 Clinical - Emergency Medical  
Technology/Technician - Basic  
FIRS 1233 Firefighter Certification VII (Capstone)

<sup>1</sup> May substitute ECON 2301 or ECON 2302

<sup>2</sup> May substitute MATH 1324 Pre-Calculus or MATH 1314 College Algebra (recommended for transfer students)

<sup>3</sup> May substitute PHED 1338

<sup>4</sup> May substitute ARTS 1301, DRAM 1310, MUSI 1306, MUSI 2308, or any PHIL course

<sup>5</sup> May substitute SPCH 1315 or SPCH 1321

<sup>6</sup> May substitute PSYC 2301

\* Open Elective

## CERTIFICATES

### Basic Firefighter Certificate

22 credit hours

#### FIRST YEAR

##### First Semester

FIRS 1201 Firefighter Certification I  
FIRS 1207 Firefighter Certification II  
FIRS 1313 Firefighter Certification III  
EMSP 1501 Emergency Medical Technician - Basic  
EMSP 1160 Clinical - Emergency Medical  
Technology/Technician - Basic

##### Second Semester

FIRS 1219 Firefighter Certification IV  
FIRS 1223 Firefighter Certification V  
FIRS 1329 Firefighter Certification VI  
FIRS 1233 Firefighter Certification VII (Capstone)

### Fire Officer Certificate

21 credit hours

#### FIRST YEAR

##### First Semester

FIRT 1307 Fire Prevention Codes and Inspections  
FIRT 1303 Fire and Arson Investigation I  
FIRT 1309 Fire Administration I

##### Second Semester

FIRT 1349 Fire Administration II  
FIRT 1355 Methods of Teaching  
FIRT 1331 Firefighting Strategies and Tactics I

##### Summer

FIRT 2370 Company Fire Officer (Capstone)

## HORTICULTURE TECHNOLOGY

16 credit hours required to graduate

### Program Coordinator:

Division Office . . . . . SCC-K105 . . . . . 972.881.5880

### Academic Advisor:

Windy Pitcock . . . . . SCC-G103 . . . . . 972.881.5782

CCCCD's Horticulture Technology certificate program enables students to upgrade their knowledge and skills in various areas of the horticulture industry and prepares graduates for immediate positions in the nursery, landscape, and professional turfgrass industries.

Students planning to transfer to a college or university should check with the CCCCAD academic advisor prior to beginning this program.



## Career Opportunities

The field of horticulture is constantly changing. Public awareness of the value of landscape development, gardening and turfgrass management, along with increasing technological sophistication is contributing to the need for trained people in the horticulture industry. Some opportunities for employment can be found in:

- Greenhouse and Nursery Production
- Grounds Supervision
- Landscape Contracting and Management
- Nursery Ownership and Management
- Park Maintenance
- Professional Turfgrass Management

## CERTIFICATES

### Beginning Horticulture Certificate

16 credit hours

#### FIRST YEAR

##### First Semester

HALT 1401	Principles of Horticulture
HALT 1211	Shrubs, Vines, and Groundcovers
HALT 1213	Economic Entomology
HALT 1217	Trees
HALT 1303	Herbaceous Plants
HALT 1307	Plant Diseases

### Advanced Horticulture Certificate

28 credit hours

Students must have completed the Beginning Horticulture Certificate (16 credit hours) in addition to the course requirements listed below to be awarded the Advanced Horticulture Certificate (12 credit hours).

#### FIRST YEAR

##### First Semester

HALT 1324	Turfgrass Science and Management <sup>1</sup>
HALT 1319	Landscape Construction <sup>2</sup>
HALT 1322	Landscape Design <sup>2</sup>

##### Second Semester

HALT 2364	Practicum - Horticultural Services, Operations, and Management (Capstone)
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<sup>1</sup> May substitute HALT 2304, HALT 2308, or HALT 2315

<sup>2</sup> May substitute HALT 1322, HALT 1345, HALT 1351, HALT 2302, HALT 2312, HALT 2314, or HALT 2320

Also a Tech Prep Program

66 credit hours required to graduate

#### Program Coordinators:

Karen Musa . . . . . PRC-F112 . . . . . 972.377.1672

#### Academic Advisor:

Terrence Brennan . . . . . PRC-F143 . . . . . 972.377.1778

Students completing the Hotel/Restaurant Management program at CCCCD will be qualified for a variety of mid-management level positions and career advancement in the hospitality industry. Students in this program may choose from two degree options: Hotel/Restaurant Management degree or Culinary Arts specialization.

The Hotel/Restaurant Management curriculum emphasizes problem-solving, creativity, and industry involvement, in addition to practical on-the-job experience. Upon completion of this degree, the student will have achieved almost 1,000 hours of work experience directly related to this chosen field.

Day and night classes are open-entry courses that provide a flexible schedule and meet a variety of individual needs. These classes may also be taken for continuing education credit.

Students planning to transfer to a college or university should check with the CCCCD academic advisor prior to beginning this program.

#### Accreditation and Transfer

Collin County Community College is seeking accreditation with the Council of Hotel, Restaurant, and Institutional Education (CHRIE), the accrediting body of hospitality programs across the nation, and the American Culinary Federation. Articulation agreements are being developed with nationally recognized hospitality programs such as Cornell University, Johnson & Wales University, Texas Tech University, and the University of Houston.

#### Special Admissions Requirements

- Complete program application procedure
- Complete CCCCD's reading, writing, and mathematics assessments

Additional information and applications for the program may be obtained from the program coordinator or the Business and Computer Sciences Office.

#### Career Opportunities

The Hotel/Restaurant Management degree prepares students for many different job opportunities in a variety of firms including hotels, bed and breakfasts, retirement facilities, restaurants, country clubs, and hospitals. Management and supervisory positions may be found in the following occupational areas:

- Accounting and Finance
- Facilities Management
- Food and Beverage Management
- Human Resources
- Rooms Division
- Sales and Marketing
- Security

### AAS–Hotel/Restaurant Management

66 credit hours

#### FIRST YEAR

##### First Semester

- ENGL 1301 Composition/Rhetoric I*  
 HAMG 1321 Introduction to Hospitality Industry<sup>1</sup>  
 HAMG 1340 Hospitality Legal Issues  
 HAMG 1380 Cooperative Education - Hospitality Administration and Management  
 HAMG 2332 Hospitality Financial Management  
*SPCH 1321 Business and Professional Speaking<sup>2</sup>*

##### Second Semester

- COSC 1300 Computer Essentials*  
*ECON 1301 Introduction to Economics<sup>3</sup>*  
 HAMG 1313 Front Office Procedures  
 HAMG 1324 Hospitality Human Resources Management  
 HAMG 2307 Hospitality Marketing and Sales  
 HAMG 2337 Hospitality Facilities Management

##### Summer

- CULA 1301 Basic Food Preparation  
 RSTO 2405 Management of Food Production and Service

#### SECOND YEAR

##### First Semester

- HAMG 1211 Sanitation and Safety<sup>1,4</sup>  
 HAMG 2305 Hospitality Management and Leadership  
*HUMA 1301 Introduction to the Humanities<sup>5</sup>*  
*MATH 1332 Contemporary Mathematics<sup>6</sup>*  
*PHED/DANC Any activity course<sup>7</sup>*  
*PSYC 2301 General Psychology<sup>8</sup>*  
 TRVM 1327 Hospitality and Special Events

##### Second Semester

- HAMG 2581 Cooperative Education - Hospitality Administration and Management (Capstone)

<sup>1</sup> Tech Prep course which may have been completed in high school.

<sup>2</sup> May substitute SPCH 1311 or SPCH 1315

<sup>3</sup> May substitute ECON 2301 or ECON 2302

<sup>4</sup> Certification in ServSafe

<sup>5</sup> May substitute ARTS 1301, ARTS 1303, ARTS 1304, DRAM 1310, HUMA 1302, MUSI 1306, MUSI 2308, or any PHIL course

<sup>6</sup> May substitute MATH 1324 or MATH 1314 (recommended for transfer students)

<sup>7</sup> May substitute PHED 1338

<sup>8</sup> May substitute PSYC 2302

### Culinary Arts Specialization

71 credit hours

#### FIRST YEAR

##### First Semester

- CULA 1301 Basic Food Preparation  
 CULA 1380 Cooperative Education - Culinary Arts/ Chef Training  
*ENGL 1301 Composition/Rhetoric I*  
 IFWA 1209 Nutrition and Menu Planning  
 HAMG 1211 Sanitation and Safety<sup>1</sup>  
 HAMG 1321 Introduction to Hospitality Industry<sup>1</sup>  
 HAMG 2332 Hospitality Financial Management  
*SPCH 1321 Business and Professional Speaking<sup>2</sup>*

##### Second Semester

- COSC 1300 Computer Essentials*  
 CULA 1341 American Regional Cuisine  
 CULA 1345 International Cuisine  
 CULA 2301 Intermediate Food Preparation  
*ECON 1301 Introduction to Economics<sup>3</sup>*  
 PSTR 1301 Fundamentals of Baking  
 RSTO 2405 Management of Food Production and Service

##### Summer

- MATH 1332 Contemporary Mathematics<sup>4</sup>*

#### SECOND YEAR

##### First Semester

- CULA 2331 Advanced Food Preparation  
 HAMG 1340 Hospitality Legal Issues  
 HAMG 2305 Hospitality Management and Leadership  
 HAMG 2307 Hospitality Marketing and Sales  
*HUMA 1301 Introduction to the Humanities<sup>5</sup>*  
*PHED/DANC Any activity course<sup>6</sup>*  
*PSYC 2301 General Psychology<sup>7</sup>*

##### Second Semester

- CULA 2581 Cooperative Education - Culinary Arts/ Chef Training (Capstone)

<sup>1</sup> Tech Prep course which may have been completed in high school.

<sup>2</sup> May substitute SPCH 1311 or SPCH 1315

<sup>3</sup> May substitute ECON 2301 or ECON 2302

<sup>4</sup> May substitute MATH 1324 or MATH 1314 (recommended for transfer students)

<sup>5</sup> May substitute ARTS 1301, ARTS 1303, ARTS 1304, DRAM 1310, HUMA 1302, MUSI 1306, MUSI 2308, or any PHIL course

NOTE: Italicized course numbers and titles denote AAS Core Curriculum.

<sup>6</sup> May substitute PHED 1338

<sup>7</sup> May substitute PSYC 2302

## CERTIFICATES

### Hotel/Restaurant Management Certificate

27 credit hours

#### FIRST YEAR

##### First Semester

- HAMG 1321 Introduction to Hospitality Industry<sup>1</sup>
- HAMG 1340 Hospitality Legal Issues
- HAMG 2307 Hospitality Marketing and Sales
- HAMG 2332 Hospitality Financial Management

##### Second Semester

- HAMG 1211 Sanitation and Safety<sup>1,2</sup>
- HAMG 2305 Hospitality Management and Leadership
- HAMG 2337 Hospitality Facilities Management
- RSTO 1380 Cooperative Education - Food and Beverage/  
Restaurant Operations Manager (Capstone)
- RSTO 2405 Management of Food Production and Service

<sup>1</sup> Tech Prep course which may have been completed in high school.

<sup>2</sup> Certification in ServSafe

### Hotel Management Specialization

24 credit hours

#### FIRST YEAR

##### First Semester

- HAMG 1321 Introduction to Hospitality Industry<sup>1</sup>
- HAMG 1340 Hospitality Legal Issues
- HAMG 2307 Hospitality Marketing and Sales
- HAMG 2332 Hospitality Financial Management

##### Second Semester

- HAMG 1313 Front Office Procedures
- HAMG 1324 Hospitality Human Resources Management
- HAMG 1380 Cooperative Education - Hospitality  
Administration and Management (Capstone)
- HAMG 2337 Hospitality Facilities Management

<sup>1</sup> Tech Prep course which may have been completed in high school.

### Culinary Arts Specialization

27 credit hours

#### FIRST YEAR

##### First Semester

- CULA 1301 Basic Food Preparation
- CULA 1341 American Regional Cuisine
- CULA 2301 Intermediate Food Preparation
- HAMG 1321 Introduction to Hospitality Industry<sup>1</sup>

#### Second Semester

- CULA 1205 Sanitation and Safety
- CULA 1345 International Cuisine
- CULA 1380 Cooperative Education - Culinary Arts/  
Chef Training (Capstone)
- CULA 2331 Advanced Food Preparation
- RSTO 2405 Management of Food Production and Service

<sup>1</sup> Tech Prep course which may have been completed in high school.

## INTERIOR DESIGN - COMMERCIAL

64 credit hours required to graduate

#### Program Coordinator:

Susan Marshall-Winslow . . .PRC-H217 . . . . .972.377.1716

#### Academic Advisor:

Susan Nethery . . . . .PRC-F142 . . . . .972.377.1779

The Interior Design-Commercial degree program prepares students to enter the profession as an Interior Design Assistant with many types of businesses as well as architectural firms. Because this program includes four semesters of Computer-Aided Drafting and Design (specifically AutoCAD), students are immediately valuable to employers upon graduation. This advanced level of drafting achievement means students can position themselves within firms with licensed architects and licensed interior designers to further their training and development in the commercial interior field.

A professional Interior Designer identifies, researches, and creatively solves problems pertaining to the function and quality of the interior environment. Specialized knowledge needed by the Interior Design Assistant includes space planning, building codes, interior construction, specification writing, types of building materials, and interior furnishings.

Application for licensing by the State of Texas can be made after a given amount of experience and national testing.

Students planning to transfer to a college or university should check with the CCCCD academic advisor prior to beginning this program.

#### Career Opportunities

Graduates of the AAS and certificate programs will be prepared for a position as an Interior Design Assistant. A career in Commercial Interior Design may include designing corporate offices, hospitals, schools, libraries, financial institutions, law firms, etc.

Job opportunities can be found in several types of businesses, including an interior design department within an architectural firm, a design department within a commercial furniture dealer, or a designer for furniture, fabrics, wall coverings, or floor coverings manufacturers. Large corporations also have in-house interior designers for the many changes offices experience today.

## AAS-Interior Design-Commercial

64 credit hours

### FIRST YEAR

#### First Semester

*COSC 1300 Computer Essentials*

DFTG 1309 Basic Computer-Aided Drafting

*ENGL 1301 Composition/Rhetoric I*

INDS 1311 Fundamentals of Interior Design

INDS 1351 History of Interiors I

#### Second Semester

DFTG 1352 Intermediate Computer-Aided Drafting

INDS 1315 Materials, Methods, and Estimating

INDS 1349 Fundamentals of Space Planning

*PHED/DANC Any activity course<sup>1</sup>*

*SPCH 1311 Fundamentals of Speech Communication<sup>2</sup>*

Elective\*

#### Summer

*HUMA 1301 Introduction to the Humanities*

### SECOND YEAR

#### First Semester

DFTG 1305 Technical Drafting

INDS 1345 Commercial Design I

INDS 2330 Interior Design Building Systems

*MATH 1314 College Algebra*

*PSYC 2302 Applied Psychology<sup>3</sup>*

#### Second Semester

BUSI 1301 Introduction to Business

DFTG 1354 Architectural Drafting - Commercial

*ECON 1301 Introduction to Economics<sup>4</sup>*

INDS 2331 Commercial Design II (Capstone)

INDS 2337 Portfolio Presentation

<sup>1</sup> May substitute PHED 1338

<sup>2</sup> May substitute SPCH 1315 or SPCH 1321

<sup>3</sup> May substitute PSYC 2301

<sup>4</sup> May substitute ECON 2301 or ECON 2302

\* Electives (3 credit hours): BMGT 1303, BUSI 2301, DFTG 2312, DFTG 2332, DFTG 2336, or INDS 1380

## Interior Design-Commercial Certificate

36 credit hours

### FIRST YEAR

#### First Semester

DFTG 1309 Basic Computer-Aided Drafting

INDS 1311 Fundamentals of Interior Design

INDS 1351 History of Interiors I

### Second Semester

DFTG 1352 Intermediate Computer-Aided Drafting

INDS 1315 Materials, Methods, and Estimating

INDS 1349 Fundamentals of Space Planning

### SECOND YEAR

#### First Semester

DFTG 1305 Technical Drafting

INDS 1345 Commercial Design I

INDS 2330 Interior Design Building Systems

#### Second Semester

DFTG 1354 Architectural Drafting - Commercial

INDS 2331 Commercial Design II (Capstone)

INDS 2337 Portfolio Presentation

## INTERPRETER PREPARATION PROGRAM/DEAF

Also see American Sign Language, page 49.

70 credit hours required to graduate

#### Program Coordinator:

Helene Cohen-Gilbert . . . .SCC-B135 . . . . .972.881.5152  
(TTY) 972.881.5138

#### Academic Advisor:

Todd Fields . . . . .SCC-G105 . . . . .972.881.5903

Because of the passage of the Americans with Disabilities Act, there is currently a national and statewide shortage of interpreters. Moreover, the quality as well as the quantity of the interpreters that the market demands is increasing.

The Interpreter Preparation Program/Deaf (IPPD) provides a focused and balanced education for students who desire to become Sign Language Interpreters. With an emphasis on receptive skills, the program concentrates on synthesizing the study of American Sign Language (ASL), Deaf culture, and interpreting as a profession. Interpreting requires excellence in ASL and a thorough knowledge of oneself and one's ethics because interpreters are privy to confidential information.

CCCCD's Interpreter Preparation Program has a greater number of deaf teachers and lab technicians than non-deaf teachers and lab technicians, which allows students the opportunity to become fluent in ASL and to develop culturally appropriate behaviors and responses.

Students planning to transfer to a college or university should check with the CCCC academic advisor prior to beginning this program.

NOTE: Italicized course numbers and titles denote AAS Core Curriculum.



## Pass/Fail Option

Non-degree-seeking students may take a Sign Language class as Pass/Fail. Degree-seeking students should not pursue this option. The Pass/Fail Option will not satisfy the following:

- Degree-seeking transfer requirements
- IPPD special admissions/continuation requirement

*NOTE: Students may not convert a Pass/Fail grade to a letter grade. Foreign language classes, including sign language, cannot be audited. See page 18 for details.*

## Special Admissions Requirements

1. Complete of the Interpreter Preparation Program packet (IPP packet), which includes:
  - Official transcripts submitted to the CCCCD Admissions and Records Office
  - Application to the Interpreter Preparation Program, which is available from the program coordinator
  - Current reading, writing, and math assessment scores
2. Demonstrate minimum competencies in reading, writing, and mathematics. For program entry, students must assess into:
  - READ 1100 or higher
  - ENGL 0305 or higher
  - MATH 0305 or higher
3. Complete the 36 credit-hour certificate program (see page 102) with a 2.5 or higher GPA. The certificate program includes successful completion or demonstrated competencies in:
  - SGNL 1401 American Sign Language (ASL): Beginning I
  - SGNL 1402 American Sign Language (ASL): Beginning II
  - SGNL 2401 American Sign Language (ASL): Intermediate I
  - SGNL 2402 American Sign Language (ASL): Intermediate II
4. Successfully pass IPPD Language Assessment, and participate in a personal interview to assess American Sign Language (ASL) language skills.

## Continuation Requirements

Beginning with SGNL 2401, the student must maintain at least a “B” average in each IPPD course in order to continue in the degree or certificate program.

## Program Exit Requirements

In order to graduate with a certificate or an AAS degree, the student must demonstrate the ability to:

- Interpret between 100-120 wpm
- Transliterate between 100-120 wpm
- Voice interpret with 85-100% accuracy

## Career Opportunities

The career opportunities for persons with an IPPD Associate of Applied Science degree and appropriate certification are broad and varied and include educational, medical, legal, mental health, and community-based employment. In addition, many interpreters are self-employed and work as independent contractors.

Career opportunities for persons with an Interpreter Trainee certificate are more limited.

## AAS – Interpreter Preparation Program/Deaf

70 credit hours

### FIRST YEAR

#### First Semester

SGNL 1401 American Sign Language (ASL): Beginning I<sup>+</sup>  
 ENGL 1301 *Composition/Rhetoric I*  
 MATH 1332 *Contemporary Mathematics*<sup>1</sup>  
 COSC 1300 *Computer Essentials*  
 SPCH 1311 *Fundamentals of Speech Communication*<sup>2</sup>

#### Second Semester

SGNL 1402 American Sign Language (ASL): Beginning II<sup>+</sup>  
 SLNG 1371 Expressive and Receptive Fingerspelling and Numbers  
 SLNG 1447 Deaf Culture  
 PHED/DANC *Any Activity Course*<sup>3</sup>  
 Technical Core<sup>4</sup>

#### Summer

PHIL 2306 *Introduction to Ethics*<sup>5</sup>  
 SGNL 2401 American Sign Language (ASL): Intermediate I<sup>+</sup>

### SECOND YEAR

#### First Semester

SGNL 2402 American Sign Language (ASL): Intermediate II<sup>+</sup>  
 SLNG 1321 Introduction to the Interpreting Profession  
 BUSG 2309 *Small Business Management*<sup>6</sup>  
 PSYC 2302 *Applied Psychology*<sup>7</sup>  
 Elective<sup>\*</sup>

#### Second Semester

SLNG 2301 Interpreting I  
 SLNG 2266 Practicum I - Sign Language Interpreter  
 Technical Core<sup>4</sup>

#### Summer

SLNG 2378 Sign to Voice  
 SLNG 2311 Specialized Interpreting/Transliterating  
 SLNG 2267 Practicum II - Sign Language Interpreter (Capstone)

<sup>+</sup> American Sign Language courses are also transfer courses and may be used, at some institutions, to satisfy a Foreign Language requirement.

<sup>1</sup> May substitute MATH 1324 or MATH 1314 (recommended for transfer students)

...Continued on Next Page

NOTE: The second digit in a course number indicates the credit hours for that course.

61 credit hours required to graduate

**Program Coordinator:**

Russell Kunz . . . . .PRC-H230C . . . . .972.377.1702

**Academic Advisor:**

Terrence Brennan . . . . .PRC-F143 . . . . .972.377.1778

Management Development is no longer a field just for people who desire to be managers. Today organizations are empowering all individuals, giving them more responsibility and requiring more knowledge.

CCCCD's Management Development degree provides students the ability to relate with others, the skills to work in a team, the knowledge to initiate change, and the experience to solve problems. Topics include basic management foundations and theories, human resources management, human relations training, financial management, and capital acquisition skills.

This degree is also excellent for people who wish to major in another field but need some business and management skills. All organizations have a business approach which requires that individuals be adept at planning, organizing, leading, and controlling the many activities that accompany a successful business venture.

The Criminal Justice specialization is designed for law enforcement officers who want to be promoted in rank but lack the sufficient transferable coursework in a related field. The program will transfer directly to UNT or other universities with similar programs and will prepare officers to be promoted into supervision/management positions. This specialization focuses more on a general academic study of criminal justice.

The Project Management certificate was designed for people who work in fields where this knowledge, in addition to their primary degree work, is required to obtain a job. The course contents were created from recommendations by members of the Project Management Institute and will provide individuals with the necessary skills in negotiation and conflict management, process planning and outcome management, and various measures of control and costing.

Students planning to transfer to a college or university should check with the CCCC academic advisor prior to beginning this program.

**Career Opportunities**

Every business and organization has leaders and/or people who perform leadership tasks. Therefore, this degree can apply to any field including government and public service.

- <sup>2</sup> May substitute SPCH 1315 or SPCH 1321
- <sup>3</sup> It is recommended the IPPD student take PHED 1338
- <sup>4</sup> Technical Core: Students MUST select two (2) of the following courses (6 credit hours) with the approval of the program coordinator: ANTH 2351, DRAM 1351, ENGL 1302, SPCH 1315, or SPCH 1321
- <sup>5</sup> PHIL 2306 is recommended for IPPD majors, but student may substitute ARTS 1301, ARTS 1303, ARTS 1304, DRAM 1310, MUSI 1306, MUSI 2308, or any PHIL course
- <sup>6</sup> BUSG 2309 is recommended for IPPD majors, but student may substitute ECON 1301, ECON 2301, or ECON 2302
- <sup>7</sup> May substitute PSYC 2301
- \* Elective (3 credit hours): Students must contact the program coordinator before choosing one of the following courses: BMGT 2309, BUSI 1307, CRIJ 1306, CRIJ 1313, SRGT 1301, SLNG 1391, SOCI 1306, SOCI 2319

**CERTIFICATE**

**Interpreter Trainee Certificate**

36 credit hours

**FIRST YEAR**

**First Semester**

SGNL 1401 American Sign Language (ASL): Beginning I+

SLNG 1447 Deaf Culture

*PHED/DANC Any Activity Course<sup>l</sup>*

Elective\*

**Second Semester**

SGNL 1402 American Sign Language (ASL): Beginning II+

SLNG 1371 Expressive and Receptive Fingerspelling and Numbers

Elective\*

Elective\*

**Summer**

SGNL 2401 American Sign Language (ASL): Intermediate I+

**SECOND YEAR**

**First Semester**

SGNL 2402 American Sign Language (ASL): Intermediate II+

SLNG 1321 Introduction to the Interpreting Profession (Capstone)

<sup>+</sup> American Sign Language courses are also transfer courses and may be used to satisfy a Foreign Language requirement.

<sup>1</sup> May substitute PHED 1338

\* Electives (9 credit hours): ANTH 2351, BMGT 2309, BUSI 1307, DRAM 1351, ENGL 1301, ENGL 1302, PSYC 2301, PSYC 2302, SOCI 1306, SOCI 2319, SPCH 1311, or SPCH 1315 (Only one elective option under PSYC and SPCH will be accepted.)

*NOTE: Degree-seeking students will take the IPPD Language Assessment after completing the IPPD certificate.*

NOTE: Italicized course numbers and titles denote AAS Core Curriculum.

## AAS – Management Development

61 credit hours

### FIRST YEAR

#### First Semester

BMGT 1303 Principles of Management  
BMGT 1307 High Performance Work Teams  
*COSC 1300 Computer Essentials*  
*ENGL 1301 Composition/Rhetoric I*  
*HUMA 1301 Introduction to the Humanities<sup>1</sup>*

#### Second Semester

ACCT 2301 Financial Accounting  
BMGT 1301 Supervision  
*ECON 1301 Introduction to Economics<sup>2</sup>*  
*MATH 1332 Contemporary Mathematics<sup>3</sup>*  
*PHED/DANC Any activity course<sup>4</sup>*  
*SPCH 1311 Fundamentals of Speech Communication<sup>5</sup>*

### SECOND YEAR

#### First Semester

BMGT 2331 Total Quality Management  
BMGT 2341 Strategic Management  
BMGT 2310 Financial Management  
ITSW 1304 Introduction to Spreadsheets - Excel  
*PSYC 2302 Applied Psychology<sup>6</sup>*

#### Second Semester

BMGT 2309 Leadership  
BMGT 2311 Management of Change  
BMGT 2382 Cooperative Education - Business Administration and Management, General (Capstone)  
HRPO 2301 Human Resources Management  
QCTC 1303 Quality Control

<sup>1</sup> May substitute ARTS 1301, ARTS 1303, ARTS 1304, DRAM 1310, HUMA 1302, MUSI 1306, MUSI 2308, or any PHIL course

<sup>2</sup> May substitute ECON 2301 or ECON 2302

<sup>3</sup> May substitute MATH 1324 or MATH 1314 (recommended for transfer students)

<sup>4</sup> May substitute PHED 1338

<sup>5</sup> May substitute SPCH 1315 or SPCH 1321

<sup>6</sup> May substitute PSYC 2301

## Criminal Justice Specialization

61 credit hours

### FIRST YEAR

#### First Semester

BMGT 1303 Principles of Management  
BMGT 1307 High Performance Work Teams  
*COSC 1300 Computer Essentials*

*ENGL 1301 Composition/Rhetoric I*

*HUMA 1301 Introduction to the Humanities<sup>1</sup>*

### Second Semester

BMGT 1301 Supervision  
*ECON 1301 Introduction to Economics<sup>2</sup>*  
CRIJ 1301 Introduction to Criminal Justice<sup>3</sup>  
*MATH 1332 Contemporary Mathematics<sup>4</sup>*  
*SPCH 1311 Fundamentals of Speech Communication<sup>5</sup>*

### SECOND YEAR

#### First Semester

BMGT 2331 Total Quality Management  
BMGT 2310 Financial Management  
CRIJ 1306 Court Systems and Practices  
CRIJ 2323 Legal Aspects of Law Enforcement  
*PHED/DANC Any activity course<sup>6</sup>*  
*PSYC 2302 Applied Psychology<sup>7</sup>*

#### Second Semester

BMGT 2311 Management of Change  
BMGT 2382 Cooperative Education - Business Administration and Management, General (Capstone)<sup>8</sup>  
CRIJ 1307 Crime in America<sup>3</sup>  
BMGT 2309 Leadership  
HRPO 2301 Human Resources Management

<sup>1</sup> May substitute ARTS 1301, ARTS 1303, ARTS 1304, DRAM 1310, HUMA 1302, MUSI 1306, MUSI 2308, or any PHIL course

<sup>2</sup> May substitute ECON 2301 or ECON 2302

<sup>3</sup> Tech Prep course which may have been completed in high school.

<sup>4</sup> May substitute MATH 1324 or MATH 1314 (recommended for transfer students)

<sup>5</sup> May substitute SPCH 1315 or SPCH 1321

<sup>6</sup> May substitute PHED 1338

<sup>7</sup> May substitute PSYC 2301

<sup>8</sup> May substitute CRIJ 2389

### CERTIFICATES

#### Management Development Certificate with Criminal Justice Specialization

15 credit hours

### FIRST YEAR

#### First Semester

BMGT 1303 Principles of Management  
BMGT 1301 Supervision  
CRIJ 1301 Introduction to Criminal Justice<sup>1</sup>

#### Second Semester

BMGT 2309 Leadership (Capstone)  
CRIJ 1307 Crime in America<sup>1</sup>

<sup>1</sup> Tech Prep course which may have been completed in high school.

### Management Development Certificate with Human Resources Management Specialization

15 credit hours

#### FIRST YEAR

##### First Semester

BMGT 1303 Principles of Management  
BMGT 1307 High Performance Work Teams  
QCTC 1303 Quality Control

##### Second Semester

BMGT 2309 Leadership (Capstone)  
HRPO 2301 Human Resources Management

### Management Development Certificate with Quality Management Specialization

15 credit hours

#### FIRST YEAR

##### First Semester

BMGT 1301 Supervision  
BMGT 1303 Principles of Management  
QCTC 1303 Quality Control

##### Second Semester

BMGT 2309 Leadership (Capstone)  
BMGT 2331 Total Quality Management

### Management Development Certificate with Strategic Management Specialization

18 credit hours

#### FIRST YEAR

##### First Semester

BMGT 1303 Principles of Management  
BMGT 2311 Management of Change  
QCTC 1303 Quality Control

##### Second Semester

BMGT 2309 Leadership (Capstone)  
BMGT 2341 Strategic Management  
BMGT 2310 Financial Management

### Project Management Certificate

18 credit hours

#### FIRST YEAR

##### First Semester

BMGT 2311 Management of Change  
BMGT 1370 Negotiations and Conflict Management  
BMGT 1372 Project Management

##### Second Semester

QCTC 1303 Quality Control  
BMGT 2309 Leadership (Capstone)  
BMGT 2370 Project Scope and Risk Management

## MARKETING

61 credit hours required to graduate

#### Program Coordinator:

Gloria Cockerell . . . . . SCC-J247 . . . . . 972.881.5736

#### Academic Advisor:

Terrence Brennan . . . . . PRC-F143 . . . . . 972.377.1778

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 and to provide methods for improving skills for people already employed in a marketing career. Marketing students who have questions should visit with the program coordinator.

Students planning to transfer to a college or university should check with the CCCCD academic advisor prior to beginning this program.

#### Career Opportunities

Marketing provides the essential core of marketing practices and prepares students for positions in:

- Advertising
- Consulting
- Customer Service
- Directing
- E-Commerce
- Industrial Marketing Management
- International Marketing
- Marketing Management
- Promotion
- Retailing
- Sales
- Sales Management
- Wholesaling

#### AAS – Marketing

61 credit hours

#### FIRST YEAR

##### First Semester

*ENGL 1301 Composition/Rhetoric I*  
*MATH 1332 Contemporary Mathematics<sup>1</sup>*  
MRKG 1311 Principles of Marketing  
*SPCH 1311 Fundamental of Speech Communication<sup>2</sup>*  
Elective\*

##### Second Semester

*PSYC 2302 Applied Psychology<sup>3</sup>*  
ACCT 2301 Financial Accounting  
BMGT 1333 Principles of Selling

NOTE: Italicized course numbers and titles denote AAS Core Curriculum.



BMGT 1349 Advertising and Sales Promotion  
 HUMA 1301 *Introduction to the Humanities*<sup>4</sup>  
 PHED/DANC *Any activity course*<sup>5</sup>

**SECOND YEAR**

**First Semester**

COSC 1300 *Computer Essentials*  
 IBUS 1354 International Marketing Management  
 BUSG 2309 Small Business Management  
 BMGT 1396 Special Topics: Sales Management  
 BMGT 1305 Communications in Management

**Second Semester**

BMGT 1302 Principles of Retailing  
 ECON 1301 *Introduction to Economics*<sup>6</sup>  
 BMGT 1348 Marketing Research and Strategies  
 MRKG 1391 Special Topics in Business Marketing and  
 Marketing Management  
 MRKG 2381 Cooperative Education - Business Marketing and  
 Marketing Management (Capstone)

<sup>1</sup> May substitute MATH 1324 or MATH 1314 (recommended for transfer students)  
<sup>2</sup> May substitute SPCH 1315 or SPCH 1321  
<sup>3</sup> May substitute PSYC 2301  
<sup>4</sup> May substitute ARTS 1301, ARTS 1303, ARTS 1304, DRAM 1310, HUMA 1302, MUSI 1306, MUSI 2308, or any PHIL course  
<sup>5</sup> May substitute PHED 1338  
<sup>6</sup> May substitute ECON 2301 or ECON 2302  
 \* Electives (3 credit hours): ARTC 1305, ARTC 2311, BMGT 1307, COMM 1307, or MRKG 1380

**CERTIFICATES**

**Marketing Certificate with Retailing Specialization**

18 credit hours

**FIRST YEAR**

**First Semester**

BMGT 1333 Principles of Selling  
 BMGT 1349 Advertising and Sales Promotion  
 MRKG 1311 Principles of Marketing

**Second Semester**

BMGT 1302 Principles of Retailing  
 BMGT 1348 Marketing Research and Strategies  
 MRKG 1391 Special Topics in Business Marketing and  
 Marketing Management

**CAPSTONE: Comprehensive portfolio**

**Marketing Certificate with Sales Management Specialization**

18 credit hours

**FIRST YEAR**

**First Semester**

BMGT 1333 Principles of Selling  
 BMGT 1349 Advertising and Sales Promotion  
 MRKG 1311 Principles of Marketing

**Second Semester**

BMGT 1307 High Performance Work Teams<sup>1</sup>  
 BUSG 2309 Small Business Management  
 MRKG 1391 Special Topics in Business Marketing and  
 Marketing Management

**CAPSTONE: Comprehensive portfolio**

<sup>1</sup> May substitute IBUS 1354

**MUSIC, COMMERCIAL**

Also see Music, page 56.

62 credit hours required to graduate

**Program Coordinator:**

Brian Allison . . . . . SCC-B182 . . . . . 972.881.5813

**Academic Advisor:**

Todd Fields . . . . . SCC-G105 . . . . . 972.881.5903

CCCCD's Commercial Music program provides career training in performance, audio engineering and sound reinforcement, electronic music, and composition/songwriting. Internship opportunities are available through the Cooperative Work Experience program for practical training in the field.

Many CCCC graduates perform professionally or work in recording studios, tape duplication and editing facilities, or sound reinforcement companies. Others elect to transfer upon degree completion to a college or university for further studies and specialization.

Students planning to transfer to a college or university should check with the CCCC academic advisor prior to beginning this program.

**Career Opportunities**

The Commercial Music program prepares students for positions in:

- Audio Duplication/Manufacturing
- Audio Engineering
- Digital Audio Editing
- Instrumental/Vocal Arranging
- Jingle Composition
- Music Marketing
- Music Transcribing

...Continued on Next Page

NOTE: The second digit in a course number indicates the credit hours for that course.

- Performance
- Studio Management
- Synthesizer Programming

### AAS – Commercial Music

62 credit hours

#### FIRST YEAR

##### First Semester

- COSC 1300 Computer Essentials*  
 MUSC 1327 Audio Engineering I  
 MUSI 1301 Music Fundamentals  
 MUSI 1171 Leisure Piano I<sup>1</sup>  
 MUSB 1305 Survey of the Music Business  
 Elective\*

##### Second Semester

- MUSC 1213 Commercial Music Theory I<sup>2</sup>  
 MUSC 1215 Music Performance Ear Training I<sup>2</sup>  
 MUSI 1172 Leisure Piano II<sup>3</sup>  
 Elective\*  
 Elective\*  
 Elective\*  
 Elective\*

#### SECOND YEAR

##### First Semester

- MUSC 1331 Musical Instrument Digital Interface (MIDI) I  
*ENGL 1301 Composition/Rhetoric I*  
*MATH 1314 College Algebra*  
 Elective\*  
 Elective\*

##### Second Semester

- MUSI 2308 Introduction to Music Literature<sup>4</sup>*  
 MUSB 2380 Cooperative Education - Music Business  
 Management and Merchandising (Capstone)  
*PSYC 2301 General Psychology<sup>5</sup>*  
*PHED/DANC Any activity course<sup>6</sup>*  
 Elective\*  
 Elective\*

<sup>1</sup> May substitute MUSI 1181

<sup>2</sup> Student must either take MUSC 1213 and MUSC 1215 OR MUSI 1116 and MUSI 1311

<sup>3</sup> May substitute MUSI 1182

<sup>4</sup> Required to fulfill the core requirement in Fine Arts for Music, Commercial majors

<sup>5</sup> May substitute PSYC 2302

<sup>6</sup> May substitute PHED 1338

\* Electives (select 25 credit hours): Any MUAP course (maximum of 8 credit hours), any MUEN/MUSP course (combination not to exceed 4 credit hours), MUSB 1301, MUSB 2301, MUSC 1209,

MUSC 1303, MUSC 1321, MUSC 1329, MUSC 1333, MUSC 2314, MUSC 2330, MUSC 2343, MUSC 2351, MUSC 2405, MUSC 2427, MUSC 2447, MUSC 2448, MUSI 1117, MUSI 1183, MUSI 1184, MUSI 1192, MUSI 1193, MUSI 1312, MUSI 1386, MUSI 2116, MUSI 2117, MUSI 2181, MUSI 2182, MUSI 2311, or MUSI 2312

#### CERTIFICATE

##### Audio Engineering Certificate

31 credit hours

#### FIRST YEAR

##### First Semester

- MUSC 1327 Audio Engineering I<sup>1</sup>  
 MUSC 2405 Sound Reinforcement Systems Technology  
 MUSC 2427 Audio Engineering II<sup>1</sup>  
 MUSB 1305 Survey of the Music Business  
 Elective\*

##### Second Semester

- MUSB 2301 Music Merchandising and Marketing  
 MUSC 2343 Audio Engineering Electronics  
 Troubleshooting  
 MUSC 2447 Audio Engineering III<sup>1</sup>  
 MUSC 2448 Audio Engineering IV<sup>1</sup>

<sup>1</sup> Taught in eight-week format

\* Electives (3 credit hours): MUSC 1331, MUSI 1301, MUSC 1303, MUSC 1333, MUSC 1213, MUSC 1215, MUSB 2309, MUSB 1301, or MUSC 2351

#### NURSING

72 credit hours required to graduate

##### Program Director:

Vivian Lilly . . . . .CPC-E310 . . . . .972.548.6883

##### Academic Advisor:

Lynne Meyer . . . . .CPC-A108B . . . . .972.548.6778

CCCCD's Associate Degree Nursing Program prepares students to make application to the Board of Nurse Examiners for licensure as a registered nurse. The nursing curriculum is approved by the Board of Nurse Examiners for the State of Texas and accredited by the National League for Nursing. Students must meet eligibility requirements for licensure as established by the Board of Nurse Examiners for the State of Texas. If an individual has reason to believe he is ineligible for licensure, he may petition the Board for a declaratory order. This should be done prior to entering the program. Contact the program director for further information.

The course of study consists of approved nursing courses from the Workforce Education Course Manual of Texas. These courses must be taken in sequence to assure progression of content from simple to complex.

NOTE: Italicized course numbers and titles denote AAS Core Curriculum.

Collin County healthcare facilities enthusiastically support the ADN program. Several healthcare facilities throughout the Metroplex are used for the clinical experience. The role of the nurse continues to change in an evolving healthcare system. Students are also given varied experiences in community-focused care.

Students planning to transfer to a college or university should check with the CCCCD academic advisor prior to beginning this program.

### Accreditation

The National League for Nursing Accrediting Commission has recently granted continued re-accreditation to the nursing program for eight years. They may be contacted at:

61 Broadway  
New York, NY 10006  
212.363.5555 ext. 153

### 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 college's Financial Aid Office.

### Special Admissions Requirements

- Complete pre-entrance course requirements with a minimum 2.5 GPA
- Earn a GPA of 2.5 or greater on all courses applicable to the Nursing program
- Submit official copies of all college transcripts
- Complete the PSB (Nursing School Aptitude Exam) prior to January 31 with a satisfactory result

Admission to the Nursing program is selective. Admission to the college does not guarantee admission to the Nursing program. Registration is by permission only. Information and applications may be obtained from the program coordinator or the Social Sciences, Health, and Public Services Office.

Placement in mathematics and English courses is based upon the results of each student's assessments and subjects completed before admission.

### Pre-Nursing Work Experience (RNSG 1266)

This optional work-based academic course is available to provide exposure to the nursing field. Although it is not a pre-requisite for entry into the AAS in Nursing program, and the credit earned (2 credit hours) is not part of the AAS in Nursing program, passing this course does result in a Nurse Assistant Certificate and valuable work experience.

## AAS – Nursing

72 credit hours

### Pre-Entrance Requirements

*BIOL 2401 Anatomy and Physiology I*  
*BIOL 2402 Anatomy and Physiology II*  
*BIOL 2420 Microbiology*  
*MATH 1314 College Algebra<sup>1</sup>*

### FIRST YEAR

#### First Semester

*ENGL 1301 Composition/Rhetoric I*  
*PSYC 2301 General Psychology*  
RNSG 1205 Nursing Skills I  
RNSG 1360 Clinical I - Nursing (R.N. Training)  
RNSG 1523 Introduction to Professional Nursing

#### Second Semester

PSYC 2314 Life Span Psychology  
RNSG 1144 Nursing Skills II  
RNSG 2404 Care of the Client with Common Health Care Needs  
RNSG 2361 Clinical II - Nursing (R.N. Training)

#### Summer

RNSG 1347 Concepts of Clinical Decision-Making  
RNSG 2161 Clinical III - Nursing (R.N. Training)

### SECOND YEAR

#### First Semester

RNSG 2221 Management of Client Care  
RNSG 2414 Care of the Client with Complex Health Care Needs  
RNSG 2462 Clinical IV - Nursing (R.N. Training)  
SOC1 1301 Introduction to Sociology<sup>2</sup>

#### Second Semester

*HUMA 1301 Introduction to the Humanities<sup>3</sup>*  
RNSG 2207 Transition to Nursing Practice (Capstone)  
RNSG 2435 Integrated Client Care Management  
RNSG 2463 Clinical V - Nursing (R.N. Training)

<sup>1</sup> May substitute MATH 1324 or MATH 1342

<sup>2</sup> May substitute SOCI 1306 or SOCI 2371

<sup>3</sup> May substitute ARTS 1301, ARTS 1303, ARTS 1304, DRAM 1310, HUMA 1302, MUSI 1306, MUSI 2308, or any PHIL course

Also a Tech Prep Program

63 credit hours required to graduate

**Program Coordinators:**

Diana Ramsower . . . . .SCC-J117 . . . . .972.881.5835

Mary Jane Tobaben . . . . .SCC-J116 . . . . .972.881.5170

**Academic Advisor:**

Terrence Brennan . . . . .PRC-F143 . . . . .972.377.1778

The Office Systems Technology program is designed to incorporate both the technical and behavioral aspects of careers in the general, legal, or medical fields. Areas of study include: office keyboarding skills; word processing; proofreading/editing; records management; transcription; financial responsibilities; business communications; database, presentation, and spreadsheet software; office management; legal document production; legal transcription; medical records management; and medical transcription.

Some of the courses required for this AAS 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 CCCCD to be applied toward the AAS degree in Office Systems Technology.

Tech Prep students who took collegiate-level courses in Office Systems Technology while in high school may elect to receive college credit by contacting a CCCCD academic advisor. A petition for Tech Prep credit should be completed as soon as possible upon admission to CCCCD.

Students planning to transfer to a college or university should check with the CCCCD academic advisor prior to beginning this program.

**Career Opportunities**

Job opportunities in the Office Systems Technology field include:

- Accounting Clerk
- Administrative Assistant/Secretary
- Human Resources Assistant
- Legal Office Support
- Medical Insurance Claims Support
- Medical Office Support
- Medical Transcriptionist
- Receptionist
- Virtual Office Assistant
- Word Processing Specialist

**AAS – Office Systems Technology**

63 credit hours

**FIRST YEAR**

**First Semester**

*COSC 1300 Computer Essentials*

*ENGL 1301 Composition/Rhetoric I*

POFT 1319 Records and Information Management I

POFT 1377 Proofreading and Editing

POFT 2301 Document Formatting and Skillbuilding<sup>1,2</sup>

**Second Semester**

ACNT 1303 Introduction to Accounting I

*MATH 1332 Contemporary Mathematics<sup>3</sup>*

*PHED/DANC Any activity course<sup>4</sup>*

POFI 2301 Word Processing - MS Word 2000

POFT 2203 Speed and Accuracy Building

*PSYC 2302 Applied Psychology<sup>5</sup>*

**Summer**

*HUMA 1301 Introduction to the Humanities<sup>6</sup>*

POFT 2333 Advanced Document Formatting and Skillbuilding

**SECOND YEAR**

**First Semester**

*ECON 1301 Introduction to Economics<sup>7</sup>*

ITSC 1309 Integrated Software Applications I - MS Office<sup>1</sup>

POFT 2321 Machine Transcription

Elective\*

Elective\*

**Second Semester**

POFT 1349 Administrative Office Procedures II (Capstone)

*SPCH 1311 Fundamentals of Speech Communication<sup>8</sup>*

Elective\*

Elective\*

<sup>1</sup> Tech prep course which may have been completed in high school.

<sup>2</sup> Prerequisite: POFT 1329 (see Footnote 1 above) or consent of program coordinator

<sup>3</sup> May substitute MATH 1314 or MATH 1324

<sup>4</sup> May substitute PHED 1338

<sup>5</sup> May substitute PSYC 2301

<sup>6</sup> May substitute ARTS 1301, ARTS 1303, ARTS 1304, DRAM 1310, HUMA 1302, MUSI 1306, MUSI 2308, or any PHIL course

<sup>7</sup> May substitute ECON 2301 or ECON 2302

<sup>8</sup> May substitute SPCH 1315 or SPCH 1321

\* Electives (12 credit hours): BMGT 2309, ITSC 1321, ITSW 1304, ITSW 1307, POFI 1301, POFI 2331, POFT 1302, POFT 1380, or POFT 2380



## Legal Office Support Specialization

63 credit hours

### FIRST YEAR

#### First Semester

*COSC 1300 Computer Essentials*  
*ENGL 1301 Composition/Rhetoric I*  
POFT 1319 Records and Information Management I  
POFT 1377 Proofreading and Editing  
POFT 2301 Document Formatting and Skillbuilding<sup>1,2</sup>

#### Second Semester

LGLA 1307 Introduction to Law and Legal Profession  
*MATH 1332 Contemporary Mathematics*<sup>3</sup>  
*PHED/DANC Any activity course*<sup>4</sup>  
POFI 1301 Computer Applications I - WordPerfect 9  
POFT 2203 Speed and Accuracy Building  
*PSYC 2302 Applied Psychology*<sup>5</sup>

#### Summer

*HUMA 1301 Introduction to the Humanities*<sup>6</sup>  
POFL 2301 Legal Document Processing

### SECOND YEAR

#### First Semester

*ECON 1301 Introduction to Economics*<sup>7</sup>  
ITSC 1309 Integrated Software Applications I - MS Office<sup>1</sup>  
POFL 1359 Legal Transcription  
Elective\*  
Elective\*

#### Second Semester

POFT 1349 Administrative Office Procedures II (Capstone)  
*SPCH 1311 Fundamentals of Speech Communication*<sup>8</sup>  
Elective\*  
Elective\*

- <sup>1</sup> Tech prep course which may have been completed in high school.  
<sup>2</sup> Prerequisite: POFT 1329 (see Footnote 1 above) or consent of the program coordinator  
<sup>3</sup> May substitute MATH 1314 or MATH 1324  
<sup>4</sup> May substitute PHED 1338  
<sup>5</sup> May substitute PSYC 2301  
<sup>6</sup> May substitute ARTS 1301, ARTS 1303, ARTS 1304, DRAM 1310, HUMA 1302, MUSI 1306, MUSI 2308, or any PHIL course  
<sup>7</sup> May substitute ECON 2301 or ECON 2302  
<sup>8</sup> May substitute SPCH 1315 or SPCH 1321  
\* Electives (12 credit hours): ACNT 1303, BMGT 2309, ITSC 1321, ITSW 1304, ITSW 1307, POFI 2301, POFI 2331, POFL 1380, or POFT 1302

## Medical Office Support Specialization

63 credit hours

### FIRST YEAR

#### First Semester

*ENGL 1301 Composition/Rhetoric I*  
POFT 1319 Records and Information Management I  
POFT 1377 Proofreading and Editing  
POFT 2301 Document Formatting and Skillbuilding<sup>1,2</sup>  
SRGT 1301 Medical Terminology I

#### Second Semester

*COSC 1300 Computer Essentials*  
*MATH 1332 Contemporary Mathematics*<sup>3</sup>  
*PHED/DANC Any activity course*<sup>4</sup>  
POFI 1301 Computer Applications I - WordPerfect 9  
POFT 2203 Speed and Accuracy Building  
*PSYC 2302 Applied Psychology*<sup>5</sup>

#### Summer

*HUMA 1301 Introduction to the Humanities*<sup>6</sup>  
POFM 2333 Medical Document Production

### SECOND YEAR

#### First Semester

*ECON 1301 Introduction to Economics*<sup>7</sup>  
ITSC 1309 Integrated Software Applications I - MS Office<sup>1</sup>  
POFM 1321 Medical Law and Ethics for Office Personnel  
POFM 1353 Medical Coding  
Elective\*

#### Second Semester

POFM 1331 Medical Transcription I  
POFT 1349 Administrative Office Procedures II (Capstone)  
*SPCH 1311 Fundamentals of Speech Communication*<sup>8</sup>  
Elective\*

- <sup>1</sup> Tech prep course which may have been completed in high school.  
<sup>2</sup> Prerequisite: POFT 1329 (see Footnote 1 above) or consent of the program coordinator  
<sup>3</sup> May substitute MATH 1314 or MATH 1324  
<sup>4</sup> May substitute PHED 1338  
<sup>5</sup> May substitute PSYC 2301  
<sup>6</sup> May substitute ARTS 1301, ARTS 1303, ARTS 1304, DRAM 1310, HUMA 1302, MUSI 1306, MUSI 2308, or any PHIL course  
<sup>7</sup> May substitute ECON 2301 or ECON 2302  
<sup>8</sup> May substitute SPCH 1315 or SPCH 1321  
\* Electives (6 credit hours): ACNT 1303, BMGT 2309, ITSC 1321, ITSW 1304, ITSW 1307, POFI 2301, POFI 2331, POFM 1380, or POFT 1302

## CERTIFICATES

### Office Systems Technology Certificate

26 credit hours

#### FIRST YEAR

##### First Semester

- POFI 2301 Word Processing - MS Word 2000  
POFT 1377 Proofreading and Editing  
POFT 1319 Records and Information Management I  
POFT 2203 Speed and Accuracy Building  
POFT 2301 Document Formatting and Skillbuilding<sup>1,2</sup>

##### Second Semester

- ITSC 1309 Integrated Software Applications I - MS Office<sup>1</sup>  
POFT 1349 Administrative Office Procedures II (Capstone)  
POFT 2321 Machine Transcription  
Elective\*

<sup>1</sup> Tech prep course which may have been completed in high school.

<sup>2</sup> Prerequisite: POFT 1329 (see Footnote 1 above) or consent of the program coordinator

\* Electives (3 credit hours): ACNT 1303, POFT 1302, or POFT 1380

### Advanced General Office Support Specialization

21 credit hours

*Students must complete the Office Systems Technology Certificate before completing this specialization.*

#### FIRST YEAR

##### First Semester

- Elective\*  
Elective\*  
Elective\*  
Elective\*

##### Second Semester

- POFT 1380 Cooperative Education - Administrative Assistant/  
Secretarial Science, General (Capstone)

- Elective\*  
Elective\*

\* Electives (18 credit hours): ACNT 1303, BMGT 2309,  
ITSC 1321, ITSW 1304, ITSW 1307, POFI 1301, POFI 2331,  
POFT 1302, POFT 2333, or POFT 2380

### Legal Office Support Specialization

32 credit hours

#### FIRST YEAR

##### First Semester

- LGLA 1307 Introduction to Law and Legal Profession  
POFI 1301 Computer Applications I - WordPerfect 9  
POFT 1377 Proofreading and Editing  
POFT 1319 Records and Information Management I

- POFT 2203 Speed and Accuracy Building  
POFT 2301 Document Formatting and Skillbuilding<sup>1,2</sup>

##### Second Semester

- ITSC 1309 Integrated Software Applications I - MS Office<sup>1</sup>  
POFL 1359 Legal Transcription  
POFL 2301 Legal Document Processing  
POFT 1349 Administrative Office Procedures II (Capstone)  
Elective\*

<sup>1</sup> Tech prep course which may have been completed in high school.

<sup>2</sup> Prerequisite: POFT 1329 (see Footnote 1 above) or consent of the program coordinator

\* Electives (3 credit hours): ITSW 1304, ITSW 1307, or POFL 1380

### Medical Office Support Specialization

35 credit hours

#### FIRST YEAR

##### First Semester

- POFI 1301 Computer Applications I - WordPerfect 9  
POFT 1377 Proofreading and Editing  
POFT 1319 Records and Information Management I  
POFT 2301 Document Formatting and Skillbuilding<sup>1,2</sup>  
SRGT 1301 Medical Terminology I

##### Second Semester

- ITSC 1309 Integrated Software Applications I - MS Office<sup>1</sup>  
POFM 1321 Medical Law and Ethics for Office Personnel  
POFM 1353 Medical Coding  
POFM 2333 Medical Document Production  
POFM 1331 Medical Transcription I  
POFT 2203 Speed and Accuracy Building

##### Summer

- POFT 1349 Administrative Office Procedures II (Capstone)

<sup>1</sup> Tech prep course which may have been completed in high school.

<sup>2</sup> Prerequisite: POFT 1329 (see Footnote 1 above) or consent of the program coordinator

### Medical Transcription Specialization

41 credit hours

#### FIRST YEAR

##### First Semester

- POFI 1301 Computer Applications I - WordPerfect 9  
POFM 1331 Medical Transcription I  
POFT 1377 Proofreading and Editing  
POFT 2203 Speed and Accuracy Building  
SRGT 1301 Medical Terminology I

##### Second Semester

- BIOL 1471 Human Anatomy and Physiology Basics  
HPRS 2301 Pathophysiology  
POFM 2313 Medical Transcription II  
POFT 2301 Document Formatting and Skillbuilding<sup>1,2</sup>

NOTE: Italicized course numbers and titles denote AAS Core Curriculum.

## Summer

HPRS 2300	Pharmacology for Health Professions
MRMT 1267	Practicum - Medical Transcription (Capstone) <sup>3</sup>
POFM 1321	Medical Law and Ethics for Office Personnel
POFM 2317	Medical Transcription III
POFM 2323	Medical Terminology II

<sup>1</sup> Tech prep course which may have been completed in high school.

<sup>2</sup> Prerequisite: POFT 1329 (see Footnote 1 above) or consent of the program coordinator

<sup>3</sup> May substitute MRMT 1282

## PARALEGAL/LEGAL ASSISTANT

64 credit hours required to graduate

### Program Coordinator:

Division Office . . . . .PRC-H245 . . . . .972.377.1731

### Academic Advisor:

Terrence Brennan . . . . .PRC-F143 . . . . .972.377.1778

Law firms, corporations, and governmental agencies hire paralegals/legal assistants to manage an array of legal responsibilities under the direction and supervision of a licensed attorney. Paralegals must be proficient in computer skills, legal terminology, and legal procedures. The AAS degree in Paralegal/Legal Assistant provides excellent training in these areas and offers opportunities for specialization.

Texas Woman's University (TWU) and CCCCD Paralegal/Legal Assistant programs entered an articulation agreement effective Fall 1999 that establishes a plan for students to obtain an Associate of Arts degree from CCCCD and a Bachelor of Science degree in Paralegal Studies from TWU. Students pursuing this plan will be assured transfer of all CCCCD courses toward a Bachelor of Science degree at TWU.

In Spring 2000, Texas Woman's University began offering paralegal courses on CCCCD campuses. Look for the creation of a TWU/CCCD Legal Studies Center in the near future, which will offer academic and professional development courses to meet the needs of the expanding and increasingly rigorous paralegal profession.

Students planning to transfer to a college or university should check with the CCCCD academic advisor prior to beginning this program.

### Career Opportunities

Employment opportunities for entry-level paralegals/legal assistants are available to students who have completed an associate degree. However, market trends indicate that students should pursue a bachelor's degree.

Responsibilities routinely performed by paralegals/legal assistants include:

- Drafting legal documents
- Performing legal research
- Obtaining information relevant to cases
- Interviewing clients and witnesses
- Assisting with trial preparation

## AAS - Paralegal/Legal Assistant

64 credit hours

### FIRST YEAR

#### First Semester

ACCT 2301	Financial Accounting
COSC 1300	Computer Essentials
ENGL 1301	Composition/Rhetoric I
LGLA 1307	Introduction to Law and the Legal Profession
MATH 1332	Contemporary Mathematics <sup>1</sup>

#### Second Semester

ECON 1301	Introduction to Economics <sup>2</sup>
ENGL 1302	Composition/Rhetoric II
LGLA 1303	Legal Research
POFI 1301	Computer Applications I - WordPerfect 9
PSYC 2302	Applied Psychology <sup>3</sup>

#### Summer

HUMA 1301	Introduction to the Humanities <sup>4</sup>
Elective *	

### SECOND YEAR

#### First Semester

LGLA 1317	Law Office Technology
LGLA 1346	Civil Litigation I
LGLA 2307	Law Office Management
Elective *	
Elective *	

#### Second Semester

LGLA 1347	Civil Litigation II
LGLA 2333	Advanced Legal Document Preparation
LGLA 2381	Cooperative Education - Paralegal/Legal Assistant (Capstone)
PHED/DANC	Any activity course <sup>6</sup>
SPCH 1311	Fundamentals of Speech Communication <sup>7</sup>

<sup>1</sup> May substitute MATH 1324 or MATH 1314 (recommended for transfer students)

<sup>2</sup> May substitute ECON 2301 or ECON 2302

<sup>3</sup> May substitute PSYC 2301

<sup>4</sup> May substitute ARTS 1301, ARTS 1303, ARTS 1304, DRAM 1310, HUMA 1302, MUSI 1306, MUSI 2308, or any PHIL course

... Continued on Next Page

## PHLEBOTOMY

Also see Emergency Medical Professions, page 92.

6 credit hours required to complete certificate

### Program Director:

Division Office . . . . .CPC-E302 . . . . .972.548.6679

### Academic Advisor:

Lynne Meyer . . . . .CPC-A108B . . . . .972.548.6778

At CCCCD, Phlebotomy is a special one-semester program that consists of three courses combining classroom instruction, student laboratory, and clinical experience in affiliated medical laboratories. The program prepares students with career entry skills in phlebotomy, fulfills requirements for a Certificate of Completion in Phlebotomy, and completes the prerequisites for certification by examination as a phlebotomist.

All graduates of the Phlebotomy program are eligible for national certification by examination by the Board of Registry, American Society of Clinical Pathologist (PBT category), or the National Certification Agency for Clinical Laboratory Personnel (CLPIb category).

CCCCD's Phlebotomy Program is approved by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). All clinicals are conducted under the supervision of a certified medical technologist or certified phlebotomist.

Students planning to transfer to a college or university should check with the CCCCD academic advisor prior to beginning this program.

### Special Admissions Requirements

- Proof of high school diploma or GED
- Complete program application procedure
- Complete CCCCD reading and mathematics assessments
- Evidence of good physical and mental health

Practicum space is limited, so students will be admitted on a selected basis. Application must be submitted before August 1 for the fall semester and December 1 for the spring semester. Student liability and up-to-date immunizations are also required for all laboratories and practicums.

Registration is by permission only. Additional information and application packets may be obtained from the program coordinator or the Social Sciences, Health, and Public Services Office.

### Career Opportunities

Certified phlebotomists may find employment opportunities with hospital laboratories, veterinary laboratories, multi-physician clinics, doctor's offices, health department laboratories, insurance companies, reference laboratories, and home health facilities.

<sup>5</sup> Open elective (3 credit hours)

<sup>6</sup> May substitute PHED 1338

<sup>7</sup> May substitute SPCH 1315 or SPCH 1321

\* Electives (6 credit hours): BUSI 2301, CRIJ 1301, CRIJ 1306, CRIJ 1310, any ENGL 23xx course, GOVT 2302, HAMG 1340, LGLA 1305, LGLA 1353, LGLA 1355, LGLA 1380, LGLA 1391, LGLA 2303, RELE 1311, or RELE 2301

## CERTIFICATES

### Paralegal General Certificate

27 credit hours

#### FIRST YEAR

##### First Semester

COSC 1300 Computer Essentials<sup>1</sup>  
LGLA 1307 Introduction to Law and the Legal Profession  
LGLA 1346 Civil Litigation I  
LGLA 2307 Law Office Management

##### Second Semester

ACNT 1303 Introduction to Accounting I<sup>2</sup>  
LGLA 1347 Civil Litigation II

#### SECOND YEAR

##### First Semester

LGLA 1303 Legal Research  
LGLA 2333 Advanced Legal Document Preparation  
LGLA 2381 Cooperative Education – Paralegal/Legal Assistant (Capstone)

<sup>1</sup> May substitute ITSC 1321

<sup>2</sup> May substitute an ACCT course

### Paralegal Specialty Certificate

18 credit hours

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

- Completion of the Paralegal General Certificate, or
- 2 years experience in a law office

#### FIRST YEAR

##### First Semester

Elective\*  
Elective\*  
Elective\*

##### Second Semester

LGLA 1317 Law Office Technology (Capstone)  
Elective\*  
Elective\*

\* Electives (15 credit hours): BUSI 2301, CRIJ 1301, CRIJ 1306, CRIJ 1310, HAMG 1340, LGLA 1305, LGLA 1353, LGLA 1355, LGLA 1391, LGLA 2303, LGLA 2381, RELE 1311, or RELE 2301

NOTE: Italicized course numbers and titles denote AAS Core Curriculum.



## Phlebotomy Certificate

6 credit hours

### FIRST YEAR

#### First Semester

HPRS 1201 Introduction to Health Professions  
MLAB 1223 Phlebotomy  
MLAB 1263 Clinical - Medical Laboratory Technician/Assistant

## PHYSICAL THERAPIST ASSISTANT

72 credit hours required to graduate

### Program Director:

Betsy Chandler . . . . .CPC-E305 . . . . .972.548.6732

### Academic Advisor:

Suzon Schroeder . . . . .CPC-A108C . . . . .972.548.6779

The Physical Therapist Assistant (PTA) program prepares students to become skilled technical health workers that perform certain physical therapy procedures and related tasks under the direction and supervision of a licensed physical therapist. The PTA degree is not a transitional degree to becoming a master or doctorate entry-level licensed physical therapist.

The PTA curriculum balances educational and technical courses and includes hands-on, supervised practicums at local hospitals and clinics. Upon successful completion of the program, the student is awarded an Associate of Applied Science degree and is eligible to sit for the licensing examination administered by the Federation of State Boards of Physical Therapy (FSBPT) and reported to the Texas Board of Physical Therapy Examiners.

Students planning to transfer to a college or university should check with the CCCCD academic advisor prior to beginning this program.

### Accreditation

The CCCCD PTA program is an accredited physical therapy education program as recognized by the Commission on Accreditation in Physical Therapy Education (CAPTE) of the American Physical Therapy Association (APTA).

“Accreditation by CAPTE/APTA recognizes publicly those education programs for the physical therapist and physical therapist assistant that demonstrate the levels of performance, integrity, and quality which entitle them to the confidence of the profession, the community they serve, and the general public. CAPTE accreditation attempts to assure that recognized programs prepare graduates who will be effective in contemporary practice.”

### Special Admissions Requirements

- Application deadline is January 31 for fall semester admission
- Provide proof of high school graduation or GED

- Submit official copies of all college transcripts
- Complete college assessments (if TASP exempt) or TASP within 5 years
- Complete PSB exam
- Submit a handwritten, one-to-two page essay that explains the applicant's interest in the PTA program
- Have had a minimum of 20 hours of observation in two different physical therapy clinics (for a total of 40 hours) or two previous work experiences in physical therapy

Registration is by permission only. Information and applications may be obtained from the program coordinator or the Social Sciences, Health, and Public Services Office.

## AAS – Physical Therapist Assistant

72 credit hours

### PRE-ENTRANCE REQUIREMENTS

BIOL 2401 Anatomy and Physiology I

MATH 1314 College Algebra<sup>1</sup>

### Summer

BIOL 2402 Anatomy and Physiology II

SRGT 1301 Medical Terminology I

### FIRST YEAR

#### First Semester

ENGL 1301 Composition/Rhetoric I

PTHA 1201 The Profession of Physical Therapy

PTHA 1305 Basic Patient Care Skills

PTHA 1321 Clinical Pathophysiology

PTHA 1413 Functional Anatomy

#### Second Semester

PSYC 2301 General Psychology<sup>2</sup>

PTHA 1431 Physical Agents

PTHA 2201 Assessment and Measurement Skills

PTHA 2205 Clinical Neurology

PTHA 2409 Therapeutic Exercise

### Summer

COSC 1300 Computer Essentials

PSYC 2314 Life Span Psychology<sup>3</sup>

PTHA 1266 Practicum I - Physical Therapist Assistant

### SECOND YEAR

#### First Semester

HUMA 1301 Introduction to the Humanities<sup>4</sup>

PTHA 2431 Management of Neurological Disorders

PTHA 2435 Rehabilitation Techniques

SPCH 1311 Fundamentals of Speech Communication<sup>5</sup>

NOTE: The second digit in a course number indicates the credit hours for that course.

## Second Semester

PTHA 2239 Professional Issues (Capstone)  
PTHA 2266 Practicum II - Physical Therapist Assistant  
PTHA 2267 Practicum III - Physical Therapist Assistant

- <sup>1</sup> May substitute MATH 1324 Pre-Calculus or MATH 1332 Contemporary Math  
<sup>2</sup> May substitute PSYC 2302  
<sup>3</sup> May substitute PSYC 2315  
<sup>4</sup> May substitute ARTS 1301, ARTS 1303, ARTS 1304, DRAM 1310, HUMA 1302, MUSI 1306, MUSI 2308, or any PHIL course  
<sup>5</sup> May substitute SPCH 1315 or SPCH 1321

## REAL ESTATE

61 credit hours required to graduate.

### Program Coordinator:

Mary Milford . . . . .CYC-B325 . . . . .972.985.3709

### Academic Advisor:

Terrence Brennan . . . . .PRC-F143 . . . . .972.377.1778

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 college or university, 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; and closing. An excellent instructional staff and a cooperative education program with local brokers give real estate students at CCCCD a personalized, practical, high quality educational experience.

Students planning to transfer to a college or university should check with the CCCCD academic advisor prior to beginning this program.

### 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 include:

- Appraisal
- Brokerage
- Counseling
- Education
- Finance
- Property Development
- Property Management

## AAS – Real Estate

61 credit hours

### FIRST YEAR

#### First Semester

*COSC 1300 Computer Essentials*  
*ENGL 1301 Composition/Rhetoric I*  
*MATH 1332 Contemporary Mathematics<sup>1</sup>*  
*PHED/DANC Any activity course<sup>2</sup>*  
RELE 1301 Principles of Real Estate I  
RELE 2301 Law of Agency

#### Second Semester

ENGL 1302 Composition/Rhetoric II  
POFT 1127 Introduction to Keyboarding  
RELE 1311 Real Estate Law of Contracts  
RELE 1325 Real Estate Mathematics  
RELE 2309 Principles of Real Estate II  
*SPCH 1311 Fundamentals of Speech Communication<sup>3</sup>*

### SECOND YEAR

#### First Semester

BUSI 1301 Introduction to Business  
*ECON 1301 Introduction to Economics<sup>4</sup>*  
*PSYC 2302 Applied Psychology<sup>5</sup>*  
RELE 1321 Real Estate Marketing  
Elective \*\*

#### Second Semester

*HUMA 1301 Introduction to the Humanities<sup>6</sup>*  
RELE 1319 Real Estate Finance  
RELE 2381 Cooperative Education - Real Estate (Capstone)  
Elective \*  
Elective \*

<sup>1</sup> May substitute MATH 1324 or MATH 1314 (recommended for transfer students)

<sup>2</sup> May substitute PHED 1338

<sup>3</sup> May substitute SPCH 1315 or SPCH 1321

<sup>4</sup> May substitute ECON 2301 or ECON 2302

<sup>5</sup> May substitute PSYC 2301

<sup>6</sup> May substitute ARTS 1301, ARTS 1303, ARTS 1304, DRAM 1310, HUMA 1302, MUSI 1306, MUSI 2308, or any PHIL course

\* Electives (0-6 credit hours): ACCT 2301, BMGT 1302, BMGT 1303, BUSG 2309, BUSI 2301, HRPO 1392, ITSW 1304, RELE 1105, RELE 1380, or RELE 2103

\*\* Electives (3-9 credit hours): RELE 1303, RELE 1307, RELE 1309, RELE 1315, RELE 1327, RELE 1391, or RELE 2331

## CERTIFICATES

### Real Estate General Certificate

15 credit hours

#### FIRST YEAR

##### First Semester

RELE 1301 Principles of Real Estate I  
RELE 2301 Law of Agency  
RELE 2309 Principles of Real Estate II

##### Second Semester

Elective\*

Elective\*

**CAPSTONE: Comprehensive exam**

\* Electives (6 credit hours): RELE 1105, RELE 1303, RELE 1307, RELE 1309, RELE 1311, RELE 1315, RELE 1319, RELE 1321, RELE 1325, RELE 1327, RELE 1380, RELE 2103, RELE 2331, RELE 2381, TREC-approved accredited college-related courses, or other coursework approved by program coordinator

### Real Estate Brokers Certificate

24 credit hours

#### FIRST YEAR

##### First Semester

RELE 1301 Principles of Real Estate I  
RELE 2309 Principles of Real Estate II  
RELE 2301 Law of Agency  
RELE 1311 Real Estate Law of Contracts

##### Second Semester

RELE 1321 Real Estate Marketing  
RELE 1319 Real Estate Finance

Elective\*

Elective\*

**CAPSTONE: Comprehensive exam**

\* Electives (6 credit hours): RELE 1105, RELE 1303, RELE 1307, RELE 1309, RELE 1315, RELE 1327, RELE 1380, RELE 2103, RELE 2331, RELE 2381, TREC - approved accredited college-related courses, or other coursework approved by the program coordinator

## RESPIRATORY CARE

72 credit hours required to graduate

#### Program Director:

Allen Barbaro . . . . .CPC-E306 . . . . .972.548.6870

#### Academic Advisor:

Suzon Schroeder . . . . .CPC-A108C . . . . .972.548.6779

CCCCD's Respiratory Care program prepares individuals for an allied health specialty in clinical care and management of respiratory disorders. The 22-month program graduates a student with an AAS degree and qualifies the individual to apply for the Registered Respiratory Therapist board examination.

Respiratory care courses transferred from other accredited programs may not exceed five years of age. In this program, the minimum passing grade for all academic courses and all Respiratory Care lecture courses is a "C". A minimum grade of "B" is required for all Respiratory Care clinical courses.

Students planning to transfer to a college or university should check with the CCCCDC academic advisor prior to beginning this program.

#### Special Admission Requirements

- Provide proof of high school graduation or GED
- Submit official copies of all college transcripts
- Complete CCCCDC reading, writing and mathematics assessments
- Complete Psychological Services Bureau, Health Occupations Aptitude Exam
- Complete the written and skills exam in RSPT 2139 according to the standards set by the American Heart Association

Registration is by permission only. Information and applications may be obtained from the program coordinator or the Social Sciences, Health, and Public Services Office.

#### Program Completion Requirements

- All students are required to complete comprehensive program examinations to receive their Certificate of Completion and degree. The CRT SAE will be given in the fall semester of the second year. The RRT SAE will be given in the spring semester. The student will have three (3) opportunities to pass both exams. Satisfactory completion is required for graduation from the program.
- All students must complete BIOL 2401 and BIOL 2402 prior to entering clinical rotations during the summer term.

#### Transition Program

The college offers a transition program to allow students who hold a CRT credential and have one year of experience to receive their degree and become registry-eligible. Contact the program coordinator for more information.

## Career Opportunities

Career opportunities in the health care industry for 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.

### AAS – Respiratory Care

72 credit hours

#### PRE-ENTRANCE REQUIREMENTS

- A. Student must be prepared to take BIOL 2401 (Anatomy and Physiology) by meeting one of the following requirements:
1. Completion of two years of high school biology within the last five years, or
  2. Completion of BIOL 1406 (General Biology).
- B. Student must be prepared to enter college-level mathematics.

#### FIRST YEAR

##### First Semester

- BIOL 2401 Anatomy and Physiology I*  
 RSPT 1160 Clinical I - Respiratory Therapy Technician  
 RSPT 1201 Introduction to Respiratory Care  
 RSPT 1307 Cardiopulmonary Anatomy and Physiology  
 RSPT 1410 Respiratory Care Procedures I

##### Second Semester

- BIOL 2402 Anatomy and Physiology II*  
 RSPT 1317 Respiratory Care Pharmacology  
 RSPT 1361 Clinical II - Respiratory Therapy Technician  
 RSPT 2310 Cardiopulmonary Disease  
 RSPT 1411 Respiratory Care Procedures II

##### Summer

- RSPT 1471 Respiratory Care Procedures III  
 RSPT 1362 Clinical III - Respiratory Therapy Technician

#### SECOND YEAR

##### First Semester

- MATH 1314 College Algebra<sup>1</sup>*  
*PSYC 2301 General Psychology<sup>2</sup>*  
 RSPT 2360 Clinical IV - Respiratory Therapy Technician  
 RSPT 2355 Critical Care Monitoring  
 RSPT 2453 Neonatal/Pediatric Cardiopulmonary Care

##### Second Semester

- HUMA 1301 Introduction to the Humanities<sup>3</sup>*  
*ENGL 1301 Composition/Rhetoric I*  
*BIOL 2420 Microbiology*  
 RSPT 2139 Advanced Cardiac Life Support  
 RSPT 2231 Clinical Simulations in Respiratory Care  
 RSPT 2361 Clinical V - Respiratory Therapy Technician (Capstone)  
 RSPT 2247 Specialties in Respiratory Care

<sup>1</sup> May substitute a higher level mathematics course

<sup>2</sup> May substitute PSYC 2302, or SOCI 1301

<sup>3</sup> May substitute ARTS 1301, ARTS 1303, ARTS 1304, DRAM 1310, HUMA 1302, MUSI 1306, MUSI 2308, or any PHIL course

## SEMICONDUCTOR MANUFACTURING TECHNOLOGY

70 credit hours required to graduate.

### Program Coordinator:

Pete Brierley . . . . .PRC-H230E . . . . .972.377.1686

### Academic Advisor:

Susan Nethery . . . . .PRC-F142 . . . . .972.377.1779

Semiconductor manufacturing consists of a series of complex processes by which miniaturized electrical devices or microchips are created for electronic equipment. Students in this program will receive instruction in related academic subjects, safety procedures, statistical process control techniques, and the operation of machinery and equipment for the fabrication and processing of semiconductors.

CCCCD's Semiconductor Manufacturing Technology program is a joint workforce education program with Richland College. The AAS degree program prepares students for employment as semiconductor equipment technicians. As an alternative, students may complete the 38-credit hour certificate program that certifies them for employment as a semiconductor equipment operator.

Students planning to transfer to a college or university should check with the CCCCAD academic advisor prior to beginning this program.

## Career Opportunities

The semiconductor manufacturing industry is growing dramatically, thanks to the speed with which technological changes are incorporating microelectronic devices in our everyday lives. Microchips are critical components in a multitude of products for the home, office, and car. The semiconductor technician/operator is listed as a statewide targeted occupation by the Texas State Occupational Information Coordinating Committee in its June 1996 report on Texas Emerging and Evolving Occupations. The Dallas/Fort Worth Metroplex semiconductor industry projects a growth of 12,000 jobs over the next five years. North Texas has the largest concentration of semiconductor industries in the nation, many of which are located in Collin County.

### AAS – Semiconductor Manufacturing Technology

70 credit hours

#### FIRST YEAR

##### First Semester

- CETT 1403 DC Circuits<sup>1</sup>  
*ENGL 1301 Composition/Rhetoric I*  
*MATH 1314 College Algebra*

NOTE: Italicized course numbers and titles denote AAS Core Curriculum.



PHYS 1401 General Physics I  
 SMFT 1343 Semiconductor Manufacturing Technology I

**Second Semester**

CETT 1405 AC Circuits<sup>1</sup>  
 CHEM 1405 Introduction to Chemistry I  
 CPMT 2337 Microcomputer Interfacing  
 HUMA 1301 *Introduction to the Humanities*<sup>2</sup>  
 MATH 1316 Trigonometry

**Summer**

CETT 1425 Digital Fundamentals  
 CETT 1429 Solid State Devices<sup>1</sup>

**SECOND YEAR**

**First Semester**

CETT 1380 Cooperative Education - Computer Engineering Technology/Technician  
 CETT 1457 Linear Integrated Circuits  
 ELMT 1405 Basic Fluid Power  
 SPCH 1311 *Fundamentals of Speech Communication*<sup>3</sup>

**Second Semester**

ELMT 2437 Electronic Troubleshooting, Service, and Repair  
 INMT 1447 Industrial Automation  
 PSYC 2302 *Applied Psychology*<sup>4</sup>  
 Elective\*

**CAPSTONE: Comprehensive exam**

- <sup>1</sup> Tech Prep course which may have been completed in high school  
<sup>2</sup> Select from ARTS 1301, ARTS 1303, ARTS 1304, DRAM 1310, HUMA 1302, MUSI 1306, MUSI 2308, or any PHIL course  
<sup>3</sup> May substitute SPCH 1315 or SPCH 1321  
<sup>4</sup> May substitute PSYC 2301  
 \* Electives (3 credit hours): CETT 2380 or SMFT 2343

**Semiconductor Manufacturing Operator Certificate**

38 credit hours

**FIRST YEAR**

**First Semester**

CETT 1403 DC Circuits<sup>1</sup>  
 ENGL 1301 Composition/Rhetoric I  
 MATH 1314 College Algebra<sup>2</sup>  
 PSYC 2302 Applied Psychology  
 SMFT 1343 Semiconductor Manufacturing Technology I

**Second Semester**

CETT 1405 AC Circuits<sup>1</sup>  
 CHEM 1405 Introduction to Chemistry I  
 MATH 1316 Trigonometry  
 PHYS 1401 General Physics I

**Summer**

CETT 1380 Cooperative Education - Computer Engineering Technology/Technician

ELMT 1405 Basic Fluid Power

**CAPSTONE: Comprehensive exam**

- <sup>1</sup> Tech Prep course which may have been completed in high school.  
<sup>2</sup> May substitute a higher-level MATH course

**TELECOMMUNICATIONS TECHNOLOGY**

Also a Tech Prep program

72 credit hours required to graduate

**Program Coordinator:**

Pete Brierley . . . . . PRC-H230E . . . . . 972.377.1686

**Academic Advisor:**

Susan Nethery . . . . . PRC-F142 . . . . . 972.377.1779

CCCCD is located in the heart of the "Telecom Corridor" and is fortunate to be surrounded by the leaders in the telecommunications industry. The Telecommunications Technology degree and certificate programs were developed with strong industry input and support. Alcatel/DSC, Ericsson, Fujitsu, Lucent (AT&T), MCI/WorldCom, Nortel Networks, PrimeCo, Raytheon, Southwestern Bell, and several other companies continue to offer guidance as these programs evolve.

The AAS degree and certificate programs in Telecommunications Technology provide the skills needed to meet the demands common to all telecommunications industries. Related Cooperative Education courses provide students the opportunity to get hands-on experience in state-of-the-art companies, thus further preparing themselves for successful employment in this high-tech, high-growth field.

Students planning to transfer to a college or university should check with the CCCC academic advisor prior to beginning this program.

**Career Opportunities**

Students successfully completing the Telecommunications Technology program will be prepared for employment in the following career areas:

- Customer Service
- Manufacturing
- Switching Technology
- Telecommunications Equipment Installation
- Transmission Technology
- Wireless Communications

NOTE: The second digit in a course number indicates the credit hours for that course.

## AAS – Telecommunications Technology

72 credit hours

### FIRST YEAR

#### First Semester

CETT 1409 DC-AC Circuits  
*ENGL 1301 Composition/Rhetoric I*  
INTC 1305 Introduction to Electronic Instrumentation<sup>1</sup>  
*MATH 1314 College Algebra*<sup>2</sup>  
*SPCH 1311 Fundamentals of Speech Communication*<sup>3</sup>

#### Second Semester

CETT 1325 Digital Fundamentals<sup>1</sup>  
CETT 1431 Technical Programming  
*MATH 1316 Trigonometry*  
*PHYS 1401 General Physics I*  
Specialization Course<sup>4</sup>

#### Summer

EECT 2439 Communications Circuits  
Specialization Course<sup>4</sup>

### SECOND YEAR

#### First Semester

EECT 1380 Cooperative Education - Electrical, Electronic, and  
Communications Engineering Technology/Technician  
*HUMA 1301 Introduction to the Humanities*<sup>5</sup>  
*PSYC 2302 Applied Psychology*<sup>6</sup>  
Specialization Course<sup>4</sup>  
Specialization Course<sup>4</sup>

#### Second Semester

EECT 2435 Telecommunications (Capstone)  
Specialization Course<sup>4</sup>  
Specialization Course<sup>4</sup>  
Specialization Course<sup>4</sup>  
Specialization Course<sup>4</sup>

<sup>1</sup> Tech Prep course which may have been completed in high school

<sup>2</sup> May substitute a higher-level MATH course

<sup>3</sup> May substitute SPCH 1315 or SPCH 1321

<sup>4</sup> Select one of the following specializations: Telecommunications Customer Service, Telecommunications Manufacturing, Telecommunications Switching, Telecommunications Transmission, or Wireless Telecommunications. Each specialization requires the student to complete a minimum of 25 credit hours in the area of specialization. Contact the program coordinator for more information.

<sup>5</sup> May substitute ARTS 1301, ARTS 1303, ARTS 1304, DRAM 1310, HUMA 1302, MUSI 1306, MUSI 2308, or any PHIL course

<sup>6</sup> May substitute PSYC 2301

## CERTIFICATES

### Telecommunications Technology Certificate

35 credit hours

#### FIRST YEAR

##### First Semester

CETT 1325 Digital Fundamentals<sup>1</sup>  
CETT 1409 DC-AC Circuits  
CETT 1431 Technical Programming  
INTC 1305 Introduction to Electronic Instrumentation

##### Second Semester

EECT 1380 Cooperative Education - Electrical, Electronic, and  
Communications Engineering Technology/Technician  
EECT 2439 Communications Circuits  
Specialization Course<sup>2</sup>  
Specialization Course<sup>2</sup>  
Specialization Course<sup>2</sup>

##### Summer

EECT 2435 Telecommunications (Capstone)

<sup>1</sup> Tech Prep course which may have been completed in high school

<sup>2</sup> Student must select one of the following specializations: Telecommunications Customer Service, Telecommunications Manufacturing, Telecommunications Switching, Telecommunications Transmission, or Wireless Telecommunications. Each specialization requires the student to complete a minimum of 10 credit hours in the area of specialization. Contact the program coordinator for more information.

### Electronic Communications Technology Certification

15 credit hours

This certificate was developed for Southwestern Bell employees only. Contact the program coordinator for more information.

#### FIRST YEAR

##### First Semester

CETT 1303 DC Circuits<sup>1</sup>  
CETT 1305 AC Circuits<sup>1</sup>

##### Second Semester

CETT 1325 Digital Fundamentals<sup>1</sup>  
CETT 1329 Solid State Devices<sup>1</sup>  
CSIR 1344 General Communication Circuits I

#### CAPSTONE: Comprehensive exam

<sup>1</sup> Tech Prep course which may have been completed in high school

## COURSE PREFIXES

A	Geology - GEOL
Academic & Personal Enhancement - ACPE	German - GERM
Accounting - ACCT, ACNT	Government - GOVT
American Sign Language - SGNL	H
Anthropology - ANTH	Health Science - HPRS, SRGT
Applied Graphic Design Technology - ARTC, FLMC, GRPH, IMED, ITSE	History - HIST
Art - ARTS	Horticulture/Landscape Technology - HALT
B	Hotel/Restaurant Management - CULA, HAMG, IFWA, PSTR, RSTO, TRVM
Biology - BIOL	Humanities - HUMA
Biotechnology - BITC	I
Business - BUSI	Interior Design-Commercial - INDS
Business Management - BMGT, HRPO, QCTC	Interpreter Preparation Program/Deaf - SGNL, SLNG
C	Italian - ITAL
Chemistry - CHEM	J
Child Development - CDEC, TECA	Japanese - JAPN
Chinese - CHIN	M
Communications - COMM	Marketing - BMGT, BUSG, IBUS, MRKG
Computer-Aided Drafting & Design - DFTG	Mathematics; Developmental Mathematics - MATH
Computer Information Systems - BCIS, GRPH, IMED, ITSC, ITSE, ITSW	Music - MUAP, MUEN, MUSB, MUSC, MUSI, MUSP
Computer Networking Technology - EECT, ITCC, ITNW	N
Computer Science - BCIS, COSC, ITSE	Nursing - RNSG
Criminal Justice - CRIJ	O
D	Office Systems Technology - ACNT, HPRS, MRMT, POFI, POFL, POFM, POFT, SRGT
Dance - DANC	P
Dental Hygiene - DHYG	Paralegal/Legal Assistant - LGLA
Developmental Reading - READ	Philosophy - PHIL
Developmental Writing - ENGL	Phlebotomy - HPRS, MLAB
Dietary Manager - DITA	Photography - ARTS, COMM
E	Physical Education - PHED
E-Business Media - GRPH, ECOM, IMED, ITSC, ITSE, ITSW	Physical Therapist Assistant - PTHA
Economics - ECON	Physics - PHYS
Education - EDUC	Psychology - PSYC
Electronic Technology - CETT, CPMT, ELMT, INTC	R
Electronic Engineering Technology - CETT, CPMT, ELMT, INTC	Real Estate - RELE
Emergency Medical Services - EMSP	Respiratory Care - RSPT
Engineering - ENGR	Russian - RUSS
Engineering Technology - ENTC	S
English - ENGL	Semiconductor Manufacturing Technology - INMT, SMFT
English as a Second Language - ESLC, ESLG, ESSL, ESLR, ESLS, ESLV, ESLW	Social Work - SOCW
Environmental Science & Technology - ENVR, EPCT	Sociology - SOCI
F	Spanish - SPAN
Fire Science - FIRS, FIRT	Speech Communications - COMM, SPCH
French - FREN	T
G	Telecommunications Technology - CSIR, EECT, LOTT
Geography - GEOG	Theatre - DRAM

A man with glasses and a white shirt is pointing at a chalkboard. The chalkboard has handwritten numbers: '14,4' circled, '75.0', and '5.6'.

## COURSE DESCRIPTIONS

### A

#### **ACCT 2301 Financial Accounting**

Accumulation and use of accounting information in business, fundamental concepts and records, operating cycle, income measurement, and preparation and analysis of financial statements. Lab required. 3 credit hours.

#### **ACCT 2302 Managerial Accounting**

Uses of accounting data by business management, cost behavior analysis, control of manufacturing product costing, cost-volume-profit analysis, budgeting controls, standard costing, responsibility accounting, capital budgeting, and analysis of financial statements. Speed and accuracy using 10-key by touch. Lab required. Prerequisite: ACCT 2301 and COSC 1300. 3 credit hours.

#### **ACNT 1303 Introduction to Accounting I**

A study of analyzing, classifying, and recording business transactions in a manual and computerized environment. Emphasis on understanding the complete accounting cycle and preparing financial statements, bank reconciliations, and payroll. Speed and accuracy using 10-key by touch. 3 credit hours.

#### **ACPE 0200 Study Skills**

Explores various methods and techniques of improving study skills and habits, including time management, note taking, reading, communication, test preparation, test taking, problem-solving, and learning styles. *May not be used to satisfy the requirements of an associate degree.* 2 credit hours.

#### **ACPE 1200 Career Planning and College Survival**

Explore career options and acquire skills and information to facilitate successful achievement of educational and career goals. Included will be an understanding of programs and resources at CCCCD, short and long range career strategies, and occupational opportunities. *May not be used to satisfy the requirements of an associate degree.* 2 credit hours.

CCCD



**ACPE 1205 Leadership and Personal Development**

Concepts of leadership and personal development will be explored both theoretically and practically, including communication styles, leadership strategies, goal setting, interpersonal relationships, and conflict resolution. *May not be used to satisfy the requirements of an associate degree.* 2 credit hours.

**ANTH 2301 Physical Anthropology**

Overview of human origins and cultural adaptations combining study of our nearest relatives, the chimpanzees, with analysis of reproductions of fossil bones. Unit concerning forensic anthropology explains how crimes can be solved from analysis of skeletal material; students work with replicas of human bone. Opportunity to participate in field trip to zoo. 3 credit hours.

**ANTH 2302 Introduction to Archaeology**

Study of famous archaeological sites and introduction to fundamentals of fieldwork methods and interpretation, including how to conduct a field excavation, hands-on work with artifacts, and work on an archaeological site. 3 credit hours.

**ANTH 2346 General Anthropology**

Study of human beings, their antecedents and related primates, and their cultural behavior and institutions. Introduces the major subfields: physical and cultural anthropology, archaeology, linguistics, and ethnology. 3 credit hours.

**ANTH 2351 Cultural Anthropology**

Utilization of 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. May include anthropological fieldwork. 3 credit hours.

**ANTH 2389 Academic Co-op Anthropology**

Integrates on-campus study with practical hands-on work experience in anthropology. In conjunction with class seminars, the student will set specific goals and objectives in the study of anthropology. Contact the Cooperative Work Experience Office. Prerequisite: Consent of instructor. 3 credit hours.

**ARTC 1301 Basic Animation**

Examination of concepts, characters, and storyboards for basic animation production. Emphasis on creating movement and expression utilizing traditional or electronically generated image sequences. Lab required. 3 credit hours.

**ARTC 1305 Basic Graphic Design**

A study of two-dimensional (2-D) design with emphasis on the visual communication design process. Topics include basic terminology and graphic design principles. 3 credit hours.

**ARTC 1309 Basic Illustration**

Introduction to drawing techniques, skills, and concepts using various black and white media. Emphasis on perspective construction of the human figure and principles of shading as they pertain to the commercial illustration industry. Lab required. 3 credit hours.

**ARTC 1321 Illustration Techniques**

A study of illustration techniques in various media. Emphasis on creative interpretation and disciplined draftsmanship for visual communication of ideas. Lab required. Prerequisite: ARTS 1316. 3 credit hours.

**ARTC 1325 Introduction to Computer Graphics - Print**

A survey of computer design concepts, terminology, processes, and procedures. Topics include computer graphics hardware, electronic images, electronic publishing, vector-based graphics, and interactive multimedia. Lab required. 3 credit hours.

**ARTC 1327 Typography**

A study of letterforms and typographic concepts as elements of graphic communication. Emphasis on developing a current, practical typographic knowledge based on industry standards. Lab required. Prerequisite: ARTC 1325. 3 credit hours.

**ARTC 1341 3-D Animation I**

Instruction in three-dimensional (3-D) modeling and rendering techniques including lighting, staging, camera, and special effects. Emphasis on 3-D modeling building blocks using primitives to create simple or complex objects. Lab required. Prerequisite: ARTC 1345. 3 credit hours.

**ARTC 1345 3-D Modeling and Rendering**

A studio course in the theory and technique of three-dimensional (3-D) modeling utilizing appropriate software. Topics include the creation and modification of 3-D geometric shapes; and variety of rendering techniques; and use of camera light sources, texture, and surface mapping. Lab required. Prerequisites: ARTC 1325 and 2305. 3 credit hours.

**ARTC 1349 Art Direction I**

Creation of projects in art direction for advertising graphic campaigns encompassing products, services, or ideas. Topics include all campaign procedures from initial research and creative strategy to final execution of a comprehensive project. Lab required. Prerequisite: ARTC 1305. 3 credit hours.

**ARTC 1353 Computer Illustration I**

Exploration of computer programs with applications to illustration and photo manipulation and file management for reproduction. Emphasis on concept development in print and digital delivery. Lab required. Prerequisites: ARTC 1321 and 1325. 3 credit hours.

**ARTC 1391 Special Topics in Graphic Design,  
Commercial Art, and Illustration**

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. 3 credit hours.

**Advanced 3D Modeling and Rendering**

3D illustration using the computer as the main tool. Concentrated exploration of computer modeling and rendering tools. Lab required. Prerequisite: ARTC 2305.

**Industrial Design**

This course will initiate the student in the process of conceptualizing a consumer product through to construction of a 3D model for prototyping. The student will be required to research, conceptualize, and critique each other's design ideas for introduction into 3D software. Upon completion of this course, the student will have produced a prototype-ready 3D model and a full photorealistic render of their design. Prerequisite: ARTC 1321 or 2305, or consent of coordinator.

**ARTC 2305 Digital Painting and Imaging**

General principles of digital image processing and electronic painting. Emphasis on bitmapped- or raster-based image marking and the creative aspects of electronic illustration for commercial and fine art applications. Lab required. Prerequisite: ARTC 1325. 3 credit hours.

**ARTC 2309 Electronic Pre-press**

Theory and techniques for pre-press preparation using industry standard software for final file output. Topics include the procedures and problems involved in computer file preparation ranging from trapping, color separations, and resolutions to printing basics and service bureaus. Lab required. Prerequisites: ARTC 1305 and 1325. 3 credit hours.

**ARTC 2311 History of Communication Graphics**

Survey of the evolution of graphic arts as it relates to the history of art. Topics include formal, stylistic, social, political, economic, and historical aspects. Emphasis on the art movement, schools of thought, individuals, and technology as they interrelate with graphic arts. 3 credit hours.

**ARTC 2313 Computer Production Art II**

Studio art utilizing layout procedures from thumbnails and roughs to final comprehensive and printing. Emphasis on the effective use of a variety of stylistic approaches to visual communication and the development of effective work habits and studio skills. Lab required. Prerequisites: ARTC 1325 and 1327. 3 credit hours.

**ARTC 2331 Illustration Concepts**

Advanced study of different painting media such as digital and traditional tools. Emphasis on conceptualization and composition as they relate to "real world" assignments. Lab required. Prerequisite: ARTC 1321. 3 credit hours.

**ARTC 2341 3-D Animation II**

Skill development in three-dimensional modeling and rendering techniques using lighting, staging, and special effects for digital output. Emphasis on the production of three-dimensional (3-D) animation as final digital outputting using modeling, rendering, animation, and outputting software. Lab required. Prerequisite: ARTC 1341. 3 credit hours.

**ARTC 2349 Art Direction II**

Mastery of advanced art direction problems with emphasis on selected topics in advertising campaigns. Topics include written, oral, and visual skills. Advanced students from areas of production art, illustration, and computer graphics work in teams to produce advertising and illustration solutions for clients on and off campus. Prerequisite: ARTC 1349. 3 credit hours.

**ARTC 2371 Advanced 2D Computer Animation**

Advanced work in 2D animations. Further development of animated graphics and art for video, film, or interactive media with emphasis on scripting. Lab required. 3 credit hours.

**ARTC 2378 Animation on the Web**

Explores software and techniques applicable to web animation. Emphasis on understanding animation software and its usage in web automation design. Prerequisite: IMED 1316. 3 credit hours.

**ARTC 2379 Professional Practices**

Overview of professional practices required both in the workplace and as a freelance artist. Networking, professional organizations, presentation skills, job-seeking techniques, and portfolio development will be covered. Exit course for the Applied Graphic Design Technology program. Prerequisite: Consent of program coordinator. 3 credit hours.

**ARTS 1213 Foundations of Art: Museums, Galleries,  
and Collections**

Introduction to the creative media; designed to enhance artistic awareness and sensitivity through the creative and imaginative use of art materials and tools. Includes art history and culture through the exploration of a variety of artworks with an emphasis on aesthetic judgment and growth. This seminar course offers students the opportunity to study art in area museums, galleries and collections, and global art centers to acquaint students with art that has influenced our 20th century artists and impacted the culture in which we live. 2 credit hours.

NOTE: Capstones may be found in each program.

**ARTS 1301 Art Appreciation**

Introduction to the visual arts, emphasizing the understanding and appreciation of art. Reviews two- and three-dimensional art forms, methods, and media; examines the visual elements and principles of design; and briefly surveys art styles from the prehistoric to the 20th century. 3 credit hours.

**ARTS 1303 Art History I**

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**

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**

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. Prepares students for composition in painting, drawing, and other two-dimensional art courses. Lab required. 3 credit hours.

**ARTS 1312 Design II**

Introduction to three-dimensional design problems utilizing various sculpture materials. Exploration of form and methods in a variety of media. Prepares students for sculpture and other three-dimensional art courses. Design I is not a prerequisite. Lab required. 3 credit hours.

**ARTS 1316 Drawing I**

Introduction to drawing including space, form, line, contour, gesture, texture, value, and composition. Learn observational skills in order to render the subjects of still life, figure, perspective, and landscape more accurately. Emphasis on technique, imagination, and use of a variety of materials. Lab required. 3 credit hours.

**ARTS 1317 Drawing II**

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

**ARTS 1370 Problems in Contemporary Art - Selected Topics**

In-depth study of concerns and practices in contemporary art. May be repeated for credit as topics change. Lab required. 3 credit hours.

**Airbrush**

Introduces the airbrush as a tool in art and design, with emphasis on texture techniques and classroom exercises.

**Computer Art I**

Introduction to creating art on the computer; includes techniques with pencils, charcoal, crayons, pastels, watercolor, oils, and collage. Emphasis is placed on combining traditional art techniques with the computer. No previous computer experience necessary. Prerequisite: ARTS 1316.

**Computer Art II**

Continuation of Computer Art I. Prerequisite: ARTS 1370-Computer Art I.

**International Art Studies**

Offers students the opportunity to study art in global art centers; acquaints students with art that has influenced 20th century artists and impacted the culture in which we live.

**Mixed Media Painting**

Aids beginning and advanced students in discovering their innermost hopes, fears, values, and thought processes and guides them in developing their own personal art expression. Prerequisite: ARTS 1316 or consent of instructor.

**Museums and Galleries**

Offers the rare opportunity to study and view contemporary art in Dallas/Ft. Worth Metroplex museums, galleries, and private collections. Class meets off campus.

**Papermaking**

Introduction to creative papermaking techniques and various methods for embellishing hand-made paper surfaces. Prerequisite: ARTS 1311 or 1312.

**Printmaking/Screenprinting**

Introduction to screenprinting techniques for paper and fabrics, including cut-paper stencils, hand-painted screens, and photographic stencil processes. Prerequisite: ARTS 1311 or consent of instructor.

**ARTS 2311 Introduction to Color/Painting**

Practical application of current color theories used in both fine arts and commercial art. Emphasis on color perception and color psychology with exercises in transparent and opaque pigments, printing inks, and color photography. Lab required. Prerequisites: ARTS 1311 and 1316. 3 credit hours.

**ARTS 2316 Painting I**

Introduction to painting including use of materials, techniques, color study, and composition. Various painting styles will be practiced. Lab required. Prerequisite: ARTS 1316. 3 credit hours.

**ARTS 2317 Painting II**

Increases the student's ability to use various techniques, color, and composition with acrylics, oils, and other media. Explores realistic and abstract approaches to painting. Emphasis on design, imagination, personal expression, and painting style. Lab required. Prerequisite: ARTS 2316. 3 credit hours.

**ARTS 2323 Life Drawing I**

Drawing of the life model including instruction in anatomical and creative approaches to figure drawing. Emphasis on personal expression and creativity. May be taken for up to 6 hours of credit, with the second semester of work being more advanced. Lab required. Prerequisite: ARTS 1316. 3 credit hours.

**ARTS 2324 Life Drawing II**

Continuation of study of the life model; emphasis on personal expression and creativity. Lab required. Prerequisite: ARTS 2323. 3 credit hours.

**ARTS 2326 Sculpture I**

Study of three-dimensional form and introduction to sculpture techniques including basic methods of modeling, construction, and simple casting procedures. Exploration of various media including stone, wood, metal, plaster, and paper. Lab required. Prerequisite: ARTS 1312. 3 credit hours.

**ARTS 2327 Sculpture II**

Continued application of three-dimensional form and sculpture techniques gaining experience in composition and problem solving in various media. Emphasis on creative expression and personal style. Lab required. Prerequisite: ARTS 2326. 3 credit hours.

**ARTS 2333 Printmaking I**

Introduction to the process of intaglio and relief printing including linoleum cuts, etching, aquatint, collagraph, and monotypes. Lab required. Prerequisite: ARTS 1316. 3 credit hours.

**ARTS 2334 Printmaking II**

Continued application of the intaglio and relief printing processes gaining experience in composition and problem solving in various techniques. Emphasis on creative expression and personal style. Lab required. Prerequisite: ARTS 2333. 3 credit hours.

**ARTS 2346 Ceramics I**

Introduction to ceramic design and methods including hand building techniques and use of the potter's wheel. Explores clays, glazing, and firing techniques including stoneware and raku. Lab required. 3 credit hours.

**ARTS 2347 Ceramics II**

Further study of ceramic design, method, and media with exploration of various clays, glaze compositions, and kiln operations. Emphasis on creative expression and personal style. Lab required. Prerequisite: ARTS 2346. 3 credit hours.

**ARTS 2356 Photography I**

Introduction to photography: basic camera operations and darkroom techniques; emphasis on visual imagination and design. Lab required. 3 credit hours.

**ARTS 2357 Photography II**

Intermediate black-and-white course; emphasis on developing a visual language, problem solving, craftsmanship, and learning to edit personal work. Technical considerations include print and negative quality, use of studio lighting, and large format cameras. Lab required. Prerequisite: ARTS 2356. 3 credit hours.

**ARTS 2366 Watercolor I**

Introduction to watercolor including instruction in the use of brushes, papers, materials, and various painting techniques on wet and dry paper. Gain experience in mixing colors, color methods, and problem solving in the use of technique and in skillful observation of composition and painting style. Lab required. Prerequisite: ARTS 1316. 3 credit hours.

**ARTS 2367 Watercolor II**

Increases the student's ability to master technique, identify the different pigment properties of color, and determine their best use. Exploration of different tools, papers, materials, and techniques will be practiced. Emphasis on personal expression and painting style. Lab required. Prerequisite: ARTS 2366. 3 credit hours.

**ARTS 2370 Photography Portrayal**

Various photographic portrait styles, including both commercial and personal aspects of photographing the human subject. Covers documentary photography of people, the environmental portrait, and studio portraits. Creative approaches to the subject are encouraged. Lab required. Prerequisite: ARTS 2357 or equivalent. 3 credit hours.

**ARTS 2371 Contemporary Studies in Visual Arts/Photography**

In-depth study of concerns and practices in the visual arts. May be repeated for credit as topics change. Lab required. 3 credit hours.

**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. Prerequisite: ARTS 2357.

NOTE: Capstones may be found in each program.



**Alternative Processes**

Experimental, antique, and non-silver printing processes as well as unconventional modes of presentation. Prerequisite: ARTS 2356; Recommended Prerequisite: ARTS 2357.

**Architectural Photography**

Explores the production of architectural images that go beyond mere documentation. Technical considerations include view camera technique. Prerequisite: ARTS 2357.

**Collage/Montage**

Contemporary aesthetic issues involving the use of multiple images and mediums. Prerequisite: ARTS 2357.

**Color Photography**

Historical background and current trends in the aesthetic and technical elements inherent to color image-making. Prerequisite: ARTS 2357.

**Digital Photography I/PhotoShop**

Students will use a variety of image capture and output devices while obtaining proficiency with related software (Adobe PhotoShop) for the purpose of image manipulation and enhancement. Prerequisite: ARTS 2356; Recommended Prerequisite: ARTS 2357.

**Digital Photography II/Magazine Layout**

Students who are interested in having their photographic work published will learn the keys to working with magazine editorial art directors, designers, and creative directors. Emphasis is on editorial shooting assignments and magazine design. Students will produce computer layouts in Quark XPress, explore the elements of scanning and PhotoShop, learn how to budget and estimate an editorial assignment, and learn how to enlist in a stock photo agency. Each student will complete the course with a body of photographs in a magazine-style presentation.

**Digital Photography II/PhotoShop**

Advanced overview of and experience with digital photography. Prerequisite: ARTS 2371-Digital Photography I/PhotoShop.

**Documentary Photography**

Production of social documentary photographs centered on a community phenomenon or dealing with issues in the urban area. Prerequisite: ARTS 2357.

**Fashion Photo/Lighting**

Historical and current advertising fashion techniques. Emphasis on cultural contributions and outside artistic influence. Prerequisite: ARTS 2357.

**Hand-Coloring Photography**

Includes archival processing, toning, photographic paper selection for hand-coloring, techniques, and subject material. Prerequisite: ARTS 2356.

**Infrared Photography**

Various methods and techniques involving the use of this scientific material for artistic purposes. Prerequisite: ARTS 2357.

**Landscape Photography**

Explores aesthetic and technical aspects of landscape as a subject, and examines 18th century, modernist, and post-modernist approaches. Prerequisite: ARTS 2357.

**Large Format Photography**

Examines the technical requirements of large format cameras and the resulting aesthetic contribution to the photographic image. Prerequisite: ARTS 2357.

**Monoprint**

In depth study of monoprint methods include relief, intaglio, and monotype. Emphasis the development of printed images through multi-color, mixed media applications.

**Mixed Media Photo**

Introduces students to the concept of mixing multiple materials as a way of expressing their artistic ideas. Students will use photography as their cornerstone and incorporate into that elements from other disciplines such as painting or sculpture. Prerequisite: ARTS 2357 or consent of instructor.

**Night Photography**

Introduces a new photographic environment along with its accompanying technical requirements. Prerequisite: ARTS 2356.

**Photo Collage**

Designed to merge artistic considerations with the "digital age". Students will produce artwork aided by technology as opposed to technology-driven art. Prerequisites: ARTS 2356 and basic computer literacy; Corequisite: ARTS 1311.

**Photo Book Making**

A disciplined craft approach to the presentation of visual art in book form. Students will address the special problems related to the preparation of an image book including editing, sequencing, overall design considerations, and book construction methods. Prerequisite: ARTS 2357.

**Photogravure**

Photogravure is a photographic image produced from an etched copper plate. Students will make a regular photographic negative, turn it into a positive, produce an etched copper plate of the image, and print the etched plate on fine art paper. Students will leave class with a limited edition portfolio. Prerequisite: ARTS 2323 or 2357.

**Pinhole Photography**

Exploration of lensless photography. Pinhole cameras will be designed and constructed from unique materials that students choose to use for fabrication. Prerequisite: ARTS 2357.

**Platinum/Palladium Photography**

History of non-silver photography with emphasis on platinum/palladium processes. Creative experimentation encouraged. Prerequisite: ARTS 2357.

**Portfolio**

Advanced study for the development of a high quality portfolio. Courses available in various art areas including painting, color theory, drawing, ceramics, sculpture, papermaking, printmaking, and photography. Prerequisite: Advanced class in field of study.

**Portfolio: Ingram**

Advanced study in drawing or painting for the development of a high quality portfolio. Students will work on-location or in the studio at the Hill Country Arts Foundation in Ingram, Texas. Prerequisite: Advanced course in field of study.

**Portfolio: Seminar**

Provides advanced artists with continuous critical feedback on work in progress. Weekly group critiques will be alternated with panel discussions, guest lecturers, and museum/gallery visits. Prerequisite: ARTS 2357.

**Portraiture: Mixed Media**

Concentration on the portrait as subject matter. Photographs and models will be used. A variety of media will be explored including pencil, charcoal, and acrylic. Prerequisite: ARTS 1316.

**Portrayal/Lighting the Subject**

Emphasis on lighting people in the studio and in the environment. Covers color and black-and-white films. Prerequisite: ARTS 2357.

**Series/Sequence Photography**

Investigates photographic images in context to the postmodern concepts of series, sequence, and scale. Prerequisite: ARTS 2356.

**View Camera/Zone System**

Examines the technical requirements of large format cameras and the resulting aesthetic contribution to the photographic image. Prerequisite: ARTS 2357.

**Visual Extensions**

The student dissects and analyzes creativity and the creative process. Through problem solving the photographer breaks from conventional means of working and develops new unique images. Major subjects covered include attitude, skill, knowledge profile, visual perception, creativity, criticism vs. discussion, intention, rework, and creative contradictions. Prerequisite: ARTS 2356; Recommended Prerequisite: ARTS 2357.

**ARTS 2372 History of Photography**

Study of the emergence and development of the first technological art form. Emphasis on 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.

**ARTS 2389 Academic Co-op Arts/Photography**

Integrates on-campus study with practical hands-on work experience in art/photography. In conjunction with class seminars, the student will set specific goals and objectives in the study of art. Contact the Cooperative Work Experience Office. 3 credit hours.

**BCIS 1305 Business Computer Applications**

Study of computer terminology, hardware, software, operating systems, and information systems relating to the business environment. The main focus of this course is on business applications of software such as word processing, spreadsheets, databases, presentation graphics, and business-oriented utilization of the Internet. Programming concepts are also introduced. Lab required. 3 credit hours.

**BCIS 1332 COBOL I**

Examines structured program design, development, testing, implementation, and documentation of common business applications using COBOL. Lab required. Prerequisite: COSC 1300. 3 credit hours.

**BCIS 2332 COBOL II**

Emphasis on advanced techniques, disk accessing and storage, direct and sequential access, and console input and output. Lab required. Prerequisite: BCIS 1332. 3 credit hours.

**BCIS 2390 Software Engineering**

Study of software design, implementation, and validation techniques through team projects. Prerequisite: One-year experience with a programming language or consent of instructor. Lab required. 3 credit hours.

**BIOL 1322 General Nutrition**

Nutrients and nutritional processes including functions, food sources, digestion, absorption, and metabolism with application to normal and therapeutic human nutritional needs. For biology and nutrition majors. 3 credit hours.

**BIOL 1323 Nutrition for Today**

Examines what role nutrients serve in the body, their sources, and how the body absorbs and utilizes them. Emphasizes latest nutritional information, especially implications for recommended eating patterns. For anyone interested in nutrition and how it relates to overall health and wellness; not intended for allied health or nutrition majors. 3 credit hours.

**BIOL 1370 Nutrition for Fitness and Sport**

Explores nutrient intake for energy systems during exercise training, competition, and improved performance. Nutrients, amounts needed, how they work in the body, and how they support and enhance physical activity will be addressed. Body weight and composition and weight gain or loss through exercise and diet are also discussed. Myths, misconceptions, and quackery in the sport nutrition field will be discussed and sound information learned. 3 credit hours.

NOTE: Capstones may be found in each program.

**BIOL 1406 General Biology I**

For science majors. Current knowledge in the fundamentals of biology from the molecular to cellular level of organization. General topics covered include basic biochemistry, metabolism, energetics, cell structure, DNA, genetics, viruses, and bacteria. Lab required. 4 credit hours.

**BIOL 1407 General Biology II**

For science majors. Continuation of BIOL 1406. The biology of the protistans, fungi, plants, and animals with emphasis on the body systems. Also includes development, diversity, animal behavior, and ecology. Dissection included. Lab required. Prerequisite: BIOL 1406. 4 credit hours.

**BIOL 1408 Introduction to Biology I**

For non-science majors. Survey of biology including molecular and cellular biology, genetics, DNA, microbiology, evolution, and ecology. Emphasis upon current topics in biology. Lab required. 4 credit hours.

**BIOL 1409 Introduction to Biology II**

For non-science majors. Continuation of BIOL 1408. The biology of the protistans, fungi, plants, and animals with emphasis on general human anatomy and physiology. Current topics in biology will be discussed. Dissection included. Lab required. Prerequisite: BIOL 1408. 4 credit hours.

**BIOL 1411 General Botany**

Study of structure and function of plants. Includes plant cells, tissues, organs, an evolutionary survey, and life histories of algae, fungi, mosses, liverworts, ferns, and seed-producing plants. Plants' reproductive and functional interactions with their environment and with man. Lab required. 4 credit hours.

**BIOL 1424 Systematic Botany**

Introduction to plant nomenclature, identification, classification, and evolutionary relationships of vascular plants with emphasis on flowering plants. Construction and use of taxonomic keys, role of herbaria, and collection techniques will be covered in both lecture and lab. Includes field trips to study local, state, and regional flora. Lab required. Prerequisite: BIOL 1411. 4 credit hours.

**BIOL 1470 Marine Biology**

Morphological, physiological, and ecological adaptations of marine organisms to their environment. Lab required, including an international field trip. Prerequisite: BIOL 1406 or 1408, or consent of instructor. Preferred Prerequisite: BIOL 1407 or 1409. 4 credit hours.

**BIOL 1471 Human Anatomy and Physiology Basics**

Introductory course surveying the structure and function of the human body, including discussion and study of cells, tissues, organs, and systems. Not intended for allied health or science majors. Lab required. 4 credit hours.

**BIOL 1472 Field Biology**

An introductory course that stresses the techniques used to analyze and solve contemporary ecological problems that affect plant and animal communities. Covers basic principles in ecology. Lab required. 4 credit hours.

**BIOL 2389 Academic Co-op Biology**

Integrates on-campus study with practical hands-on work experience in biology. In conjunction with class seminars, the student will set specific goals and objectives in the study of biology. Contact the Cooperative Work Experience Office. 3 credit hours.

**BIOL 2401 Anatomy and Physiology I**

Study of the comparative structure and function of the mammalian system with emphasis on anatomy. Includes a review of cell structure and function and an in-depth discussion of tissues, skin, skeletal, muscular, and nervous systems. Physiology of the systems is stressed. Laboratory section stresses system anatomy and includes dissection of a mammal, as well as study of models, slides, and charts correlating with lecture topics. Lab required. Prerequisite: BIOL 1406, two years of high school biology within the last five years, or consent of program coordinator if transcripts show an equivalent biology majors course taken as part of an AS or BS degree. Biology placement test may be requested. 4 credit hours.

**BIOL 2402 Anatomy and Physiology II**

Continued study of the structure and function of the mammalian system with emphasis on physiology. System topics include endocrine, cardiovascular, lymphatic, immune, respiratory, digestive, nutrition and metabolism, urinary, reproductive, heredity, and development. Lab includes study of models, slides, and charts as well as correlated physiological experiments and continued mammalian dissection. Lab required. Prerequisite: BIOL 2401 within the last five years. 4 credit hours.

**BIOL 2406 Environmental Biology**

Introduction to contemporary ecological problems of plant and animal communities. An analysis of ecosystems at the species, population, and community levels of organization, with a discussion of the effects of human interaction. Lab required, including field trips. Prerequisite: BIOL 1406 or consent of instructor. 4 credit hours.

**BIOL 2416 Genetics**

Principles of classical and molecular genetics and the function and transmission of hereditary material. Explores population genetics and genetic engineering, with special attention paid to human genetics and current research in genetics. Includes field trips to genetic laboratories. Lab required. Prerequisite: BIOL 1406. Credit toward a degree will not be given for both BIOL 2416 and 2470. 4 credit hours.

**BIOL 2420 Microbiology**

Principles of microbiology including classification, cell structure, metabolism, and historical concepts of microorganisms such as bacteria, viruses, fungi, protozoa, and rickettsia. Emphasis on infectious diseases and immunology. Practical microbiology will include diagnostic microbiology of water, food, sewage, soil, and industrial applications. Lab methods are stressed and experimentation with pure cultures of medical, environmental, and industrial importance are studied extensively. Lab required. Prerequisite: BIOL 2401 within the last five years; Prerequisite/Corequisite: BIOL 2402. 4 credit hours.

**BIOL 2428 Comparative Vertebrate Anatomy**

Comparative anatomy of representative vertebrates with emphasis on comparisons of organ systems, vertebrate adaptations, and evolution. Includes dissections of representative vertebrates. Lab required. Prerequisite: BIOL 1407. 4 credit hours.

**BIOL 2470 Human Genetics**

Principles of molecular and classical genetics and the function and transmission of hereditary material as applied to the human. Medical applications include genetic diseases, genetic counseling, and genetics involved in cancer and other acquired diseases. Includes field trips to genetic laboratories. Lab required. Prerequisite: BIOL 1406. Credit toward a degree will not be given for both BIOL 2416 and 2470. 4 credit hours.

**BITC 1311 Introduction to Biotechnology**

An introduction to biotechnology including career exploration, history and applications of DNA/RNA technology, molecular biology, bioethics, and laboratory safety practices. Lab required. 3 credit hours.

**BITC 1391 Special Topics in Biological Technology/Technician**

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. 3 credit hours.

**Biomedical Law and Ethics**

Interdisciplinary study of the ethics, law, and psychosocial issues of biotechnology fields and their ramifications in today's world; national and international implications will be discussed.

**BITC 1401 Biotechnology Laboratory Instrumentation**

Theory, applications, and operation of various analytical instruments. Separation and identification techniques including electrophoresis, spectrophotometry, and chromatography emphasized. Lab required. Prerequisite: BITC 1402. 4 credit hours.

**BITC 1402 Biotechnology Laboratory Methods and Techniques**

A study of laboratory operations, management, equipment, instrumentation, quality control techniques, and safety procedures. Laboratory practice in using pH meters, mixing buffers, performing measurements, preparing solutions, and performing separatory techniques. Lab required. 4 credit hours.

**BITC 2386 Internship – Biological Technology/Technician**

An experience external to the college for an advanced student in a specialized field involving a written agreement between the educational institution and a business or industry. Mentored and supervised by a workplace employee, the student achieves objectives that are developed and documented by the college and that are directly related to specific occupational outcomes. This may be a paid or unpaid experience. This course may be repeated if topics and learning outcomes vary. Prerequisite: Consent of program coordinator. Contact Cooperative Work Experience Office. 3 credit hours.

**BITC 2387 Internship – Biological Technology/Technician (Capstone)**

An experience external to the college for an advanced student in a specialized field involving a written agreement between the educational institution and a business or industry. Mentored and supervised by a workplace employee, the student achieves objectives that are developed and documented by the college and that are directly related to specific occupational outcomes. This may be a paid or unpaid experience. This course may be repeated if topics and learning outcomes vary. Prerequisite: Consent of program coordinator. Contact Cooperative Work Experience office. 3 credit hours.

**BITC 2401 Molecular Biology Techniques**

An introduction to the theory and laboratory techniques in molecular biology with an emphasis on proteins, gene expression and regulation, recombinant DNA, and nucleic acids. Lab required. Prerequisites: BITC 1401 and 1402. 4 credit hours.

**BITC 2431 Cell Culture Techniques**

A study of cell culture techniques. Laboratory emphasis on the principles and practices of initiation, cultivation, maintenance, preservation of cell lines, and applications. Lab required. Prerequisites: BIOL 1406 and BITC 1311. 4 credit hours.

NOTE: Capstones may be found in each program.



**BMGT 1301 Supervision**

A study of the role of the supervisor. Managerial functions as applied to leadership, counseling, motivation, and human skills are examined. 3 credit hours.

**BMGT 1302 Principles of Retailing**

Introduction to the retailing environment and its relationship to consumer demographics, trends, and traditional/nontraditional retailing markets. The employment of retailing techniques and the factors that influence modern retailing. 3 credit hours.

**BMGT 1303 Principles of Management**

Concepts, terminology, principles, theory, and issues that are the substance of the practice of management. 3 credit hours.

**BMGT 1305 Communications in Management**

Basic theory and processes of communication skills necessary for the management of an organization's workforce. 3 credit hours.

**BMGT 1307 High Performance Work Teams**

Basic principles of building and sustaining teams in organizations including team dynamics and process improvement. 3 credit hours.

**BMGT 1333 Principles of Selling**

Introduction to the selling process and its application to all forms of sales. Identification of the elements of the communication process between buyers and sellers in business and examination of the legal regulations and ethical issues of business which affect salespeople. 3 credit hours.

**BMGT 1348 Marketing Research and Strategies**

Designed to enhance student understanding of the marketing environment and the dynamic interrelationships of the functions of marketing price, channels of distribution, promotion, and product responsibility. Provides a simulated marketing environment for experience in marketing decision-making and provides practical experiences in analyzing market cases for the students. 3 credit hours.

**BMGT 1349 Advertising and Sales Promotion**

Introduction to the advertising principles, practices, and multi-media of persuasive communication including buyer behavior, budgeting, and regulatory constraints. 3 credit hours.

**BMGT 1370 Negotiations and Conflict Management**

Theories which aid in the diagnosis of interpersonal and intergroup conflict. The role of manager as negotiator, intermediary, and problem solver. 3 credit hours.

**BMGT 1372 Project Management**

Critical path methods for planning and controlling projects including time/cost tradeoffs, resource utilization, and stochastic

considerations. Managerial considerations include project costing, organizational design, and conflict resolution. Applications include system start-up/shutdown, new product introductions, management of research, and construction projects. 3 credit hours.

**BMGT 1381 Cooperative Education -  
General Retailing Operations**

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

**BMGT 1382 Cooperative Education - Business  
Administration Management, General**

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and students. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

**BMGT 1391 Special Topics in Business  
Administration and Management**

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. 3 credit hours.

**BMGT 1396 Special Topics in General  
Retailing Operations**

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. 3 credit hours.

**Sales Management**

Sales Management has the primary goal of teaching people how to manage others in the workplace. In this course students practice determining the needs of subordinates, cohorts, and superiors; controlling the work environment so as to encourage personnel to achieve; understanding necessary practices for promoting personnel so that they can fit into their new positions well; and evaluating practices so as to make adjustments as needed. Students also perform activities that teach them how adult learning differs from non-adult learning.

**BMGT 2309 Leadership**

Concepts of leadership and its relationship to management. Prepares the student with leadership and communication skills needed to inspire and influence. 3 credit hours.

**BMGT 2310 Financial Management**

*Formerly BMGT 2374*

Emphasis on the development and use of accounting information to support managerial decision-making processes in manufacturing, service, and for-profit settings. Topics include managerial concepts and systems, various analysis for decision making, and planning and control. 3 credit hours.

**BMGT 2311 Management of Change**

Knowledge, skills, and tools that enable a leader/organization to facilitate change in a pro-active participative style. 3 credit hours.

**BMGT 2331 Total Quality Management**

Quality of productivity in organizations. Includes planning for quality throughout the organization, analysis of costs of quality, and employee empowerment. 3 credit hours.

**BMGT 2341 Strategic Management**

Strategic management process involving analysis of how organizations develop and implement a strategy for achieving organizational objectives in a changing environment. 3 credit hours.

**BMGT 2370 Project Scope and Risk Management**

A two-part course that is concerned with the identification, analysis, and mitigation of threats to project management elements and the process of deciding what project to do, defining the plan for the desired outcome, and developing a process for controlling changes to the project. 3 credit hours.

**BMGT 2382 Cooperative Education - Business Administration and Management, General (Capstone)**

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

**BUSG 1315 Small Business Operations**

A course in the unique aspects of managing a small business. Topics address management functions including how managers plan, exercise leadership, organize, and control the operation. 3 credit hours.

**BUSG 1341 Small Business Financing**

A study of the financial structure of small business. Topics address business finance, including where the funds come from and what they are used for; budgeting including planning and preparing, record keeping, taxation, insurance, and banking. 3 credit hours.

**BUSG 2309 Small Business Management**

A course on how to start and operate a small business. Topics include facts about a small business, essential management skills, how to prepare a business plan, financial needs, marketing strategies, and legal issues. 3 credit hours.

**BUSI 1301 Introduction to Business**

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**

Personal financial issues including financial planning, insurance, budgeting, credit, home ownership, savings, and tax problems. Lab required. 3 credit hours.

**BUSI 2301 Business Law**

General principles of the law of contracts, property, and torts. Includes the historical and ethical background of the law and current legal principles. 3 credit hours.

C

**CDEC (Child Development)**

See TECA for transfer courses.

**CDEC 1313 Curriculum Resources for Early Childhood Programs**

A study of the fundamentals of curriculum design and implementation in developmentally appropriate programs for children. Lab required. 3 credit hours.

**CDEC 1315 Multicultural/Multilingual Education**

An overview of multicultural education to include relationship with the family and community to develop awareness and sensitivity to diversity related to individual needs of children. Lab required. 3 credit hours.

NOTE: Capstones may be found in each program.

***CDEC 1317 Child Development Associate Training I***

Based on the requirements for the Child Development Associate National Credential (CDA). Three of the 13 functional areas of study include family, program management, and professionalism. Topics on CDA overview, general observation skills, and child growth and development overview. Lab required. 3 credit hours

***CDEC 1319 Child Guidance***

An exploration of guidance strategies for promoting prosocial behaviors in children. Emphasis on positive guidance principles and techniques, family involvement and cultural influences. Practical application through direct participation with children. Lab required. 3 credit hours.

***CDEC 1321 The Infant and Toddler***

A study of appropriate infant and toddler programs (birth to age 3), including an overview of development, quality caregiving routines, appropriate environments, materials and activities, and teaching/guidance techniques. Lab required. 3 credit hours.

***CDEC 1323 Observation and Assessment***

A study of observation techniques of child development assessment skills and techniques of children. Lab required. 3 credit hours.

***CDEC 1327 Family Child Care***

A study of non-center based early learning facilities. Emphasis on the establishment and management of quality programs. Lab required. 3 credit hours.

***CDEC 1330 Growth and Development: 6-14 Years***

A study of the principles of child growth and development from six through 14 years. Focus on physical, cognitive, social, and emotional domains of development. Lab required. 3 credit hours.

***CDEC 1334 School-Age Activities and Group Dynamics***

This course explores the theoretical, developmental, and practical application basis for school-age activities as a means of facilitating children's education and development. Lab required. 3 credit hours.

***CDEC 1335 Early Childhood Development: 3-5 Years***

This course covers the principles of normal growth and development from three to five years. Emphasis is on physical, emotional, and social development. Lab required. 3 credit hours.

***CDEC 1339 Early Childhood Development: 0-3 Years***

This course covers the principles of normal growth and development from conception through three years of age. Emphasis is on physical, intellectual, and social development. Lab required. 3 credit hours.

***CDEC 1340 Instructional Techniques for Children with Special Needs***

Exploration of development and implementation of curriculum for children with special needs. Lab required. 3 credit hours.

***CDEC 1342 Intro to Montessori***

This course summarizes specific areas in childcare and development and prepares the student for entry into the Montessori program. These areas include observation, administration, issues of childcare, self-development, health, and safety. Lab required. 3 credit hours.

***CDEC 1356 Emergent Literacy for Early Childhood***

An exploration of principles, methods, and materials for teaching young children language and literacy through a play-based integrated curriculum. Lab required. 3 credit hours.

***CDEC 1357 Math and Science for Early Childhood***

An exploration of principles, methods, and materials for teaching children math and science concepts through discovery and play. Lab required. 3 credit hours.

***CDEC 1358 Creative Arts for Early Childhood***

An exploration of principles, methods, and materials for teaching children music, movement, visual arts, and dramatic play through process-oriented experiences to support divergent thinking. Lab required. 3 credit hours.

***CDEC 1359 Children with Special Needs***

A survey of information regarding children with special needs including possible causes and characteristics of exceptionalities, intervention strategies, available resources, referral processes, the advocacy role, and legislative issues. Lab required. 3 credit hours.

***CDEC 1370 Prevention of Child Abuse***

Methods used by childcare workers in the identification of physical, emotional, and sexual abuse of children. Includes methods of referral to public and private agencies that deal with investigation and treatment. Lab required. 3 credit hours.

***CDEC 1394 Special Topics in Early Childhood***

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. 3 credit hours.

***CDEC 1396 Special Topics in Administration of Programs for Children***

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. 3 credit hours.

NOTE: Italicized course numbers and titles denote Workforce Education Program courses.

**CDEC 2166 Practicum - Child Development and Early Childhood - Provider/Assistant (Capstone)**

Practical general training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be for pay or no pay. This course may be repeated if topics and learning outcomes vary. Lab required. Prerequisite: Consent of program coordinator. 1 credit hour.

**CDEC 2322 Child Development Associate Training II**

A continuation of the study of the requirements for the Child Development Associate National Credential (CDA). The six functional areas of study include safe, healthy, learning environment, self, social, and guidance. Lab required. 3 credit hours.

**CDEC 2324 Child Development Associate Training III**

A continuation of the study of the requirements for the Child Development Associate National Credential (CDA). The four functional areas of study are creative, cognitive, physical, and communication. Lab required. Prerequisites: CDEC 1317 and 2322. 3 credit hours.

**CDEC 2326 Administration of Programs for Children I**

A practical application of management procedures for early child care education programs, including a study of planning, operating, supervising, and evaluating programs. Topics on philosophy, types of programs, policies, fiscal management, regulations, staffing, evaluation, and communication. Lab required. 3 credit hours.

**CDEC 2328 Administration of Programs for Children II**

An in-depth study of the skills and techniques in managing early care and education programs, including legal and ethical issues, personnel management, team building, leadership, conflict resolution, stress management, advocacy, professionalism, fiscal analysis and planning parent education/partnerships, and technical applications in programs. Lab required. Prerequisite: CDEC 2326. 3 credit hours.

**CDEC 2336 Administration of Programs for Children III**

An advanced study of the skills and techniques in managing early child care education programs. Lab required. Prerequisite: CDEC 2328. 3 credit hours.

**CDEC 2341 The School Age Child**

A study of appropriate programs for the school age child (5 to 13 years), including an overview of development, appropriate environments, materials, and activities and teaching/guidance techniques. Lab required. 3 credit hours.

**CDEC 2385 Cooperative Education in Child Development**

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. Prerequisite: Consent of program coordinator. 3 credit hours.

**CETT 1303 DC Circuits**

A study of the fundamentals of direct current including Ohm's law, Kirchoff's laws and circuit analysis techniques. Emphasis on circuit analysis of resistive networks and DC measurements. Lab required. 3 credit hours.

**CETT 1305 AC Circuits**

A study of alternating current including series and parallel AC circuits, phasors, capacitive and inductive networks, transformers, and resonance. Lab required. 3 credit hours.

**CETT 1325 Digital Fundamentals**

An entry-level course in digital electronics covering number systems, binary mathematics, digital codes, logic gates, Boolean algebra, Karnaugh maps, and combinational logic. Emphasis on circuit logic analysis and troubleshooting digital circuits. Lab required. 3 credit hours.

**CETT 1329 Solid State Devices**

A study of diodes and bipolar semiconductor devices, including analysis of static and dynamic characteristics, bias techniques, and thermal considerations of solid state devices. Lab required. 3 credit hours.

**CETT 1341 Solid State Circuits**

A study of various semiconductor devices incorporated in circuits and their applications. Emphasis on circuit construction, measurements, and analysis. Lab required. 3 credit hours.

**CETT 1380 Cooperative Education - Computer Engineering Technology/Technician**

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

NOTE: Capstones may be found in each program.



**CETT 1403 DC Circuits**

A study of the fundamentals of direct current including Ohm's law, Kirchoff's laws and circuit analysis techniques. Emphasis on circuit analysis of resistive networks and DC measurements. Lab required. 4 credit hours.

**CETT 1405 AC Circuits**

A study of the fundamentals of alternating current including series and parallel AC circuits, phasors, capacitive and inductive networks, transformers, and resonance. Lab required. 4 credit hours.

**CETT 1409 DC-AC Circuits**

Fundamentals of DC circuits and AC circuits operation including Ohm's law, Kirchoff's laws, networks, transformers, resonance, phasors, capacitive and inductive and circuit analysis techniques. Lab required. 4 credit hours.

**CETT 1421 Electronic Fabrication**

A study of electronic circuit fabrication techniques including printed circuit boards, wire wrapping, bread boarding, and various soldering techniques. Lab required. 4 credit hours.

**CETT 1425 Digital Fundamentals**

An entry-level course in digital electronics covering number systems, binary mathematics, digital codes, logic gates, Boolean algebra, Karnaugh maps, and combinational logic. Emphasis on circuit logic analysis and troubleshooting digital circuits. Lab required. 4 credit hours.

**CETT 1429 Solid State Devices**

A study of diodes and bipolar semiconductor devices, including analysis of static and dynamic characteristics, bias techniques, and thermal considerations of solid state devices. Lab required. 4 credit hours.

**CETT 1431 Technical Programming**

Introduction to a high level programming language such as BASIC, PASCAL, or "C." Topics include structured programming and problem solving as they apply to technical applications. Lab required. 4 credit hours.

**CETT 1441 Solid State Circuits**

A study of various semiconductor devices incorporated in circuits and their applications. Emphasis on circuit construction, measurements, and analysis. Lab required. 4 credit hours.

**CETT 1445 Microprocessor**

An introductory course in microprocessor software and hardware, its architecture, timing sequence, operation, and programming, and discussion of appropriate software diagnostic language and tools. Lab required. Prerequisite: CETT 1425 or consent of instructor. 4 credit hours.

**CETT 1457 Linear Integrated Circuits**

A study of the characteristics, operations, stabilization, testing, and feedback techniques of linear integrated circuits. Application in computation, measurements, instrumentation, and active filtering. Lab required. Prerequisite: CETT 1405 or consent of instructor. 4 credit hours.

**CETT 2333 Digital Computer Circuits**

A study of the three major component systems of a digital computer including arithmetic logic operations, RAM and ROM memory systems, and control systems. Lab required. 3 credit hours.

**CETT 2380 Cooperative Education - Computer Engineering Technology/Technician**

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

**CETT 2439 Amplifier Analysis**

Advanced study of electronic amplifier applications including op-amps, audio amps, video amps, and other high frequency amplifiers. Lab required. Prerequisite: CETT 1429 or consent of instructor. 4 credit hours.

**CHEM 1170 Biochemistry**

For science majors. Explores catabolism and anabolism with excursion into areas of current biochemical investigations. Lab required. Prerequisites: BIOL 1406 and CHEM 1411 within the last 5 years. 1 credit hour.

**CHEM 1405 Introduction to Chemistry I**

For non-science majors. Survey of chemistry including scientific calculations, chemical equations, theory of atoms and bonding, states of matter, nuclear chemistry, elementary thermodynamics, and acid-base chemistry. Lab and recitation required. Prerequisite: high school algebra or equivalent within the last 5 years. 4 credit hours.

**CHEM 1407 Introduction to Chemistry II**

Focuses on organic chemistry and biochemistry. Discussions routinely include questions and/or applications from the fields of nutritional and consumer chemistry. Lab and recitation required. Prerequisite: CHEM 1405 within the last 5 years with a grade of "C" or better. 4 credit hours.

**CHEM 1411 General Chemistry I**

For science majors, pre-medical, pre-dental, or engineering students. Includes stoichiometry, ideal gas behavior, atomic theory, periodic trends, VSEPR theory, thermochemistry, and bonding theory. Lab and recitation required. Prerequisites: MATH 1314 within the last 5 years with a grade of "C" or better, and either 1 year of high school chemistry or CHEM 1405 within the last 5 years with a grade of "C" or better. 4 credit hours.

**CHEM 1412 General Chemistry II**

Addresses topics in chemical equilibria, acid-base theory, solubility, electrochemistry, nuclear chemistry, organic chemistry, biochemistry, and states of matter. Lab and recitation required. Prerequisite: CHEM 1411 within the last 5 years with a grade of "C" or better. 4 credit hours.

**CHEM 1419 Introduction to Organic/Biochemistry**

Introduction to organic chemistry and biochemistry for technical applications. Provides general preparation for entry-level technical students in biotechnology or laboratory biology. Not designed for chemistry majors. Lab required. Prerequisite: CHEM 1405 or 1411. 4 credit hours.

**CHEM 2401 Analytical Chemistry**

Lab intensive course focusing on the principles and problems associated with quantitative chemical analysis. Explores the techniques and precautions required to quantitatively measure a variety of chemical species utilizing volumetric, gravimetric, and spectroscopic methods. Introduces experimental design and the statistical aspects of data treatment. Lab required. Prerequisite: CHEM 1412 within the last 5 years with a grade of "C" or better. 4 credit hours.

**CHEM 2423 Organic Chemistry I**

Study of carbon chemistry that considers covalent bonding, nomenclature, stereochemistry, structure and reactivity, reaction mechanisms, functional groups, and introductory synthesis. Lab experiments develop organic techniques. Lab and recitation required. Prerequisite: CHEM 1412 within the last five years with a grade of "C" or better. 4 credit hours.

**CHEM 2425 Organic Chemistry II**

Includes methods of structural analysis, advanced synthesis and reactions, biochemistry, and organometallic topics. Lab experiments emphasize techniques in synthesis, purification, and analysis. Lab and recitation required. Prerequisite: CHEM 2423 within the last 5 years with a grade of "C" or better. 4 credit hours.

**CHEM 2389 Academic Co-op Chemistry**

Integrates on-campus study with practical hands-on work experience in chemistry. In conjunction with class seminars, the student will set specific goals and objectives in the study of chemistry. Contact the Cooperative Work Experience Office. 3 credit hours.

**CHIN 1411 Beginning Chinese I**

Introduction to the basic skills of speaking, reading, writing, and listening with attention to selected aspects of Chinese culture; designed for students with little or no previous language training. Instruction is enhanced by the use of tapes, slides, and video cassettes. 4 credit hours.

**CHIN 1412 Beginning Chinese II**

Continuation of CHIN 1411. Prerequisite: CHIN 1411. 4 credit hours.

**CHIN 2311 Intermediate Chinese I**

Review and application of skills in listening comprehension, speaking, reading, and writing. Emphasizes conversation, vocabulary acquisition, reading, composition, and culture. Prerequisite: CHIN 1412. 3 credit hours.

**CHIN 2312 Intermediate Chinese II**

Continuation of CHIN 2311, emphasizing conversation and reading skills. Prerequisite: CHIN 2311. 3 credit hours.

**COMM 1307 Introduction to Mass Communication**

Study of mass media in the United States with emphasis on newspapers, magazines, radio, and television; history of mass media; and the role and responsibility of mass media in modern society. 3 credit hours.

**COMM 1316 Photo Illustration**

Problems and practices of photographers in advertising. Single, multiple, and electronic flash will be studied and put to use. Emphasis on lighting, large format cameras, and product photography. Lab required. Prerequisite: ARTS 2357 or consent of instructor. 3 credit hours.

**COMM 1317 Applied Photography**

Photography students work directly with the CCCCD Public Relations and Publications Department on a photographer-client problem-solving basis. Students will produce printed materials providing the cornerstone of a professional photographic portfolio. Lab required. Prerequisite: ARTS 2357. 3 credit hours.

**COMM 2331 Radio and TV Announcing**

Principles of, and practice in, radio and TV announcing. Includes the study of voice (diction, pronunciation, and delivery) as it relates to mediated contexts; also provides practical experience in news announcing, interviewing, and acting in commercials. 3 credit hours.

**COMM 2332 Radio/Television News**

The preparation of news and analysis of news styles for the electronic media. 3 credit hours.

NOTE: Capstones may be found in each program.

**COMM 2339 Writing for Radio, TV, and Film**

Designed to train the student in all typical forms of broadcast and film writing, including news, commercial copy, critique and commentary, radio theatre, comedy and dramatic teleplay, and screenplay. Course provides both writing and production experiences. 3 credit hours.

**COMM 2389 Academic Co-op Communication**

*For Radio, TV, and Film students only.* Integrates on-campus study with practical hands-on work experience in communication. In conjunction with class seminars, the student will set specific goals and objectives in the study of communication. Contact the Cooperative Work Experience Office. 3 credit hours.

**COSC 1300 Computer Essentials**

Study of basic hardware, software, operating systems, and current applications and issues. Required labs introduce students to Windows, the Internet, word processing, spreadsheets, databases, and programming concepts. Lab required. 3 credit hours.

**COSC 1320 C++ for Programmers**

An introduction to the C/C++ language for students with at least one year of experience in structured programming. Not for beginning programmers. Lab required. Prerequisite: 1 year of experience in structured programming and consent of program coordinator. 3 credit hours.

**COSC 1415 Java for Non-Programmers**

Introduction to programming for the World Wide Web (WWW). Design Java applets to be transported to the Internet and executed in WWW browsers. Lab required. Prerequisites: COSC 1300 and IMED 1301, or consent of instructor. 4 credit hours.

**COSC 1420 Introduction to Programming with C++**

An introduction to structured programming using the C++ language. This class is designed for students with no programming experience or with less than one year of structured programming experience. Lab required. Prerequisite: COSC 1300; Corequisite: MATH 1314. 4 credit hours.

**COSC 2315 Object-Oriented Data Structures with C++**

Using C++ language, an in-depth look at records, linked lists, stacks, queues, binary trees, recursion, file processing, searching and sorting techniques, and graphics. Lab required. Prerequisite: COSC 2320 or 2420. 3 credit hours.

**COSC 2320 Object-Oriented Programming**

An introduction to object-oriented programming techniques using the C++ language. Topics covered will include classes (with private, protected, and public members), inheritance, templates, and

polymorphism. Lab required. Prerequisite: COSC 1320 or proficiency in C or C++ programming, and consent of program coordinator. 3 credit hours.

**COSC 2325 Assembly Language**

Study of the architecture of the computer through the use of assembly language programming. Includes study of registers, instruction sets, addressing techniques, machine execution traces, table searching/sorting, file I/O, program linking, and macros. Lab required. Prerequisite: COSC 1320 or 1420. 3 credit hours.

**COSC 2330 Java for C++ Programmers**

Syntax and Semantics of the Java language with object orientation. Primary emphasis is on development of completed object-oriented applications both with and without a graphical interface. Prerequisite: COSC 2320 or 2420. 3 credit hours.

**COSC 2334 Advanced Assembly Language Programming**

Program design and practice with assembly languages, macro definitions, conditioned assembly, advanced I/O, and floating point operations. Lab required. Prerequisite: COSC 2325. 3 credit hours.

**COSC 2374 Windows Programming with Visual C++**

Programming in a Windows integrated development environment using Visual C++. Lab required. Prerequisite: COSC 2320 or 2420. 3 credit hours.

**COSC 2420 Introduction to Object-Oriented Programming with C++**

An introduction to object-oriented programming using the C++ language. Topics will include discussion of classes, inheritance, templates, and polymorphism. Lab required. Prerequisite: COSC 1320 or 1420. 4 credit hours.

**CPMT 1411 Introduction to Computer Maintenance**

A study of the information for the assembly of a microcomputer system. Emphasis on the evolution of microprocessors and microprocessor bus structures. Lab required. 4 credit hours.

**CPMT 1443 Microcomputer Architecture**

An intermediate level course in computer characteristics and subsystem operations, timing, control circuits, and internal input/output controls. Lab required. Prerequisite: CETT 1325 or consent of instructor. 4 credit hours.

**CPMT 1445 Computer Systems Maintenance**

Examination of the functions of the components within a computer system. Development of skills in the use of test equipment and maintenance aids. Lab required. 4 credit hours.

**CPMT 2337 Microcomputer Interfacing**

An interfacing course exploring the concepts and terminology involved in interfacing the internal architecture of the microcomputer with commonly used external devices. Lab required. Prerequisite: CETT 1445 or consent of instructor. 3 credit hours.

**CRIJ 1301 Introduction to Criminal Justice**

A multidisciplinary overview and analysis of the major agencies, personnel, and decision-making points which comprise the criminal justice system. Includes 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.

**CRIJ 1306 Court Systems and Practices**

Study of procedural regulations that guide the processing of criminal cases through the criminal justice system, with emphasis on the Texas Code of Criminal Procedure and rules of evidence. Includes a discussion of the criminal defendant's due process rights from arrest through confinement as well as issues related to the administration of capital punishment. 3 credit hours.

**CRIJ 1307 Crime in America**

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.

**CRIJ 1310 Fundamentals of Criminal Law**

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.

**CRIJ 1313 Juvenile Justice System**

The juvenile justice system; history, philosophy, and evaluation of the juvenile court; juvenile court practices and procedures; neglect, dependency and delinquency, jurisdiction of the court, the role of the police officer, the correctional officer, and the social welfare worker in the juvenile justice system. 3 credit hours.

**CRIJ 2301 Community Resources in Corrections**

Introduction to the role of the community in corrections; community programs for adults and juveniles; administration of community programs; legal issues; future trends in community treatment. 3 credit hours.

**CRIJ 2313 Correctional Systems and Practices**

Corrections in the criminal justice system; correctional role; institutional operations; alternatives to institutionalization; treatment and rehabilitation; current and future issues. 3 credit hours.

**CRIJ 2314 Criminal Investigation**

Investigative theory; collection and preservation of evidence; sources of information; interview and interrogation; uses of forensic sciences; case and trial preparation. 3 credit hours.

**CRIJ 2323 Legal Aspects of Law Enforcement**

Police authority; responsibilities; constitutional restraints; laws of arrest, search and seizure; police liability. 3 credit hours.

**CRIJ 2328 Police Systems and Practices**

The police profession; organization of law enforcement systems; the police role; police discretion; ethics; police-community interaction; current and future issues. 3 credit hours.

**CRIJ 2389 Academic Co-op Criminal Justice**

An instructional program designed to integrate on-campus study with practical hands-on work experience in criminal justice. In conjunction with class seminars, the individual student will set specific goals and objectives in the study of criminal justice. Contact the Cooperative Work Experience Office. 3 credit hours.

**CSIR 1344 General Communication Circuits I**

The basic theory of operation and troubleshooting of communication circuits used in radio communication electronics systems. Lab required. 3 credit hours.

**CSIR 1444 General Communication Circuits I**

The basic theory of operation and troubleshooting of communication circuits used in radio communication electronics systems. Lab required. 4 credit hours.

**CULA 1205 Sanitation and Safety**

A study of personal cleanliness; sanitary practices in food preparation; causes, investigation, control of illness caused by food contamination (Hazard Analysis Critical Control Points); and workplace safety standards. Professional chef uniform and kitchen tools required. Optional certification in ServSafe and Texas certification. 2 credit hours.

**CULA 1301 Basic Food Preparation**

A study of the fundamental principles of food preparation and cookery to include Brigade System, cooking techniques, material handling, heat transfer, sanitation, safety, nutrition, and professionalism. Professional chef uniform and kitchen tools required. Lab included. 3 credit hours.

**CULA 1341 American Regional Cuisine**

*Formerly CULA 1241*

A study of the development of regional cuisine's in the United States with emphasis on the similarities in production and service systems.

NOTE: Capstones may be found in each program.



Application of skills to develop, organize, and build a portfolio of recipe strategies and production systems. Professional chef uniform and kitchen tools required. Lab included. 3 credit hours.

***CULA 1345 International Cuisine***

*Formerly CULA 1245*

The study of classical cooking skills associated with the preparation and service of international and ethnic cuisine. Topics include similarities between food production systems used in the United States and other regions of the world. Professional chef uniform and kitchen tools required. Lab included. 3 credit hours.

***CULA 1380 Cooperative Education - Culinary Arts/  
Chef Training***

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. Lab included. 3 credit hours.

***CULA 2301 Intermediate Food Preparation***

Continuation of CULA 1301. Topics include the concept of pre-cooked food items, as well as scratch preparation. Covers full range of food preparation techniques. Professional chef uniform and kitchen tools required. Lab included. 3 credit hours.

***CULA 2331 Advanced Food Preparation***

Reinforces the course material of CULA 2301. Topics include the concept of pre-cooked food items and the preparation of canapés, hors d'oeuvres, and breakfast items. Professional chef uniform and kitchen tools required. Lab included. 3 credit hours.

***CULA 2581 Cooperative Education -  
Culinary Arts/Chef Training***

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. Lab included. 5 credit hours.

**DANC 1110 Beginning Tap**

Performance of basic rhythms and techniques fundamental to beginning tap dance. Focus on body placement, terminology, and tap combinations. 1 credit hour.

**DANC 1111 Intermediate Tap**

Further study of tap technique with focus on increased vocabulary and more complex rhythms and combinations. Prerequisite: DANC 1110 or consent of instructor. 1 credit hour.

**DANC 1122 Folk Dance**

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**

Practice in a variety of contemporary social dances such as: swing, salsa, tango, traditional ballroom and country-western. 1 credit hour.

**DANC 1141 Ballet Technique I**

Beginning ballet; development of elementary ballet technique and knowledge of terminology using barre, center work, and beginning movement combinations; emphasis on alignment. 1 credit hour.

**DANC 1142 Ballet Technique II**

Intermediate ballet; further study of ballet technique with focus on more complex movements combinations of petit allegro and grande allegro. Attention of performance qualities. Prerequisite: DANC 1141 or consent of instructor. 1 credit hour.

**DANC 1145 Modern Dance Technique I**

Beginning modern dance; introduction to the art and discipline of modern dance through floor and center work, basic rhythm, and movement combinations. Attention to the analysis of time, space, and dynamics as they apply to dance. 1 credit hour.

**DANC 1146 Modern Dance Technique II**

Intermediate modern dance; further study in the art and discipline of modern dance. Includes technical development of the body for greater range of movement. Attention to focus, spatial clarity, energy dynamics, musicality, and performing qualities. Prerequisite: DANC 1145 or consent of instructor. 1 credit hour.

**DANC 1147 Jazz Dance Technique I**

Beginning jazz dance; practice in basic jazz movements including isolations, elementary jumps, and turns. Includes participation in choreographed combinations and development of performing qualities. 1 credit hour.

**DANC 1148 Jazz Dance Technique II**

Intermediate jazz dance; further development of jazz dance style. Attention to more complex movement combinations and composition development. Prerequisite: DANC 1147 or consent of instructor. 1 credit hour.

**DANC 1151 Dance Performance I**

Study of dance performance through the application of artistic process skills. In-depth experience in rehearsal and concert production process. Gain experience in working with a choreographer and performing in a variety of concert settings. Prerequisite: Audition. 1 credit hour.

**DANC 1152 Dance Performance II**

Continuation of DANC 1151. Prerequisite: Audition. 1 credit hour.

**DANC 1201 Improvisation**

Exploration of movement and visual design leading to choreographic studies. Focus on developing creative potential, personal movement style, and expressiveness. 2 credit hours.

**DANC 2141 Ballet Technique III**

Intermediate/advanced ballet; a continuation of DANC 1142 with greater emphasis on expressive performance of classical ballet. Development of greater physical strength, stamina, and flexibility. Prerequisite: DANC 1142 or consent of instructor. 1 credit hour.

**DANC 2142 Ballet Technique IV**

Advanced ballet; a continuation of DANC 2141, introducing more complex elements of petit allegro, grande allegro, classical and contemporary ballet technique. Prerequisite: DANC 2141 or consent of instructor. 1 credit hour.

**DANC 2145 Modern Dance Technique III**

Intermediate/advanced modern dance; continued development of movement vocabulary with emphasis on processing increasingly complex material. Attention to focus, spatial clarity, energy dynamics, musicality and performing qualities. Prerequisite: DANC 1146 or consent of instructor. 1 credit hour.

**DANC 2146 Modern Dance Technique IV**

Advanced modern dance; a continuation of DANC 2145, introducing more complex elements of classical and contemporary modern dance. Attention to improvisation, partnering and performing qualities. Prerequisite: DANC 2145 or consent of instructor. 1 credit hour.

**DANC 2147 Jazz Dance Technique III**

Intermediate/advanced jazz dance; further practice in jazz movements through advanced level jumps, turns, leaps, kicks, as

well as the combination of these elements. Participation in choreographed routines utilizing complex rhythmic structures and movements in a variety of styles. Prerequisite: DANC 1148 or consent of instructor. 1 credit hour.

**DANC 2148 Jazz Dance Technique IV**

Advanced jazz dance; continuation of DANC 2147 with emphasis on complex combinations and jazz dance choreography. Prerequisite: DANC 2147 or consent of instructor. 1 credit hour.

**DANC 2151 Dance Performance III**

Continuation of DANC 1152. Prerequisite: Audition. 1 credit hour.

**DANC 2152 Dance Performance IV**

Continuation of DANC 2151. Prerequisite: Audition. 1 credit hour.

**DANC 2212 Dance Practicum III**

Practicum in dance with emphasis on choreography and the role of the choreographer in the dance making process. Focus on choreographic designs. Prerequisite: Consent of instructor. 2 credit hours.

**DANC 2213 Dance Practicum IV**

Continuation of DANC 2212. Prerequisite: DANC 2212 and consent of instructor. 2 credit hours.

**DANC 2303 Dance Appreciation**

A course in the understanding of dance as an art form. Emphasis placed on the aesthetics of dance as a performing art. Students will discuss primitive, classical, and contemporary dance and its interrelationship with cultural developments and other art forms. 3 credit hours.

**DANC 2389 Academic Co-op Dance**

Integrates on-campus study with practical hands-on work experience in dance. In conjunction with class seminars, the student will set specific goals and objectives in the study of dance. Contact the Cooperative Work Experience Office. 3 credit hours.

**DFTG 1171 Schematic Capture/Parts Library Database**

Students will learn to create schematic diagrams and parts libraries for printed circuit boards using Veribest software as required by local employers. 1 credit hour.

**DFTG 1172 Printed Circuit Board Layout and Routing**

Students will use Veribest software to layout and route printed circuit boards. Knowledge of software is required by local employers. Prerequisite: DFTG 1171. 1 credit hour.

NOTE: Capstones may be found in each program.

**DFTG 1305 Technical Drafting**

Introduction to the principles of drafting to include terminology and fundamentals, including size and shape descriptions, projection methods, geometric construction, sections, auxiliary views, and reproduction processes. Lab required. Prerequisite: DFTG 1309. 3 credit hours

**DFTG 1309 Basic Computer-Aided Drafting**

An introduction to basic computer-aided drafting. Emphasis is placed on drawing setup; creating and modifying geometry; storing and retrieving predefined shapes; placing, rotating, and scaling objects, adding text and dimensions, using layers, coordinating systems; as well as input and output devices. Lab required. 3 credit hours.

**DFTG 1317 Architectural Drafting - Residential**

Architectural drafting procedures, practices, and symbols, including preparation of detailed working drawings for residential structure with emphasis on light frame construction methods. Lab required. Prerequisites: DFTG 1305 and 1352. 3 credit hours.

**DFTG 1321 Architectural Illustration**

Architectural drawing and sketching, including freehand drawing, perspectives, delineation in various media and development of students' graphical expression, including an introduction to various reproduction methods. Lab required. Prerequisite: DFTG 1309. 3 credit hours.

**DFTG 1333 Mechanical Drafting**

An intermediate course covering detail drawings with proper dimensioning and tolerances, use of sectioning techniques, common fasteners, isometrics and oblique drawings, including bill of materials. Lab required. Prerequisite: DFTG 1309. 3 credit hours.

**DFTG 1348 Topographical Drafting**

A course in map drafting. Emphasis is given to plotting of surveyors field notes, plotting elevations, contour drawings, plan and profiles, and laying out traverses. Lab required. Prerequisite: DFTG 1309. 3 credit hours.

**DFTG 1352 Intermediate Computer-Aided Drafting**

A continuation of practices and techniques used in basic computer-aided drafting emphasizing batched files, scripted files, customized program menus, and extracted attributes. Introduction to three-dimensional drafting. Lab required. Prerequisite: DFTG 1309. 3 credit hours.

**DFTG 1354 Architectural Drafting - Commercial**

Architectural drafting procedures, practices, and symbols including the preparation of detailed working drawings for a commercial

building, with emphasis on commercial construction methods. Lab required. Prerequisites: DFTG 1305 and 1352. 3 credit hours.

**DFTG 1356 Descriptive Geometry**

Examination of the graphical solution to problems involving points, lines, and planes in space. Lab required. Prerequisite: DFTG 1352. 3 credit hours.

**DFTG 1358 Electrical/Electronics Drafting**

A study of the principles of layout of electrical and electronic drawings, stressing modern representation used for block diagrams, schematic diagrams, logic diagrams, wiring/assembly drawings, printed circuit board layouts, motor control diagrams, power distribution diagrams, and electrical one-line diagrams. Lab required. 3 credit hours.

**DFTG 1380 Cooperative Education - Drafting**

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

**DFTG 1391 Special Topics in Drafting**

Current events, skills, knowledge, and/or attitudes and behaviors in the field of drafting. 3 credit hours.

**3D Studio Max**

3D Studio Max software will be used to teach modeling, material application, lighting, and rendering of 3-dimensional spaces. Some animation will be included. Basic commands and concepts will be covered which would apply to various fields.

**3D Studio Max-Animation**

This, the third course offered in 3D Studio Max, will give the student experience in animation of objects, as well as fly-overs and walk-throughs of interiors and exteriors of buildings. Prerequisite: Consent of instructor.

**3D Studio Max - Lights and Materials**

Using 3D Studio Max software, the study of lighting techniques and the application of materials to objects will be emphasized. This powerful software works beautifully with AutoCAD and can enhance presentation drawings and modeling tremendously. Highly recommended for students interested in the architectural field as well as the animation industry.

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### **Intermediate Pro/Engineer**

Pro/Engineer Release 2000 - Advanced sketched features, sweeps and blends, multi-trajectory sweeps, simplified reps by region and rule, tops down design, layout mode, skeletons, space chain parts, data manipulation and reuse, IGES and STEP transfers, Pro/Report and drawings, capstone project.

### **Microstation**

A beginning course in Computer-Aided Drafting using the Microstation software. Basic drawing and editing commands, manipulating files, and the drawing environment are covered in this course to broaden the students' exposure to other drafting software. Highly recommended for the student planning to be involved in the telecommunications field.

### **DFTG 1394 Special Topics in Electrical/ Electronics Drafting**

Current events, skills, knowledge, and/or attitudes and behaviors in the field of electrical/electronics drafting. 3 credit hours.

### **DFTG 2304 Printed Circuit Board Design**

An intermediate course including single-sided and double-sided printed circuit board design, emphasizing the drawings, standards, and processes required to lay out printed circuit board and manufacturing documentation. Lab required. Prerequisite: DFTG 1358. 3 credit hours.

### **DFTG 2310 Structural Drafting**

Discussion of detail drawings of structural shapes for fabrication with emphasis on framed and seated connectors and beam and column detailing. Designed to meet the standards of American Institute of Steel Construction, including units on concrete detailing conforming to American Concrete Institute standards. Lab required. Prerequisite: DFTG 1309. 3 credit hours.

### **DFTG 2312 Technical Illustration**

Topics include pictorial drawing including isometrics, obliques, perspectives, charts, and graphs; shading and transfer lettering; and use of different media. Lab required. Prerequisite: DFTG 1352. 3 credit hours.

### **DFTG 2332 Advanced Computer-Aided Drafting**

Exploration of the use of system customization for drawing production enhancement and the principles of data manipulation. Presentation of advanced applications, such as three-dimensional objects creation and linking graphic entities to external nongraphic data. Lab required. Prerequisite: DFTG 1352. 3 credit hours.

### **DFTG 2336 Computer-Aided Drafting Programming**

Emphasis on the productivity of CAD software through development of computer-aided drafting programs with emphasis

on database design, access techniques, and structure methods with particular application in engineering graphics. Lab required. Prerequisite: DFTG 1352. 3 credit hours.

### **DFTG 2340 Solid Modeling/Design Pro/Engineer**

A computer-aided modeling course. Development of three-dimensional drawings and models from engineering sketches and orthographic drawings and utilization of three-dimensional models in design work. Lab required. Prerequisite: DFTG 1352. 3 credit hours.

### **DFTG 2350 Geometric Dimensioning and Tolerancing**

An introduction to geometric dimensioning and tolerancing, according to ANSI Y14.5 standards. Application of various geometric dimensions and tolerances to engineering drawings. Emphasis on cumulative effects on part function, gauging equipment, and inspection procedures. Lab required. Prerequisite: DFTG 1309. 3 credit hours.

### **DFTG 2352 Mechanical and Electrical Systems**

The properties of building materials (assemblies), specifications, codes, vendor references and uses of mechanical, plumbing, conveying, and electrical systems as related to architecture for residential and commercial construction. Lab required. Prerequisite: DFTG 1309. 3 credit hours.

### **DFTG 2356 Advanced Printed Circuit Board Design**

An advanced course including the layout of surface mounted components and integrated circuit modular design, emphasizing the design and drawing layouts required to produce surface mounted components and integrated circuit modular printed circuit boards. Lab required. Prerequisite: DFTG 2304. 3 credit hours.

### **DFTG 2381 Cooperative Education - Drafting**

Career-related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

### **DHYG 1123 Dental Hygiene Practice**

Examination of the dental hygienist's role in practice settings including dental office management, employment considerations, resume preparation, and job interviewing. Emphasis on the laws governing the practice of dentistry and dental hygiene and the ethical standards established by the dental hygiene profession. Prerequisites: DHYG 1227 and 1261. 1 credit hour.

NOTE: Capstones may be found in each program.



**DHYG 1207 General and Dental Nutrition**

A study of general nutrition and nutritional biochemistry with emphasis on the effects of nutrition and dental health. Analysis of diet and application of counseling strategies to assist the patient in attaining and maintaining optimum oral health are stressed. Prerequisite: DHYG 1331. 2 credit hours.

**DHYG 1215 Community Dentistry**

Study of the principles and concepts of community public health and dental health education with an emphasis on community assessment, educational planning, implementation, and evaluation. Laboratory emphasizes methods and materials used in teaching dental health education in various community settings. Includes rotation schedule into the community (4 hours weekly). Prerequisites: DHYG 1227 and 1261, and ENGL 1301. 2 credit hours.

**DHYG 1227 Preventive Dental Hygiene Care**

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. Prerequisites: BIOL 2420, DHYG 1301 and 1331. 2 credit hours.

**DHYG 1235 Pharmacology for the Dental Hygienist**

A study of the classes of drugs and their uses, actions, interactions, side effects, contraindications, and oral manifestations with emphasis on dental applications. Prerequisite: DHYG 1331. 2 credit hours.

**DHYG 1261 Clinical I – Dental Hygienist**

A method of instruction providing detailed education, training and work-based experience, and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision, evaluation, and placement are the responsibility of the college faculty. Clinical experiences are unpaid external learning experiences. Course may be repeated if topics and learning outcomes vary. Prerequisites: BIOL 2420, DHYG 1301 and 1331. 2 credit hours.

**DHYG 1275 Community Dental Health Applications**

This course provides an opportunity for students to apply the main concepts of community dental health in different populations and to develop an educational program for each specific group. Students will also learn the variances in the application of health education programs among different populations in order to successfully promote health and prevent diseases. Prerequisite: DHYG 1215. 2 credit hours.

**DHYG 1301 Orofacial Anatomy, Histology, and Embryology**

A study of histology and embryology of oral tissues, gross anatomy of the head and neck, tooth morphology, and individual tooth identification. Lab included. Prerequisites: BIOL 2401 and 2402, and CHEM 1405 or 1411. 3 credit hours.

**DHYG 1304 Dental Radiology**

A study of radiation physics, hygiene, and safety theories. Emphasis on the fundamentals of oral radiographic techniques and interpretation of radiographs. Includes exposure of intra-oral radiographs, quality assurance, radiographic interpretation, patient selection criteria, and other ancillary radiographic techniques. Lab included. Prerequisite: DHYG 1301. 3 credit hours.

**DHYG 1311 Periodontology**

Study of normal and diseased periodontium to include the structural, functional, and environmental factors. Emphasis on etiology, pathology, treatment modalities, and therapeutic and preventive periodontics in a contemporary private practice setting. Prerequisites: DHYG 1227 and 1261. 3 credit hours.

**DHYG 1319 Dental Materials**

Study of dental materials including the physical and chemical properties and application of the various materials used in dentistry. Student experiences include manipulation of dental materials in the lab setting. Lab included. Prerequisites: CHEM 1405 or 1411, and DHYG 1431. 3 credit hours.

**DHYG 1331 Preclinical Dental Hygiene**

Foundational knowledge for performing clinical skills on patients. Emphasis on principles, procedures, and professionalism for performing comprehensive oral prophylaxis. Clinical laboratory included (6 hours week). Prerequisites: BIOL 2401 and 2402, and CHEM 1405 or 1411. 3 credit hours.

**DHYG 1339 General and Oral Pathology**

General study of disturbances in human body development, diseases of the body, and disease prevention measures. Emphasis on the oral cavity and associated structures. Prerequisites: DHYG 1227 and 1261. 3 credit hours.

**DHYG 1375 Strategies of Oral Medicine**

This capstone course promotes the understanding of the interrelationship of knowledge gained throughout the dental hygiene curriculum. Presentation of case studies will emphasize the application of knowledge through development of critical thinking and problem solving skills. The student will integrate oral health knowledge with systemic disease and patient (client) well being. Commonly used drugs with dental implications will be discussed. 3 credit hours.

**DHYG 2201 Contemporary Dental Hygiene Care I**

Introduction to dental hygiene care for the medically or dentally compromised patient. Emphasizes supplemental instrumentation techniques. Prerequisites: DHYG 1227 and 1261; Corequisites: DHYG 1123 and 2361. 2 credit hours.

**DHYG 2231 Contemporary Dental Hygienist Care II**

A continuation of dental hygiene care for the medically or dentally compromised patient. Emphasizes advanced instrumentation techniques. Prerequisite: DHYG 1235 and 2361. 2 credit hours.

**DHYG 2361 Clinical II – Dental Hygienist**

A method of instruction providing detailed education, training and work-based experience, and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision, evaluation, and placement are the responsibility of the college faculty. Clinical experiences are unpaid external learning experiences. Course may be repeated if topics and learning outcomes vary. Prerequisites: DHYG 1227 and 1261; Corequisites: DHYG 1123 and 2201. 3 credit hours.

**DHYG 2363 Clinical III – Dental Hygienist**

A method of instruction providing detailed education, training and work-based experience, and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision, evaluation, and placement are the responsibility of the college faculty. Clinical experiences are unpaid external learning experiences. Course may be repeated if topics and learning outcomes vary. Prerequisites: DHYG 1123, 2201, 2231, and 2361. 3 credit hours.

**DITA 1366 Practicum - Dietitian Assistant I**

Practical general training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. This course may be repeated if topics and learning outcomes vary. Corequisite: DITA 1400. 3 credit hours.

**DITA 1400 Dietary Manager I**

Preparation for supervisory roles in food service departments. Emphasis on normal and therapeutic nutrition and food service systems management. Major topics include dietary and meal planning guidelines, sources and functions of nutrients, diet therapy, nutritional assessment and care, food production management and purchasing, and regulatory agencies. Meets requirements established by the Dietary Managers Association. Prerequisite: GED or High School Diploma; Corequisite: DITA 1366. 4 credit hours.

*NOTE: DITA 1400 and 1401 may be taken in either order.*

**DITA 1401 Dietary Manager II**

Continuation of DITA 1400. Emphasis on food service sanitation and safety, and administrative and personnel management. Major topics include regulatory agencies, computer applications, production management, budgeting, and cost control, personnel management, quality assurance, leadership skills, human relations, and communications. Meets requirements established by the Dietary Managers Association. Prerequisite: GED or High School Diploma; Corequisite: DITA 2467. 4 credit hours.

*NOTE: DITA 1400 and 1401 may be taken in either order.*

**DITA 2467 Practicum - Dietitian Assistant II**

Practical general training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. This course may be repeated if topics and learning outcomes vary. Corequisite: DITA 1401. 4 credit hours.

**DRAM 1120 Theatre Practicum - Performance**

*Formerly DRAM 1171*

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 1121 or repeated for maximum of 6 credit hours; flexible enrollment. Prerequisite: Consent of instructor. 1 credit hour.

**DRAM 1121 Theatre Practicum - Technical**

*Formerly DRAM 1172*

Practicum in theatre with emphasis on theatre techniques and procedures, including major technical responsibilities in the production of a college play. May be combined with DRAM 1120 or repeated for a maximum total of 6 credit hours; flexible enrollment. Prerequisite: Consent of instructor. 1 credit hour.

**DRAM 1161 Musical Theatre Workshop I**

Study and performance of works in the musical theatre repertoire. May be taken as DRAM 1161 or MUSI 1159, but not both. Prerequisite: Consent of instructor. 1 credit hour.

**DRAM 1162 Musical Theatre Workshop II**

A continuation of Musical Theatre Workshop I. Developing advanced techniques in presenting works from the musical theatre repertoire. May be taken as DRAM 1162 or MUSI 2159, but not both. Prerequisite: DRAM 1161 or MUSI 1159. 1 credit hour.

**DRAM 1310 Introduction to the Theatre**

Various aspects of theatre are surveyed. Emphasis on types of plays, directing, acting, theatre history, and technical production. Lab required. 3 credit hours.

NOTE: Capstones may be found in each program.

**DRAM 1330 Stagecraft I**

Study and application of the visual aesthetics of design that may include the physical theatre, scenery construction and painting, properties, lighting, costumes, makeup, and backstage organizations. Lab required. 3 credit hours.

**DRAM 1341 Theatrical Makeup**

Study and application of visual aesthetics in theatrical makeup, including fundamentals of stage makeup, character makeup, corrective techniques, beards, mustaches, and three-dimensional makeup. Lab required. 3 credit hours.

**DRAM 1342 Introduction to Costuming**

Introduction to constructing costumes for theatrical productions. Students will gain an appreciation of the art of costuming and a sense of fashion history, and will understand how the costume fits into the total concept and production of the play. Lab required. 3 credit hours.

**DRAM 1351 Acting I**

Introduction to the art of acting including body control, voice, pantomime, interpretation, characterization, and stage movement. Lab required. 3 credit hours.

**DRAM 1352 Acting II**

Continued study of acting, with emphasis on complex characterization, ensemble acting, stylized acting, auditioning, and acting in period plays. Lab required. Prerequisite: DRAM 1351. 3 credit hours.

**DRAM 2331 Stagecraft II**

Advanced study and application of visual aesthetics in scene design and stage painting. Lab required. Prerequisite: DRAM 1330. 3 credit hours.

**DRAM 2336 Voice and Diction**

Intensive work in the improvement of voice through exercises to develop resonance, range, flexibility, intensity, and control of voice. 3 credit hours.

**DRAM 2351 Acting III**

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. Lab required. Prerequisite: DRAM 1352. 3 credit hours.

**DRAM 2361 History of Theatre I**

A historical investigation of the theatre and dramatic literature from ancient Greece through the Renaissance. Lab required. 3 credit hours.

**DRAM 2362 History of Theatre II**

A historical investigation of the theatre and dramatic literature from the English restoration to the present. Lab required. 3 credit hours.

**DRAM 2366 History of Film Making I**

Investigates the history of motion pictures and its effect on our society as well as its contributions to our culture. Covers the period of 1890-1949. Emphasis on the cinema as an art form. Lab required. 3 credit hours.

**DRAM 2367 History of Film Making II**

Investigates the history of motion pictures and its effect on our society as well as its contributions to our culture. Covers the period of 1950-present. Emphasis on the cinema as an art form. Lab required. 3 credit hours.

**DRAM 2371 Special Topics in Drama**

In-depth study of selected topics in drama. May be repeated for credit as topics change. Lab required. 3 credit hours.

**Acting for Film and Television**

Intensive examination of skills and techniques necessary for successful performances in film and television. Prerequisite: DRAM 1352.

**Advanced Stage Combat**

Continuation of DRAM 2351 with emphasis on complex stage combat techniques and choreography. Prerequisite: Consent of instructor.

**Contemporary American Dramatic Literature**

The purpose of this course is to increase understanding and critical awareness of American dramatic literature since the late 1940s. Through a comparative study of American dramatic literature published within the past 50 years, students will learn techniques for analyzing play structure in a manner vital for the director, designer, playwright, and performer. Through lectures, readings, written critiques, and oral presentations students will assess the development of dramatic literature since the late 1940s, as well as discern these scripts' correlation to social developments and contribution to structural innovations in playwrighting.

**Costume Design II**

Continuation of DRAM 1342. Emphasis is on the art of costume design. Prerequisite: DRAM 1342 or consent of instructor.

**Improvisational Drama**

General introduction to the techniques, practice, and performance of improvisational drama. Prerequisite: DRAM 1351 or 1352.

**Intermediate Makeup**

Continuation of DRAM 1341 with emphasis on three-dimensional makeup. Prerequisite: DRAM 1341.

**Introduction to Directing**

Examines the art of directing for the stage, including the composition, picturization, style, form, and structure of staging a play. Students will direct scenes and one-act plays.

**Introduction to Musical Theatre**

Study of the forms and structures of the American musical theatre from its earliest forms through the present day.

**Movement for the Actor**

An introductory study of the concepts of preparing and performing a role on stage with specific emphasis on the actor's physicality and stage movement. This course will examine techniques of stage movement, to include mask and mime work, yoga, dance, the Alexander technique, Laban movement technique, and many others. Prerequisite: DRAM 1351 or 1352.

**New York Theatre Field Studies**

Introduces students first-hand to the performance, practice, and theory of the New York professional theatre.

*NOTE: Students must also enroll in the New York Field Studies program. For information, contact Professor Brad Baker at 972.881.5679.*

**Shakespeare on Stage**

Bringing the text to life-intellectually, physically, vocally, emotionally, and intuitively through exercises and improvisation.

**Shakespeare World and Words**

Helping the actor find "a way in" to Shakespeare's text: scansion, verse coaching, monologue, and scene study.

**Sound Design for Film/TV**

Examines the special sound design and recoding needs of video and film, both on the set and in post-production.

**Stage Lighting**

Mechanics and art of lighting for the stage, including the nature of light and optics, color, instrumentation, dimmers, and elementary lighting design. Practical application with CCCCD Theatre productions. Prerequisite: DRAM 1330.

**Stage Management**

Examines the art of stage managing a play production, including rehearsal preparations, performance responsibilities, and production process documentation.

**Theatre Outreach**

An in-depth study of the concepts of dramatic playwriting, production, and performance, combined with an intensive study of current issues in sociology. Students will research, write, and produce plays that highlight and depict the social concerns of contemporary youth. Prerequisite: Consent of instructor.

**DRAM 2389 Academic Co-op Drama**

Integrates on campus study with practical hands-on work experience in drama. In conjunction with class seminars, the student will set specific goals and objectives in the study of drama. Contact the Cooperative Work Experience Office. 3 credit hours.

**ECOM 1370 Introduction to E-Commerce**

Explores the highly dynamic and rapidly expanding area of electronic commerce. Examines the initial aspects of an E-Commerce business including building and managing the site, the network infrastructure, marketing and advertising, payment systems, legal and privacy issues, international issues, and financial services. 3 credit hours.

**ECOM 1371 Data for E-Business**

Introduction to database principles and how data relates to E-Business through such topics as data warehousing, use of consumer data for marketing, financial data available on the Internet, and data and information reporting. 3 credit hours.

**ECOM 1372 E-Business Strategies**

This course examines the impact of emerging technologies on how we conduct business today. Students will examine business strategies and processes using information technology to create a global business organization, and will examine the financial and managerial aspects of an E-Commerce business. 3 credit hours.

**ECOM 1373 E-Marketing**

Topics include marketing in computer-mediated environments, online consumer behavior, customer and business relationships, personalization on the web, interactivity, customer contracts, and international issues. 3 credit hours.

**ECOM 2371 E-Business Authoring and Programming**

Course includes an introduction to HTML, XML, CSS, DHTML, JavaScript, and Perl. Students will create web pages using HTML and web authoring software and create interactive web pages using Cascading Style sheets, dynamic HTML, and JavaScript. Prerequisites: ECOM 1370. 3 credit hours.

**ECOM 2372 E-Commerce Software and Support Tools**

Students are exposed to the latest E-Commerce software providing tools for both business-to-business and business-to-consumer commerce. Students will learn how the E-Business software interacts with back office systems, including database, accounting, and ERP systems. Students will architect, create, and manage an E-Commerce site. Capstone: complete as the final course in the E-Commerce Certificate. Suggested Corequisite: ITNW 1392. 3 credit hours.

**ECOM 1301 Introduction to Economics**

Introduction to the principles of economics, including economic behavior of consumers, businesses, and government agencies. Emphasis on economic decision making as used in daily life. 3 credit hours.

NOTE: Capstones may be found in each program.



**ECON 2301 Principles of Macroeconomics**

Decision-making in the public sector; economic analysis of inflation, unemployment, and economic growth; national income measurements; money and banking; monetary and fiscal policy; competing economic theories; international economics. Prerequisites: MATH 0310 and ENGL 0305 or equivalent, or consent of instructor. 3 credit hours.

**ECON 2302 Principles of Microeconomics**

Decision-making in the private sector; markets and prices; demand and supply; consumer economics; production, costs and industrial organization; international economics; current topics. Prerequisites: MATH 0310 and ENGL 0305 or equivalent, or consent of instructor. 3 credit hours.

**ECON 2389 Academic Co-op Economics**

Integrates on-campus study with practical hands-on work experience in economics. In conjunction with class seminars, the student will set specific goals and objectives in the study of economics. Contact the Cooperative Work Experience Office. 3 credit hours.

**EDUC 1301 Introduction to Education**

An introduction to different teacher programs, teaching fields, and employment conditions. Includes information concerning the Pre-Professional Skills Test (PPST). Field work may be required. 3 credit hours.

**EDUC 2301 Introduction to Special Education**

An introduction to special education including characteristics, problems, and needs of the exceptional learner. Includes a study of public and private services available to the handicapped citizen. Field work may be required. Prerequisite: EDUC 1301. 3 credit hours.

***EECT 1191 Special Topics in Electrical, Electronic, and Communications Engineering Technology/Technician***

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. Lab required. 1 credit hour.

***EECT 1291 Special Topics in Electrical, Electronic, and Communications Engineering Technology/Technician***

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. Lab required. 2 credit hours.

***EECT 1300 Technical Customer Service***

General principles of customer service within a technical environment. Topics include internal/external customer relationships, time management, best practices, and verbal and non-verbal communications skills. Lab required. 3 credit hours.

***EECT 1302 Introduction to Videoconferencing***

An introduction to the videoconferencing protocol. Topics include imaging, display, and control equipment. Lab required. 3 credit hours.

***EECT 1303 Introduction to Telecommunications***

An overview of the telecommunications industry. Topics include the history of the telecommunications industry, terminology, rules and regulations, and industry standards and protocols. Lab required. Prerequisite: ITSC 1321 or consent of instructor. 3 credit hours.

***EECT 1340 Telecommunications Transmission Media***

Fundamentals of telecommunications media, including installation, maintenance, and troubleshooting. Topics address media characteristics and connectorization. Lab required. 3 credit hours.

***EECT 1344 Telecommunications Broadband Systems***

A survey of telecommunications broadband transmissions systems including protocols, testing, applications, and safety practices. This course may be repeated for a total of 12 credit hours if the areas of emphasis vary. 3 credit hours.

***EECT 1346 Telecommunications Traffic Engineering***

A study of telecommunications traffic management including blocking avoidance schemes, data collection, and analysis and reporting techniques. Lab required. 3 credit hours.

***EECT 1380 Cooperative Education - Electrical, Electronic, and Communications Engineering Technology/Technician***

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

**EECT 1381 Cooperative Education - Electrical, Electronic, and Communications Engineering Technology/Technician**

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

**EECT 1391 Special Topics in Electrical, Electronic, and Communications Engineering Technology/Technician**

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. Lab required. 3 credit hours.

**EECT 1444 Telecommunications Broadband Systems**

A survey of telecommunications broadband transmissions systems including protocols, testing, applications and safety practices. Lab required. 4 credit hours.

**EECT 1448 Digital Signal Processing (DSP)**

A study of the architecture and applications of digital signal processors (DSP) including mathematical signal processing techniques. Lab required. 4 credit hours.

**EECT 1491 Special Topics in Electrical, Electronic, and Communications Engineering Technology**

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. Lab required. 4 credit hours.

**EECT 2330 Telecommunications Switching**

The operation of telecommunications switching equipment and related software. Topics include installation, testing, maintenance, and troubleshooting. Lab required. 3 credit hours.

**EECT 2332 Telecommunications Signaling**

The study of signaling schemes in telecommunications. Topics include circuits and systems necessary to implement signaling protocols, conversions, and formats. Lab required. 3 credit hours.

**EECT 2337 Wireless Telephony Systems**

Principles of wireless/cellular telephony systems to include call processing, hand-off, site analysis, antenna radiation patterns,

commonly used test/maintenance equipment, and access protocol. This course may be repeated if the areas of emphasis vary. 3 credit hours.

**EECT 2340 Telecommunications Central Office Equipment**

An examination of the theory, operation, and maintenance of central office telecommunications equipment. Lab required. 3 credit hours.

**EECT 2342 Telecommunications Private Branch Exchange (PBX)**

An examination of the theory, operation, and maintenance of PBX telecommunications equipment. Lab required. 3 credit hours.

**EECT 2433 Telephone Systems**

A study of installation and maintenance systems including telephone set, public switched networks, local exchanges, networks, two- and four-wire systems, tip and ringing requirements, and digital transmission techniques. Lab required. 4 credit hours.

**EECT 2435 Telecommunications (Capstone)**

A study of modern telecommunications systems incorporating microwave, satellite, optical, and wire/cable-based communications systems. Instruction in installation, testing, and maintenance of communications systems components. Lab required. Prerequisite: EECT 2439 or consent of instructor. 4 credit hours.

**EECT 2437 Wireless Telephony Systems**

Principles of wireless/cellular telephony systems to include call processing, hand-off, site analysis, antenna radiation patterns, commonly used test/maintenance equipment, and access protocol. Lab required. 4 credit hours.

**EECT 2439 Communications Circuits**

A study of communications systems with emphasis on amplitude modulation, frequency modulation, phase modulation, and digital pulse modulation. Discussion of several types of modulators, demodulators, receivers, transmitters, and transceivers. Lab required. Prerequisite: CETT 1409. 4 credit hours.

**EECT 2444 Telecommunications Tandem Switching Equipment**

An examination of the theory, operation, and maintenance of tandem telecommunications switching equipment. Lab required. 4 credit hours.

**ELMT 1301 Basic Programmable Logic Controllers**

An introduction to programmable logic controllers as used in industrial environments including basic concepts, programming, applications, troubleshooting of ladder logic, and interfacing of equipment. Lab required. 3 credit hours.

NOTE: Capstones may be found in each program.

**ELMT 1405 Basic Fluid Power***Formerly ENTC 1445*

Basic fluid power course including pneumatics, vacuum and hydraulics; symbols, theory, components, and basic electrical controls. Lab required. 4 credit hours.

**ELMT 2435 Certified Electronics Technician Training**

Review of electronics concepts and principles in preparation for sitting for a certification examination administered by an outside organization or agency. 4 credit hours.

**ELMT 2437 Electronic Troubleshooting, Service, and Repair**

In-depth coverage of electronic systems, maintenance, troubleshooting, and repair. Topics include symptom identification, proper repair procedure, repair checkout, and preventative maintenance. Emphasis on safety and proper use of test equipment. May be offered as a capstone course. Lab required. 4 credit hours.

**EMSP 1160 Clinical - Emergency Medical Technology/Technician**

A method of instruction providing detailed education, training and work-based experience, and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision, evaluation, and placement are the responsibility of the college faculty. Clinical experiences are unpaid external learning experiences. Course may be repeated if topics and learning outcomes vary. 1 credit hour.

**EMSP 1161 Clinical - Advanced I**

A method of instruction providing detailed education, training and work-based experience, and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision, evaluation, and placement are the responsibility of the college faculty. Clinical experiences are unpaid external learning experiences. Course may be repeated if topics and learning outcomes vary. 1 credit hour.

**EMSP 1162 Clinical - Advanced II**

A method of instruction providing detailed education, training and work-based experience, and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision, evaluation, and placement are the responsibility of the college faculty. Clinical experiences are unpaid external learning experiences. Course may be repeated if topics and learning outcomes vary. 1 credit hour.

**EMSP 1205 Emergency Care Attendant**

Basic first responder course in basic emergency medical care. Emphasis on requirements of national and state accrediting agencies. 2 credit hours.

**EMSP 1338 Introduction to Advanced Practice**

An exploration of the foundations necessary for mastery of the advanced topics of clinical practice out of the hospital. 3 credit hours.

**EMSP 1355 Trauma Management***Formerly EMSP 1455*

A detailed study of the knowledge and skills necessary to reach competence in the assessment and management of patients with traumatic injuries. 3 credit hours.

**EMSP 1356 Patient Assessment and Airway Management**

A detailed study of the knowledge and skills required to reach competence in performing patient assessment and airway management. 3 credit hours.

**EMSP 1501 Emergency Medical Technician - Basic**

Introduction to the level of Emergency Medical Technician (EMT) - Basic. Includes all the skills necessary to provide emergency medical care at a basic life support level with an ambulance service or other specialized services. 5 credit hours.

**EMSP 2135 Advanced Cardiac Life Support**

Skill development for professional personnel practicing in critical care units, emergency departments, and paramedic ambulances. Establishes a system of protocols for management of the patient experiencing cardiac difficulties. 1 credit hour.

**EMSP 2237 Emergency Procedures**

Instruction in a laboratory environment concentrating on development of practical medical skills and critical thinking abilities. Students will master a variety of skills appropriate to their training level by a combination of practice; use mannequins, actors or other students, and stage scenarios. Required verifications of specific skills may be included. 2 credit hours.

**EMSP 2243 Assessment Based Management**

The capstone course of the EMSP program. Designed to provide for teaching and evaluating comprehensive, assessment-based patient care management. 2 credit hours.

**EMSP 2260 Clinical – Advanced III**

A method of instruction providing detailed education, training and work-based experience, and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision, evaluation, and placement are the responsibility of the college faculty. Clinical experiences are unpaid external learning experiences. Course may be repeated if topics and learning outcomes vary. 1 credit hour.

**EMSP 2330 Special Populations**

Formerly EMSP 2430

A detailed study of the knowledge and skills necessary to reach competence in the assessment and management of ill or injured patients in nontraditional populations. 3 credit hours.

**EMSP 2338 EMS Operations**

A detailed study of the knowledge and skills necessary to reach competence to safely manage the scene of an emergency. 3 credit hours.

**EMSP 2388 – Internship – Emergency Medical  
Technology/Technician**

Formerly EMSP 2586

An experience external to the college for an advanced student in a specialized field involving a written agreement between the educational institution and a business or industry. Mentored and supervised by a workplace employee, the student achieves objectives that are developed and documented by the college and that are directly related to specific occupational outcomes. This may be a paid or unpaid experience. This course may be repeated if topics and learning outcomes vary. 3 credit hours.

**EMSP 2434 Medical Emergencies**

A detailed study of the knowledge and skills necessary to reach competence in the assessment and management of patients with medical emergencies. 4 credit hours.

**EMSP 2444 Cardiology**

Formerly EMSP 2544

A detailed study of the knowledge and skills necessary to reach competence in the assessment and management of patients with cardiac emergencies. 4 credit hours.

**ENGL 0300 Developmental Writing I**

A skills improvement course designed to help students 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. Assessment required. Lab included. *May not be used to satisfy the requirements of an associate degree.* 3 credit hours.

**ENGL 0305 Developmental Writing II**

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. Emphasis on critical reading skills, analytical writing, and vocabulary building. Punctuation and sentence construction studied as needed. Lab included. *May not be used to satisfy the requirements of an associate degree.* Prerequisite: ENGL 0300 or assessment. 3 credit hours.

**ENGL 0310 Developmental Grammar I**

A skills improvement course designed to help students 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. Teaches the student to recognize and correct common errors in sentence structure. May be taken concurrently with any English course. Lab included. *May not be used to satisfy the requirements of an associate degree.* 3 credit hours.

**ENGL 0315 Reading, Writing, and Reasoning**

A skills improvement course designed to help students reach competencies necessary for ENGL 1301. Focuses on reading and writing medium length expository essays, with special emphasis on writing about issues arising from class readings. Students will learn to write effective, logical essays, to develop reading comprehension strategies, and to analyze, synthesize, and make value judgments using critical thinking. Lab included. *May not be used to satisfy the requirements of an associate degree.* Prerequisite: ENGL 0300 or 0305. 3 credit hours.

**ENGL 1301 Composition/Rhetoric I**

Expository writing, development of paragraphs and the whole composition, study of model essays, extensive theme writing, individual conferences, and departmental final exam. TASP assessment required prior to enrollment. Lab required. 3 credit hours.

**ENGL 1302 Composition/Rhetoric II**

Continued development of writing skills and development of critical thinking skills in argumentation, analysis and interpretation of various types of literature, extensive reading and writing, MLA documentation, study of research methods and materials, and preparation of research paper. Lab required. Prerequisite: ENGL 1301. 3 credit hours.

**ENGL 2307 Creative Writing**

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.

NOTE: Capstones may be found in each program.



**ENGL 2311 Technical Writing**

Introduction to technical writing and communication, including preparation of reports, proposals, technical papers, abstracts, and summaries of specific technical interest to the student. MLA documentation included. Prerequisite: ENGL 1301. 3 credit hours.  
*NOTE: This course may be substituted for ENGL 1302 in some degree plans.*

**ENGL 2322 British Literature I**

Survey of major works in British literature from its origins to the beginning of the Romantic Movement. Analysis of these works in their historical, cultural, and social contexts. Prerequisite: ENGL 1302 or 2311. 3 credit hours.

**ENGL 2323 British Literature II**

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 or 2311. 3 credit hours.

**ENGL 2327 American Literature I**

Study of major writers from the Colonial period to the beginning of the Civil War. Analysis and evaluation of these works in their historical, cultural, and social contexts. Prerequisite: ENGL 1302 or 2311. 3 credit hours.

**ENGL 2328 American Literature II**

Study of major writers from the Realistic Movement to the present. Analysis and evaluation of these works in their historical, cultural, and social contexts. Prerequisite: ENGL 1302 or 2311. 3 credit hours.

**ENGL 2332 World Literature I**

Study of literature from the classical Greek period through the 16th century. Analysis and evaluation of literary works in the historical, cultural, and social contexts. Prerequisite: ENGL 1302 or 2311. 3 credit hours.

**ENGL 2333 World Literature II**

Study of literature from the 17th century through the 20th century. Analysis and evaluation of literary works in the historical, cultural, and social contexts. Prerequisite: ENGL 1302 or 2311. 3 credit hours.

**ENGL 2342 Introduction to Literature I -  
Short Story and Novel**

Study of short stories, novels, and non-fiction. Analysis and evaluation of major writers, their techniques, and their contributions to our literary heritage. Prerequisite: ENGL 1302 or 2311. 3 credit hours.

**ENGL 2343 Introduction to Literature II -  
Poetry and Drama**

Study of poetry and drama and of mythology as it relates to these genres. Analysis of our classical heritage, origins of drama, development of contemporary drama and film, and elements and types of poetry. Prerequisite: ENGL 1302 or 2311. 3 credit hours.

**ENGL 2389 Academic Co-op English**

Integrates on-campus study with practical hands-on work experience in English. In conjunction with class seminars, the student will set specific goals and objectives in the study of English. Contact the Cooperative Work Experience Office. 3 credit hours.

**ENGR 1304 Engineering Graphics**

Use of computer-aided drafting, applied geometry, engineering lettering, orthographic projections, dimensioning, pictorial drawing and sketching, sectional views, and working drawings. Lab required. Prerequisite: DFTG 1309 or consent of instructor. 3 credit hours.

**ENGR 2301 Engineering Mechanics I**

Vectors, tensors, and foundations of mechanics; motion of particles including momenta, energy, and work concepts; statics including concept of free-body diagrams, friction forces, and virtual work. Prerequisite: MATH 2413. 3 credit hours.

**ENGR 2302 Engineering Mechanics II**

Dynamics of particles including harmonic motion, motion of a particle in a central force field, momentum, energy methods, and relative motion in rigid bodies. Prerequisite: ENGR 2301. 3 credit hours.

**ENGR 2332 Materials and Processes**

Simple structural elements with emphasis on forces, deformation, and material properties. Includes concepts of stress, strain, and elastic properties. Behavior phenomena such as fracture, fatigue, and creep are introduced. Prerequisite: ENGR 2301. 3 credit hours.

**ENGR 2405 Electrical Circuit Analysis**

Basic principles of R, L, and C circuits; steady-state DC and AC signals; simple transient response. Includes Kirchoff's laws, Ohm's law, and 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.

**ENTC 1380 Cooperative Education - Engineering Technology/Technician, General**

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

**ENTC 2380 Cooperative Education - Engineering Technology/Technician, General**

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. Prerequisite: ENTC 1380. 3 credit hours.

**ENVR 1401 Environmental Science I**

Interdisciplinary study of both natural (biology, chemistry, geology) and social (economics, politics, ethics) sciences as they apply to the environment. Focus on current global concerns, including global warming, overpopulation, deforestation, pollution, biodiversity, and resource use. Practical laboratory experience emphasizes the application of fundamental principles of biology and chemistry as well as critical thinking and analysis. Lab required. 4 credit hours.

**ENVR 1402 Environmental Science II**

Continued interdisciplinary study of both natural (biology, chemistry, geology) and social (economics, politics, ethics) sciences as they apply to the environment. Focus on energy issues, global warming, ozone loss, land use, conservation and management deforestation, biodiversity, the history of environmental law and regulation, and local environmental problems. Lab required. Prerequisite: ENVR 1401. 4 credit hours.

**ENVR 1470 West Texas Natural History**

For non-science majors or an elective for science majors. Survey of the ecosystems of central and west Texas, including the effects of human impact. Taught by geologists and biologists; requires camping field trips. 4 credit hours.

**EPCT 1305 Environmental Regulations Overview**

An introduction to the history of the environmental movement, including basic requirements for compliance with the environmental regulations. Emphasis on the history of the environmental

movement, environmental law, compliance and regulatory mechanisms, and pertinent acts and amendments. 3 credit hours.

**EPCT 1311 Introduction to Environmental Science**

An overview of environmental science and current global concerns, and a brief history of environmental ethics, resource use, and conservation. Discussion of fundamental principles of resource economics and environmental health. 3 credit hours.

**EPCT 1317 Environmental Geology**

A study of the relationships between earth science and the environment. Emphasizes crustal geological influences on air, water, and soil focusing on the effects on human habitation. Includes issues in flood plain management, groundwater conservation, and geomaterial interactions. Emphasis on surface/groundwater contamination, remediation, and physico-chemical interactions between contaminants and fracture surfaces. 3 credit hours.

**EPCT 1327 Water Treatment and Operations**

Study of conventional water treatment plants including administration and management. Emphasis on the operation of motors, pumps, and disinfection in small water plants. Lab required. 3 credit hours.

**EPCT 1341 Principles of Industrial Hygiene**

Basic concepts in threshold limits, dose response, and general recognition of occupational hazards, including sampling statistics, calibration, and equipment use. A study of the control of occupational hazards and sample collection and evaluation methods. 3 credit hours.

**EPCT 1343 Treatment, Remediation, and Disposal Techniques**

A study of the skills required in treatment, remediation, and disposal processes of solid waste, hazardous materials, and hazardous waste. Emphasizes the technologies applicable in the field. Lab required. 3 credit hours.

**EPCT 1344 Environmental Sampling and Analysis**

Sampling protocol, procedures, quality control, preservation technology, and field analysis. Emphasis on analyses commonly performed by the field technician. Focus on proper selection of basic monitoring equipment, instrument calibration, field and lab analysis, sampling techniques and documentation, and sample preservation procedures. Lab required. 3 credit hours.

**EPCT 1351 Quality Assurance and Quality Control**

Quality assurance/quality control procedures used to confirm viability and confidence of sample results or procedures. Emphasis on documentation, blank and check sample (spike) preparation, and control tables. Lab required. 3 credit hours.

NOTE: Capstones may be found in each program.

***EPCT 1401 Hazardous Waste Operations and Emergency Response (HAZWOPER) Training and Related Topics***

Minimum certification requirements of a hazardous waste site worker as found in 29 CFR 1910.120 and 40 CFR 264 and 265.16. Recognition of hazards associated with handling of hazardous waste. Focus on health, safety, sampling techniques, and selection and use of proper personal protection equipment. Students will receive 40-hour HAZWOPER certificate. Lab required. 4 credit hours.

***EPCT 1428 Basic Wastewater Operations***

Introduction to the information and operational skills needed for wastewater treatment plants. Lab required. 4 credit hours.

***EPCT 2212 Water Rules and Regulations***

Discussion of local, state, and national rules and regulations relevant to water. 2 credit hours.

***EPCT 2304 Water Distribution***

Study of basic operational and maintenance concepts of water distribution systems and the analysis and solution of problems in water distribution systems. 3 credit hours.

***EPCT 2313 Wastewater Collections***

Basic concepts in operation and maintenance of collection systems. 3 credit hours.

***EPCT 2333 Environmental Toxicology***

A review of the research determining the systematic health effects of exposures to chemicals. Discussion of risk factors, routes of entry, control measures, and acute and chronic effects. Lab required. 3 credit hours.

***EPCT 2335 Advanced Environmental Instrumental Analysis***

Regulations and standards in the analysis of samples using specific analytical instruments and their procedures. Emphasis on instrument calibrator sample preparation, evaluation, and reporting of analytical results. Lab required. 3 credit hours.

***EPCT 2337 Site Assessment***

Emphasis on techniques required to perform site assessment and/or conduct a site survey, including documentation required for site assessment. Lab required. 3 credit hours.

***EPCT 2341 Wastewater Treatment***

Advanced study of the theory of operations and maintenance of wastewater treatment. 3 credit hours.

***EPCT 2342 Advanced Water and Wastewater Chemistry***

Advanced chemical and microbiological analysis for nonstandard water and wastewater samples. Lab required. 3 credit hours.

***EPCT 2380 Cooperative Education – Environmental and Pollution Control Technology/Technician***

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

***EPCT 2381 Cooperative Education - Environmental and Pollution Control Technology/Technician (Capstone)***

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

***EPCT 2403 Surface and Groundwater Collection***

In-depth study of operations and maintenance procedures for surface and groundwater collection. Lab required. 4 credit hours.

***ESLC 0300 ESL Conversation I***

Develops non-native speakers' listening and speaking skills in order to facilitate natural conversation. *May not be used to satisfy the requirement for an associate degree.* Prerequisite: Assessment. 3 credit hours.

***ESLC 0305 ESL Conversation II***

Continues to develop non-native speakers' listening and speaking skills in order to facilitate natural conversation. *May not be used to satisfy the requirement for an associate degree.* Prerequisite: ESLC 0300 or assessment. 3 credit hours.

***ESLC 0310 ESL Conversation III***

Further develops non-native speakers' listening and speaking skills in order to facilitate natural conversation. *May not be used to satisfy the requirement for an associate degree.* Prerequisite: ESLC 0305 or assessment. 3 credit hours.

**ESLC 0320 ESL Conversation: Pronunciation**

Pronunciation of individual phonemes, word and sentence stress, and intonation. Addresses pronunciation problems of specific language groups. *May not be used to satisfy the requirement for an associate degree.* Prerequisite: ELSC 0305 or assessment. 3 credit hours.

**ESLG 0300 ESL Grammar I**

Targeted grammar structures: word order, parts of speech, nouns and pronouns, negative formation, question formation, “to be”, and articles. *May not be used to satisfy the requirement for an associate degree.* Prerequisite: Assessment. 3 credit hours.

**ESLG 0305 ESL Grammar II**

Continued instruction in targeted grammar structures: verb tenses, verbs in context, passive voice, and modals. *May not be used to satisfy the requirement for an associate degree.* Prerequisite: ESLG 0300 or assessment. 3 credit hours.

**ESLG 0310 ESL Grammar III**

Continued instruction in targeted grammar structures: gerunds and infinitives, prepositions, and conditionals. *May not be used to satisfy the requirement for an associate degree.* Prerequisite: ESLG 0305 or assessment. 3 credit hours.

**ESLG 0315 ESL Grammar IV**

Continued instruction in targeted grammar structures: noun clauses, adjective clauses, and adverb clauses. *May not be used to satisfy the requirement for an associate degree.* Prerequisite: ESLG 0310 or assessment. 3 credit hours.

**ESLL 0315 ESL Life Skills**

Develops non-native speaker's knowledge and skills for cross-cultural communication in American society. Serves as a preparation course for Service Learning. *May not be used to satisfy the requirement for an associate degree.* Prerequisite: ESLC 0310, ESLR 0310, or assessment. 3 credit hours.

**ESLR 0300 ESL Reading I**

Beginning reading comprehension of English for non-native speakers. *May not be used to satisfy the requirement for an associate degree.* Prerequisite: Assessment. 3 credit hours.

**ESLR 0305 ESL Reading II**

Intermediate reading comprehension of English for non-native speakers. *May not be used to satisfy the requirement for an associate degree.* Prerequisite: ESLR 0300 or assessment. 3 credit hours.

**ESLR 0310 ESL Reading III**

Advanced reading comprehension of English for non-native speakers, which focuses on issues of American culture through the study of movies. *May not be used to satisfy the requirement for an associate degree.* Prerequisite: ESLR 0305 or assessment. 3 credit hours.

**ESLR 1300 General Education Reading for ESL Students**

Textbooks from core curriculum courses such as SOCI 1301, HUMA 1301, or HIST 1301 are used to teach comprehension and vocabulary. A support course which may be taken prior to enrollment in the core course or concurrently. *May not be used to satisfy the requirement for an associate degree.* Prerequisite: ESLR 0310 or assessment. 3 credit hours.

**ESLS 0315 ESL Study Skills**

Develops non-native speakers' study skills in the areas of listening and note taking for academic lecture classes, test preparation, test taking, and learning styles. *May not be used to satisfy the requirement for an associate degree.* Prerequisites: ESLC 0310 and ESLW 0305, or assessment. 3 credit hours.

**ESLV 0305 ESL Vocabulary - Idioms**

Teaches idiomatic English to second language learners. *May not be used to satisfy the requirement for an associate degree.* Prerequisite: ESLC 0300 or assessment. 3 credit hours.

**ESLW 0300 ESL Writing I**

Beginning writing skills for non-native speakers. Focuses on sentence level to one-paragraph essays. *May not be used to satisfy the requirement for an associate degree.* Prerequisite: Assessment. 3 credit hours.

**ESLW 0305 ESL Writing II**

Intermediate writing skills for non-native speakers. Focuses on multi-paragraph essays and various modes of writing. *May not be used to satisfy the requirement for an associate degree.* Prerequisite: ESLW 0300 or assessment. 3 credit hours.

**ESLW 0310 ESL Writing III**

Advanced writing skills for non-native speakers. Focuses on multi-paragraph essays. *May not be used to satisfy the requirement for an associate degree.* Prerequisite: ESLW 0305 or assessment. 3 credit hours.

**ESLW 0315 ESL Writing IV**

Advanced 5-paragraph essay writing for non-native speakers. Designed for students planning to take ENGL 1301. *May not be used to satisfy the requirement for an associate degree.* Prerequisite: ESLW 0310 or assessment. 3 credit hours.

NOTE: Capstones may be found in each program.



**FIRS 1201 Firefighter Certification I**

An introduction to firefighter safety and development. Topics include Texas Commission on Fire Protection Rules and Regulations, firefighter safety, fire science, personal protective equipment, self contained breathing apparatus, and fire reports and records. Lab required. 2 credit hours.

**FIRS 1207 Firefighter Certification II**

The study of basic principles and skill development in handling fire service hose and ladders. Topics include the distribution system of water supply, basic building construction, and emergency service communication, procedures, and equipment. Lab required. Prerequisite: FIRS 1201. 2 credit hours.

**FIRS 1219 Firefighter Certification IV**

A study of equipment, tactics, and procedures used in forcible entry, ventilation, salvage, and overhaul. Preparation for certification as a basic firefighter. Lab required. Prerequisite: FIRS 1313. 2 credit hours.

**FIRS 1223 Firefighter Certification V**

The study of ropes and knots, rescue, procedures and techniques, and hazardous materials. Preparation for certification as a basic firefighter. Lab required. Prerequisite: FIRS 1219. 2 credit hours.

**FIRS 1233 Firefighter Certification VII (Capstone)**

An in-depth study and practice of simulated emergency operations and hands-on live fire training exercises, incident command procedures, and combined operations using proper extinguishing methods. Emphasis on safety. Prerequisite: FIRS 1329. 2 credit hours.

**FIRS 1313 Firefighter Certification III**

General principles of fire apparatus, pump operations, fire streams, and public operations as they relate to fundamental development of basic firefighter skills. Lab required. Prerequisite: College entrance level math skills. Prerequisite: FIRS 1207. 3 credit hours.

**FIRS 1329 Firefighter Certification VI**

The study of fire inspection techniques and practices, public transportation, fire cause determination. Topics include fire protection systems, wildland fire, and pre-incident planning. Preparation for certification as a basic firefighter. Lab required. Prerequisite: College entrance level math skills. Prerequisite: FIRS 1223. 3 credit hours.

**FIRT 1192 Special Topics in Fire Services Administration**

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. 1 credit hour.

**FIRT 1301 Fundamentals of Fire Protection**

Study of the philosophy, history, and fundamentals of public and private fire protection. Topics include statistics of fire and property loss, agencies involved in public and private protection, legislative development, departmental organization, training, and staffing. 3 credit hours.

**FIRT 1303 Fire and Arson Investigation I**

In-depth study of basic fire and arson investigation practices. Emphasis on fire behavior principles related to fire cause and origin determination. Lab recommended. Prerequisite: FIRT 1301 or consent of Fire Science Program director. 3 credit hours.

**FIRT 1305 Public Education Programs**

Preparation of firefighters and fire officers to develop public fire safety awareness. Emphasis on implementation of fire and public safety programs in an effort to reduce the loss of life. Lab recommended. 3 credit hours.

**FIRT 1307 Fire Prevention Codes and Inspections**

Study of local building and fire prevention codes. Emphasis on fire prevention inspections, practices, and procedures. Lab recommended. 3 credit hours.

**FIRT 1309 Fire Administration I**

Introduction to the organization and management of a fire department and the relationship of government agencies to the fire service. Emphasis on fire service leadership from the perspective of the company officer. Prerequisite: FIRT 1301 or consent of the Fire Science Program director. 3 credit hours.

**FIRT 1315 Hazardous Materials I**

Study of the chemical characteristics and behavior of various materials. Topics include storage, transportation, handling hazardous emergency situations, and the most effective methods of hazard mitigation. Lab recommended. Prerequisite: FIRT 1301 or consent of Fire Science Program director. 3 credit hours.

**FIRT 1329 Building Codes and Construction**

Examination of building codes and requirements, construction types, and building materials. Topics include walls, floorings, foundations, and various roof types and the associated dangers of each. 3 credit hours.

**FIRT 1331 Firefighting Strategies and Tactics I**

Analysis of the nature of fire problems and selection of initial strategies and tactics including an in-depth study of efficient and effective use of manpower and equipment to mitigate the emergency. Prerequisite: FIRT 1301 or consent of Fire Science Program director. 3 credit hours.

**FIRT 1338 Fire Protection Systems**

Study of fire detection, alarm, and extinguishing systems. Lab recommended. 3 credit hours.

**FIRT 1345 Hazardous Materials II**

In-depth study of mitigation practices and techniques to effectively control hazardous material spills and leaks. Lab recommended. Prerequisite: FIRT 1315. 3 credit hours.

**FIRT 1347 Industrial Fire Protection**

Study of industrial emergency response teams and specific concerns related to business and industrial facilities. 3 credit hours.

**FIRT 1349 Fire Administration II**

In-depth study of fire service management as pertaining to budgetary requirements, administration, organization of divisions within the fire service, and relationships between the fire service and outside agencies. Capstone course for students pursuing an AAS in Fire Science with the Fire Officer specialization. 3 credit hours.

**FIRT 1355 Methods of Teaching**

Preparation of public safety personnel to effectively teach technical skills, techniques, and information. 3 credit hours.

**FIRT 2370 Company Fire Officer (Capstone)**

Mastery of fire ground operations and supervisory practices. Includes performance evaluation of Incident Commander, Safety Officer, Public Information Officer, and Shift Supervisor duties. Prerequisites: FIRT 1303, 1307, 1309, 1331, 1349, and 1355. 3 credit hours.

**FLMC 1331 Computers in Video Production I**

Introduction to the applications of computers to video production. Topics include the design of PC computer graphic workstations and development of a rationale for selecting software, hardware, and peripherals. Lab required. Prerequisites: ARTC 1307, 1353, and 2305. 3 credit hours.

**FLMC 1391 Special Topics in Film/Cinema Studies**

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. Prerequisite: FLMC 1331. 3 credit hours.

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**Character Animation and Rendering**

Advanced work in 3D animation. Students are exposed to state-of-the-art software and hardware with emphasis on 3D modeling and character animation pertaining to the entertainment industry. Prerequisite: Consent of instructor. 3 credit hours.

**History of Animation**

Study of the evolution of 2D and 3D animation. Topics include hand-drawn animation cells, rotoscoping, flip-books, stop-action photography, and digital animation techniques. Theory of animation will cover timing, walk cycles, and character animation.

**FLMC 1392 Special Topics in Film - Video Making/ Cinematography and Production**

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. Prerequisite: FLMC 2331. 3 credit hours.

**Advanced 3D Animation**

Continuation of 3D modeling, rendering, and character animation topics covered in prerequisite courses. This course emphasizes the execution of a complete, high-end 3D animation piece and enables students to develop problem-solving skills in 3D computer graphics. Prerequisites: ARTC 2341 and FLMC 1391.

**Animation Portfolio**

Continuation of FLMC 1392–Advanced 3D Animation. This course is designed to finalize students' portfolio work in 3D animation and focuses on resolving issues in modeling, character setup, animation, shading networks, lighting, and rendering. Prerequisite: FLMC 1392–Advanced 3D Animation.

**FLMC 2331 Computers in Video Production II**

Further study of the applications of computers to video production. Topics include vector and raster graphics; rendering techniques; the design and production of three-dimensional animated visuals; and the selection of hardware, software, and peripherals for the configuration of a desktop video studio. Lab required. Prerequisite: FLMC 1331. 3 credit hours.

**FREN 1100 French Conversation I**

Intensive practice in spoken French. Prerequisite: FREN 1412 or consent of program coordinator; Corequisite: FREN 2311. 1 credit hour.

**FREN 1110 French Conversation II**

Continuation of FREN 1100. Prerequisite: FREN 1100; Corequisite: FREN 2312. 1 credit hour.

NOTE: Capstones may be found in each program.

**FREN 1411 Beginning French I**

Introduction to the basic skills of speaking, reading, writing, and listening with attention to selected aspects of French culture; designed for students with little or no previous language training. Instruction is enhanced by the use of tapes, slides, and video cassettes. 4 credit hours.

**FREN 1412 Beginning French II**

Continuation of FREN 1411. Prerequisite: French 1411. 4 credit hours.

**FREN 2303 French Literature I**

Survey of French literature in its historical context from the 16th century through the 18th century. Continued practice in basic language skills. Reading of selected writers such as Ronsard, Molière, and Voltaire. Prerequisite: FREN 2312. 3 credit hours.

**FREN 2304 French Literature II**

Survey of French literature in the 19th and 20th centuries with reading from representative writers such as Hugo, Baudelaire, and Camus. Prerequisite: FREN 2312. 3 credit hours.

**FREN 2311 Intermediate French I**

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 program coordinator; Corequisite: FREN 1100. 3 credit hours.

**FREN 2312 Intermediate French II**

Continuation of FREN 2311. Prerequisite: FREN 2311; Corequisite: FREN 1110. 3 credit hours.

**G****GEOG 1301 Physical Geography**

Exploration of the physical environment; emphasis on climates, land forms, vegetation, and spatial relationships of selected geographical regions of the world. 3 credit hours.

**GEOG 1302 Cultural Geography**

Examination of the cultural and economic environment; emphasis on origins, diffusion, and distribution of races, religions, and languages. 3 credit hours.

**GEOG 1303 World Regional Geography**

Study of major developed and developing regions with emphasis on awareness of prevailing world conditions and situations. Includes emerging conditions and trends and awareness of the diversity of

ideas and practices to be found in those regions. May be used to meet three semester hours of social science elective requirement for education certification in public school teaching. 3 credit hours.

**GEOL 1305 Natural Disasters**

Understanding the causes and effects of natural disasters such as earthquakes, volcanic eruptions, landslides, floods, land subsidence, coastal hazards, etc., and what we can do to mitigate, predict, control, and prevent these catastrophic events. 3 credit hours.

**GEOL 1347 Introduction to Meteorology**

An analysis of the Earth's atmosphere, global climate, and associated environmental factors. Includes weather tracking on a computer weather network station. 3 credit hours.

**GEOL 1401 Earth Science**

For the non-science major. Concepts of earth processes and their relation to man, including basic principles from physical and historical geology, oceanography, and meteorology. Lab required. 4 credit hours.

**GEOL 1402 Dinosaurs!**

Evolution, ecology, and extinction of the dinosaurs from a physical and historical geology perspective. Comparative anatomy is emphasized. Dinosaur controversies will be examined in light of recent evidence. Field trips and class projects will focus on dinosaur families and habitats. Lab required. 4 credit hours.

**GEOL 1403 Physical Geology**

A basic geology course covering a variety of topics: rocks and minerals, weathering and soils, rivers, sea coasts and ocean floors, deserts, volcanism, plate tectonics, mountain building, earthquakes, and topographic maps. Lab required. 4 credit hours.

**GEOL 1404 Historical Geology**

Earth and its inhabitants as revealed in rocks and fossils. Includes plant and animal kingdoms, elementary principles of stratigraphy, and development of earth from its origin as a planet to the present. Lab required. Prerequisite: GEOL 1403 or consent of instructor. 4 credit hours.

**GEOL 1405 Earth Habitat**

Study of geologic constraints upon human activities and the environmental consequences of such activities. Includes mass movements, flooding, earthquakes, and volcanic hazards. Emphasis on the environmental aspects of the development of water, energy, and mineral resources. Lab required. Prerequisite: GEOL 1403 or consent of instructor. 4 credit hours.

**GEOL 1445 Oceanography**

History of marine science including navigation and formation of the ocean and atmosphere. Processes including sedimentation, plate tectonics, weather, climate, and ocean chemistry. Biota including evolution, ecology, and effects of civilization. Field trip to the Gulf Coast. Lab required. 4 credit hours.

**GEOL 1447 Introduction to Meteorology**

An analysis of the Earth's atmosphere, global climate, and associated environmental factors. Includes lab exercises in weather tracking on Weather-Net computer system. Lab required. 4 credit hours.

**GEOL 2389 Academic Co-op Geology**

Integrates on-campus study with practical hands-on work experience in geology. In conjunction with class seminars, the student will set specific goals and objectives in the study of geology. Contact the Cooperative Work Experience Office. 3 credit hours.

**GEOL 2409 Rocks, Minerals, and Gem Stones**

Chemistry, classification, crystallography, identification, and occurrence of minerals. Includes formation, classification, and identification of igneous, sedimentary, and metamorphic rocks. Intended primarily for geology majors. Lab required. Prerequisite: GEOL 1403 or consent of instructor. 4 credit hours.

**GERM 1100 Conversational German I**

Intensive practice in spoken German. Prerequisite: GERM 1412 or consent of program coordinator; Corequisite: GERM 2311. 1 credit hour.

**GERM 1110 Conversational German II**

Continuation of GERM 1100. Prerequisite: GERM 1100; Corequisite: GERM 2312. 1 credit hour.

**GERM 1411 Beginning German I**

Introduction to the basic skills of speaking, reading, writing, and listening; designed for students with little or no previous language training. Includes attention to selected aspects of German civilization. Instruction enhanced by the use of tapes, slides, and video cassettes. 4 credit hours.

**GERM 1412 Beginning German II**

Continuation of GERM 1411 with an emphasis on the reading of elementary texts. Prerequisite: GERM 1411 or equivalent. 4 credit hours.

**GERM 2303 German Literature I**

Survey of German literary texts selected to increase reading and translating fluency. Students will read and discuss texts in German and translate difficult passages and idioms into English. Prerequisite: GERM 1412 and consent of instructor. 3 credit hours.

**GERM 2304 German Literature II**

Continuation of GERM 2303; selected German literary texts enhance reading and translation ability while familiarizing the student with some aspects of German literature and culture in the 18th, 19th, and 20th centuries. Students will read and discuss the texts in German and translate difficult passages and idioms into English. Prerequisite: GERM 2303 and consent of instructor. 3 credit hours.

**GERM 2311 Intermediate German I**

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 program coordinator; Corequisite: GERM 1100. 3 credit hours.

**GERM 2312 Intermediate German II**

Continuation of German 2311. Prerequisite: GERM 2311; Corequisite: GERM 1110. 3 credit hours.

**GOVT 2301 American Government I**

Introduction to politics and government in the United States. Includes the origin and development of constitutional democracy in the United States, emphasizing the constitutions of the State of Texas and the United States, federalism and intergovernmental relations, local government, and the political process. 3 credit hours.  
*NOTE: A government course transferred from out-of-state cannot be equivalent to this course; see an academic adviser before enrolling.*

**GOVT 2302 American Government II**

Examines the institutional structures of government at both national and state levels, including the legislative process, executive and bureaucratic structures, and judicial process. Explores civil rights and civil liberties, domestic policy, foreign relations, and national defense. 3 credit hours.

**GOVT 2304 Introduction to Political Science**

Introduction to the history and methods of political science. Examines basic concepts of politics and political behavior, provides overview of the history of the discipline, explores scope and methods of political inquiry, and explores 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's degree. 3 credit hours.

**GOVT 2389 Academic Co-op Government**

Integrates on-campus study with practical hands-on work experience in government. In conjunction with class seminars, the student will set specific goals and objectives in the study of government. Contact the Cooperative Work Experience Office. 3 credit hours.

NOTE: Capstones may be found in each program.



**GRPH 1325 Digital Imaging I - PhotoPaint**

An introduction to digital imaging on the computer using image editing and/or image creation software. Topics include scanning, resolution, file formats, output devices, color systems, and image-acquisitions. Prerequisite: ITSC 1321 or consent of instructor. 3 credit hours.

**GRPH 1354 Electronic Publishing II - Ventura**

Emphasis on design principles for the creation of advertising and publishing materials such as letterheads, business cards, ads, fliers, brochures, and manuals. Mastery of design principles regarding typography, effective use of color, special graphic effects, informational graphics and output considerations. Emphasis on techniques for planning and documenting projects and on efficient project design techniques. Prerequisites: ITSC 1321 and POFI 2301. 3 credit hours.

**GRPH 1357 Digital Imaging II**

An in-depth investigation of digital imaging on the computer using image editing and/or image creation software. Manipulation, creation, and editing of digital images. Topics include image capture, high-end workstations, image bit-depth, and interaction with service bureaus and printing industries. Lab required. 3 credit hours.

**GRPH 1359 Object Oriented Computer Graphics**

Mastery of the tools and transformation options of an industry standard draw program to create complex illustrations and follow them through to the color output stage. Mastery in the use of basic elements of good layout and design principles and use of the capabilities specific to vector (object-oriented) drawing software to manipulate both text and graphics with emphasis on the use of bezier curves. Acquisition of images via scanning and the creative use of clip art are included. 3 credit hours.

**GRPH 1380 Cooperative Education – Desktop Publishing Equipment Operator**

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

**GRPH 2305 Directed Studies in Electronic Publishing: Graphics Techniques**

Students contract with instructor to increase specific skills in an orderly and defined manner. Emphasis on independent learning skills and development of lifelong learning skills. Prerequisite: GRPH 1359 or consent of instructor. 3 credit hours.

**HALT 1211 Shrubs, Vines, and Groundcovers**

In-depth coverage of the shrubs, vines, and groundcovers used in the horticulture industry. Topics include identification, characteristics, adaptation, cultural requirements, pest and disease problems, and use in the landscape. Lab required. 2 credit hours.

**HALT 1213 Economic Entomology**

An overview of insects and related organisms with an emphasis on destructive, predacious, parasitic, and beneficial species. Topics include insect taxonomy, anatomy, morphology, and physiology and the application of proper biological and chemical control measures. Lab required. 2 credit hours.

**HALT 1217 Trees**

A study of the trees used in the horticulture industry. Topics include identification, characteristics, adaptation, cultural requirements, pest and disease problems, and trees in the landscape. Lab required. 2 credit hours.

**HALT 1227 Horticultural Equipment Management**

Instruction in identification and application of various types of powered equipment used in the horticulture industry. Presentation of functions, operations, troubleshooting techniques, and repair of equipment. Lab required. 2 credit hours.

**HALT 1233 Landscape Irrigation**

In-depth coverage of irrigation systems including equipment, design, performance, and maintenance. Topics include residential and commercial applications, troubleshooting, repair, and technological advances in irrigation systems. Lab required. 2 credit hours.

**HALT 1291 Special Topics in Horticulture Services, Operations, and Management, General**

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. 2 credit hours.

**HALT 1303 Herbaceous Plants**

An in-depth study of herbaceous plant material. Topics include practices and procedures used in the identification, growth, propagation, maintenance, and utilization of herbaceous plants in the horticulture industry. Lab required. 3 credit hours.

**HALT 1305 Horticultural Soils**

A study of the physical properties of soil, including structure and texture. Topics include the origin and development of soils, the composition of a soil horizon, and the interrelationship between soil fertility and plants. Lab required. 3 credit hours.

**HALT 1307 Plant Diseases**

An overview of the factors causing plant diseases. Topics include physiological disorders, fungi, bacteria, viruses, mollicutes, nematodes, parasitic plants, non-pathogenic factors, and control methods. Lab required. 3 credit hours.

**HALT 1309 Interior Plants**

Instruction in the identification and classification of the plants used in home and commercial interior landscapes. Topics include design characteristics for interiorscapes and environmental requirements of the plants. Lab required. 3 credit hours.

**HALT 1319 Landscape Construction**

Exploration of landscape construction materials and the methods used for installation. Topics on soil preparation, including wood, concrete, and masonry construction, and landscape lighting, including pools, spas, and general construction details. Lab required. 3 credit hours.

**HALT 1322 Landscape Design**

A study of the principles and elements of landscape design. Topics include client interview, site analysis, plan view, scale, plant selection, basic drawing and drafting skills, and plan preparation. Lab required. 3 credit hours.

**HALT 1324 Turfgrass Science and Management**

In-depth coverage of various species of warm and cool season grasses including their uses, application, adaptability, environmental tolerances, anatomy, and physiological responses. Lab required. 3 credit hours.

**HALT 1331 Woody Plant Materials**

An in-depth study of the woody plant materials used in the horticulture industry. Topics include identification, characteristics, adaptation, cultural requirements, pest and disease problems, and use in the landscape. Lab required. 3 credit hours.

**HALT 1345 Golf/Sports Field/Park Management**

Instruction in the management of golf courses, sports fields, and municipal parks departments. Topics include record keeping, budgeting, labor management, maintenance programs, financial reports, personnel management, and business functions. Lab required. 3 credit hours.

**HALT 1346 Specialized Turfgrass Management**

An overview of the construction and management of specialized turf features such as putting greens, tee boxes, bunkers, and sand based ball fields. Topics include the equipment and cultural practices utilized for intensively managed turf areas. Lab required. Prerequisite/Corequisite: HALT 1324. 3 credit hours.

**HALT 1351 Landscape Business Operations**

Instruction in the structure of the landscape business including cost estimation; organization; equipment needs; interpretation of financial reports; and material, labor, and equipment management. Emphasis on the types of landscape operations, marketing, legal forms, construction law, and safety. Lab required. 3 credit hours.

**HALT 1353 Landscape Computer Design**

A course in computer-aided landscape design. Emphasis on the application of design concepts and techniques using software. Prerequisite/Corequisite: HALT 1322. 3 credit hours.

**HALT 1401 Principles of Horticulture**

An overview of the horticulture industry, plant science, terminology, classification, propagation, environmental responses, and careers and opportunities in the field of horticulture. Lab required. 4 credit hours.

**HALT 2301 Arboriculture**

Fundamentals of woody plant physiology and growth including techniques and procedures utilized in making sound tree care decisions related to growth and pest and disease control. Topics include design principles of planning and maintenance for city streets, parks, and commercial and residential properties. Lab required. 3 credit hours.

**HALT 2302 Greenhouse Crop Production**

In-depth coverage of the production of crops within the controlled environment of greenhouse. Topics include growing techniques, environmental control, crop rotation, scheduling, preparation for sale, and marketing. Lab required. Prerequisite/Corequisite: HALT 1401. 3 credit hours.

**HALT 2304 Garden Center Management**

An introduction to modern principles and practices used in the management and operation of a garden center. Topics include procedures used in the garden center industry. Emphasis on managerial and communications skills. Lab required. 3 credit hours.

**HALT 2308 Greenhouse Management**

Fundamentals of greenhouse construction and operation. Topics include architectural styles, construction materials, environmental systems and controls, growing media, fertilizers, post harvest handling, marketing, and business management. Lab required. 3 credit hours.

**HALT 2312 Turfgrass Maintenance**

Instruction in common turfgrass cultural practices. Topics include calculation and application of materials and the operation and maintenance of equipment. Lab required. Prerequisite/Corequisite: HALT 1324. 3 credit hours.

NOTE: Capstones may be found in each program.

***HALT 2314 Plant Propagation***

A study of the sexual and asexual propagation of plants used in horticulture. Topics include propagation by seeds, cuttings, grafting, budding, layering, division, separation, and tissue culture, and environmental factors of propagation. Lab required. Prerequisite/Corequisite: HALT 1401. 3 credit hours.

***HALT 2315 Landscape Management***

A study of the procedures and practices used in the horticulture industry for proper landscape maintenance. Topics include landscape installation, lawn maintenance, shrub and tree care, and management practices. Lab required. 3 credit hours.

***HALT 2320 Nursery Production and Management***

An overview of the procedures for establishing and operating a commercial nursery. Topics include site selection, structures, equipment, stock selection, production practices, harvesting, marketing, and management practices. Lab required. 3 credit hours.

***HALT 2364 Practicum - Horticulture Services, Operations, and Management***

Practical general training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be for pay or no pay. This course may be repeated if topics and learning outcomes vary. 3 credit hours.

***HAMG 1211 Sanitation and Safety***

The fundamentals of sanitation practices, laws, methods, and techniques of food handling for protections, safety, and accident prevention. Optional certification in ServSafe and Texas certification. 2 credit hours

***HAMG 1313 Front Office Procedures***

A study of the flow of activities and functions in today's lodging operations. Topics include a comparison of manual, machine-assisted, and computer based methods for each front file function. 3 credit hours.

***HAMG 1321 Introduction to Hospitality Industry***

Introduction to the elements of the hospitality industry. 3 credit hours.

***HAMG 1324 Hospitality Human Resources Management***

A study of the principles and procedures of managing people in the hospitality workplace. 3 credit hours.

***HAMG 1340 Hospitality Legal Issues***

A course in legal and regulatory requirements that impact the hospitality industry. Topics include Occupational Safety and Health Administration (OSHA), labor regulations, tax laws, tip reporting, franchise regulations, and product liability laws. 3 credit hours.

***HAMG 1380 Cooperative Education - Hospitality Administration and Management***

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

***HAMG 2305 Hospitality Management and Leadership***

An overview of management and leadership in the hospitality industry with an emphasis on management philosophy, policy formation, communications, motivation and team building. 3 credit hours.

***HAMG 2307 Hospitality Marketing and Sales***

Identification of the core principles of marketing and their impact on the hospitality industry. 3 credit hours.

***HAMG 2332 Hospitality Financial Management***

Methods and applications of financial management within the hospitality industry. Primary emphasis on sales accountability, internal controls, and report analysis. 3 credit hours.

***HAMG 2337 Hospitality Facilities Management***

Identification of building systems, facilities management, security, and safety. 3 credit hours.

***HAMG 2581 Cooperative Education - Hospitality Administration and Management***

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 5 credit hours.

**HIST 1301 U.S. History I**

History of the United States with focus on development of American characteristics and institutions, including the forging of a new society from European, African, and American cultures. Emphasis on colonial and early national periods through the Civil War and Reconstruction. Students must take 6 credit hours of HIST 1301, 1302, or 2301 to fulfill the Texas legislative requirement for history. 3 credit hours.

**HIST 1302 U.S. History II**

History of the United States from 1877 to the present. Focus on the development of American society in the 20th century, response to the urban-industrial environment, the United States as a world power, and post-World War II society. Students must take 6 credit hours of HIST 1301, 1302, or 2301 to fulfill the Texas legislative requirement for history. 3 credit hours.

**HIST 2301 History of Texas**

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. Students must take 6 credit hours of HIST 1301, 1302, or 2301 to fulfill the Texas legislative requirement for history. 3 credit hours.

**HIST 2311 Western Civilization I**

European civilization from ancient times through the Reformation, including Greece and Rome, the Church, feudalism, the commercial revolution, and early colonial movement. 3 credit hours.

**HIST 2312 Western Civilization II**

Western Europe from post-Reformation to the present, including the Age of Revolution, beginning of industrialism, growth of nationalism and democracy in the 19th century, causes and consequences of the two world wars, and modern Europe. 3 credit hours.

**HIST 2370 Studies in U.S. History**

Selected topics in the history of the United States. May be repeated for credit as topics change. Prerequisite: 6 credit hours of history. 3 credit hours.

**History of the Vietnam War**

Comprehensive study of the United States' involvement in the Vietnam War, 1954-1975.

**The Sixties**

Development of American characteristics and institutions during the 1960s. Prerequisite: HIST 1302.

**HIST 2371 Advanced Studies in U.S. History**

Selected topics in the history of the United States. May be repeated for credit as topics change. Prerequisite: 6 credit hours of history. 3 credit hours.

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**America and the Cold War**

Study of how the conflict between capitalism and communism impacted both national events and U.S. foreign policy during the 20th century.

**Civil War and Reconstruction**

American characteristics and institutions from 1850-1877; emphasis on social, political, economic, and military conflicts. Prerequisite: HIST 1301 or consent of instructor.

**History of the South**

Major topics, figures, and historical debates of the American South from colonial times to the present.

**History of Religion in the United States**

History of religion in the United States from the Spanish conquest to the present. Prerequisite: HIST 1301 or 1302, or consent of instructor.

**The U. S. and the First World War**

Study of major topics in World War I, with an emphasis on strategy and the impact the war had on American society. In varying amounts of detail the course includes the long-range and short-term causes of the war, the course of the war prior to and after U. S. entry, allied and Central Powers' military and diplomatic strategy before and after U.S. entry, the war's effect on the American economy, society and politics, and the war's long-range consequences for the world.

**The U.S. and the Second World War**

Study of major topics in World War II, with emphasis on U.S. strategy and the impact the war had on American society. In varying amounts of detail, the course includes the fascist challenge, the causes of the war, Pearl Harbor, Axis and Allied military strategies, minority and gender issues during the war, D-Day, the Holocaust, the atomic bomb, arts and entertainment on the Homefront, and the war's implications for global order in the postwar world.

**HIST 2389 Academic Co-op History**

Integrates on-campus study with practical hands-on work experience in history. In conjunction with class seminars, the individual student will set specific goals and objectives in the study of history. Contact the Cooperative Work Experience Office. 3 credit hours.

**HPRS 1201 Introduction to Health Professions**

An overview of the roles of the various members of the health care system, educational requirements, and issues affecting the delivery of health care. Topics include safety and infection control, CPR and first aid procedures, phlebotomy related medical terminology, laboratory related anatomy and physiology, Patient's Bill of Rights, quality control, and risk management. Corequisite: MLAB 1223 and 1263. 2 credit hours.

NOTE: Capstones may be found in each program.



**HPRS 2300 Pharmacology for Health Professions**

A study of drug classifications, actions, therapeutic uses, adverse effects, methods of administration, client education, and calculation of dosages. 3 credit hours.

**HPRS 2301 Pathophysiology**

Study of the pathology and general health management of diseases and injuries across the life span. Topics include etiology, symptoms, and the physical and psychological reactions to diseases and injuries. 3 credit hours.

**HRPO 1305 Management and Labor Relations**

The development and structure of the labor movement including labor legislation, collective bargaining, societal impact, labor/management relationships, and international aspects. 3 credit hours.

**HRPO 1391 Special Topics in Human Resources Management**

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. Prerequisites and topics covered will be annotated in each semester's *Schedule of Classes*. 3 credit hours.

**HRPO 1392 Special Topics in Labor/Personnel Relations and Studies**

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. Prerequisites and topics covered will be annotated in each semester's *Schedule of Classes*. 3 credit hours.

**HRPO 2301 Human Resources Management**

Behavioral and legal approaches to the management of human resources in organizations. 3 credit hours.

**HRPO 2307 Organizational Behavior**

The analysis and application of organizational theory, group dynamics, motivation theory, leadership concepts, and the integration of interdisciplinary concepts from the behavioral sciences. 3 credit hours.

**HUMA 1301 Introduction to the Humanities**

Helps students achieve a clearer understanding of the nature of humankind and the need to create. Explores the relationship between values, attitudes, ideas, and cultural achievements. 3 credit hours.

**HUMA 1302 Cultural Diversity**

Evaluation of the cultural contributions of selected non-western or minority cultures. 3 credit hours.

**HUMA 2389 Academic Co-op Humanities**

Integrates on-campus study with practical hands-on work experience in humanities. In conjunction with class seminars, the individual student will set specific goals and objectives in the study of humanities. Contact the Cooperative Work Experience Office. 3 credit hours.

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**IBUS 1354 International Marketing Management**

Analysis of international marketing strategies using market trends, costs, forecasting, pricing, sourcing, and distribution factors. Development of an international export/import marketing plan. 3 credit hours.

**IFWA 1209 Nutrition and Menu Planning**

Formerly FDST 1209

Application of principles of nutrition in planning menus for various types of commercial, industrial, and institutional food service entities. Lab included. 2 credit hours.

**IMED 1211 Storyboard**

Introduction to the techniques of storyboarding including organizing a project's content and arranging it in a visual format. 2 credit hours.

**IMED 1301 Introduction to Multimedia**

A survey of the theories, elements, and hardware/software components of multimedia. Topics include digital image editing, digital sound and video editing, animation, web page development, and interactive presentations. Emphasis on conceptualizing and producing effective multimedia presentations. The focus of the class is interface design, including: color theory, typography, graphics, layout, and interactive design. Prerequisite: COSC 1300 or consent of instructor. 3 credit hours.

**IMED 1305 Multimedia Authoring I**

Instruction in multimedia development with an icon-based development tool. Topics include interactivity, branching, navigation, and interface/information design using industry standard authoring software. Prerequisite: COSC 1300 or consent of instructor. 3 credit hours.

**IMED 1316 Web Page Design I**

Instruction in Internet web page design and related graphic design issues including mark-up languages, web sites, Internet access software, and interactive topics. Prerequisite: COSC 1300 or consent of instructor. 3 credit hours.

NOTE: Italicized course numbers and titles denote Workforce Education Program courses.

**IMED 1343 Digital Sound**

Instruction in digitizing sound and incorporating it into multimedia titles for various delivery systems. Emphasis on compression issues, sampling, synchronizing, and resource management. 3 credit hours.

**IMED 1345 Interactive Multimedia I**

Exploration of the use of graphics and sound to create time-based interactive multimedia animations using industry standard authoring software. Software used is Macromedia Flash. Prerequisites: COSC 1300 or instructor consent. 3 credit hours.

**IMED 1351 Digital Video**

Skill development in producing and editing video and sound for multimedia productions. Emphasis on the capture, editing, and outputting of video using a desktop digital video workstation. 3 credit hours.

**IMED 1391 Special Topics in Educational/Instructional Media Technology/Technician**

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. Prerequisite: Consent of the instructor. 3 credit hours.

**Active Server Pages**

This course enables users to design and maintain interactive and dynamic Web applications with the server-based scripting language, Active Server Pages.

**Macromedia Fireworks**

This course teaches the software tool, Macromedia Fireworks, which is the current industry-standard for producing animated graphics for the World Wide Web. Students will create individual and group projects that can be published over the web. This is a special topics course which allows the students to have the opportunity to learn the current products and, therefore, be marketable on the fast-changing job market.

**IMED 2301 Instructional Design**

An in-depth study of the instructional design process based on learning theories including evaluation of models and design examples. 3 credit hours.

**IMED 2305 Multimedia Authoring II**

In-depth coverage of programming/scripting using an icon-based authoring system with emphasis on advanced development of interactive multimedia products. 3 credit hours.

**IMED 2313 Project Analysis and Design**

Introduction to the multimedia planning process including costing, preparation, production legal issues, and guidelines for pre-production preparation and creation of a comprehensive design

document including target audience analysis, purpose and goals, objectives, content outline, flow chart, and storyboard. Emphasis on content design and production management. 3 credit hours.

**IMED 2315 Web Page Design II**

A study of hypertext mark-up language (HTML) and interesting layout techniques for creating and engaging well designed web pages. Emphasis on identifying the target audience and producing a web site according to physical and technical limitations, cultural appearance, and legal issues. Prerequisites: IMED 1301 and 1316. 3 credit hours.

**IMED 2341 Advanced Digital Video**

Instruction in the use of advanced digital video techniques for post-production. Emphasis on generation and integration of special effects, 2-D animation, and 3-D animation for film, video, CD-ROM, and the Internet. Exploration of new and emerging compression and video streaming technologies. Prerequisite: IMED 1351. 3 credit hours.

**IMED 2345 Interactive Multimedia II**

Instruction in the use of scripting language to create time-based interactive multimedia projects. Topics include building a user interface, writing script, using commands and functions, testing, and debugging. 3 credit hours.

**IMED 2349 Internet Communications**

Advanced seminar in web server design and maintenance. Topics include scripting, web site planning, testing, security, production, and marketing. Also, discusses developments in the field of Internet communications. 3 credit hours.

**IMED 2351 Multimedia Programming (JavaScript)**

Advanced topics in multimedia programming including custom scripts for data tracking. Emphasis on developing multimedia programs customized to the client's needs. The student will demonstrate advanced utilization of custom functions and variables; develop error-checking subroutines; design intuitive navigation structures; and utilize advanced programming syntax. Prerequisites: IMED 1316 and 2315, or consent of instructor. 3 credit hours.

**INDS 1311 Fundamentals of Interior Design**

An introduction to the elements and principles of design, the interior design profession, and the interior design problem-solving process. Lab required. 3 credit hours.

**INDS 1315 Materials, Methods and Estimating**

A study of materials, methods of construction and installation, and estimating for interior design applications. Lab required. Prerequisite: INDS 1311 or consent of program coordinator. 3 credit hours.

NOTE: Capstones may be found in each program.

**INDS 1319 Technical Drawing for Interior Designers**

An introduction to reading and preparing technical construction drawings for interior design, including plans, elevations, details, schedules, dimensions and lettering. Lab required. 3 credit hours.

**INDS 1345 Commercial Design I**

A study of design principles applied to furniture layout and space planning for commercial interiors. Prerequisites: DFTG 1309, and INDS 1315 and 1349. Lab required. 3 credit hours

**INDS 1349 Fundamentals of Space Planning**

The study of residential and light commercial spaces, including programming, codes, standards, space planning, drawings, and presentations. Prerequisite: INDS 1311 or consent of program coordinator. Lab required. 3 credit hours.

**INDS 1351 History of Interiors I**

Historical survey of antiquities and European styles and periods of architecture, interiors, and furnishings. With consideration of Egypt, Greece, Italy, Spain, and France. Lab required. 3 credit hours.

**INDS 1352 History of Interiors II**

Historical survey of English, American, Asian, and 20th century styles and periods of architecture, interiors, and furnishings. Lab required. Prerequisite: INDS 1351. 3 credit hours.

**INDS 1380 Cooperative Education – Interior Design**

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

**INDS 2315 Lighting for Interior Designers**

Fundamentals of lighting design, including lamps, luminaries, lighting techniques, and applications for residential and commercial projects. Lab required. 3 credit hours.

**INDS 2330 Interior Design Building Systems**

An overview of building materials, mechanical systems, and construction techniques as applied to interior design. Discussion of codes, project sequencing and the interpretation of detailed working drawings. Lab required. Prerequisite: INDS 1311 and 1349. 3 credit hours.

**INDS 2331 Commercial Design II**

Advanced concepts of specialized commercial interior design projects, including hospitality, corporate, retail, health care, institutional, or other specialized commercial design projects. Lab required. Prerequisite: INDS 1345 and 2330. 3 credit hours.

**INDS 2337 Portfolio Presentation**

A course in the preparation and presentation of a comprehensive interior design portfolio, including resume preparation, employment interview skills, and goal setting. Lab required. Prerequisite: Consent of program coordinator. 3 credit hours.

**INMT 1447 Industrial Automation**

A study of the applications of industrial automation systems including identification of system requirements, equipment integration, motors, controllers, and sensors. Coverage of setup, maintenance, and testing of the automated system. Lab required. 4 credit hours.

**INTC 1305 Introduction to Electronic Instrumentation**

A survey of the instrumentation field and the professional requirements of the instrumentation technician, including an introduction to computer and calculator applications involved in basic electronic circuit analysis. Lab required. 3 credit hours.

**INTC 1307 Electronic Test Equipment**

A study of the theory and application of analog and digital meters, oscilloscopes, frequency generation, frequency measurements, and special measuring instruments. Emphasis on accuracy and limitations of instruments and calibration techniques. Lab required. 3 credit hours.

**ITAL 1411 Beginning Italian I**

Introduction to the basic skills of speaking, reading, writing, and listening. Intended for students with little or no previous training in Italian. 4 credit hours.

**ITAL 1412 Beginning Italian II**

Continuation of ITAL 1411. Prerequisite: ITAL 1411. 4 credit hours.

**ITCC 1302 Local Area Networks Design and Protocols: Cisco 1**

Skill development in the design and installation of local area networks to ensure optimal throughput. Topics include cabling, cable closets, management devices, selection, and installation of network devices, protocols, and subnetting. Lab required. 3 credit hours.

**ITCC 1306 Basic Router Configuration: Cisco 2**

An introduction to Cisco basic router configuration for local area networks. Topics include initial router configuration for TCP/IP, management of the configuration, backup of router configuration files, routing protocols, and the use of security features. Lab required. Prerequisite: ITCC 1302. 3 credit hours.

**ITCC 1342 Local Area Management (LAN): Cisco 3**

Skill development in managing traffic in local area networks (LAN) and in the management of network devices for LAN's. This course includes configuring of routers for IPX protocol, filtering traffic in an IPX environment, and identifying and resolving network congestion problems. Lab required. Prerequisite: ITCC 1306. 3 credit hours.

**ITCC 1346 Wide Area Management (WAN): Cisco 4**

An introduction to wide area networking (WAN) services and management. Lab required. Prerequisite: ITCC 1342. 3 credit hours.

**ITCC 2432 Advanced Routing Configuration: Cisco 5**

A study of advanced network development issues and methods used to configure Cisco routers for effective LAN and WAN traffic management. Includes designing scalable internetworks managing traffic and access for IP and IPX/SPX, configuring OSPF in single and multiple areas, and configuring and using interior and border gateway routing protocols. Lab required. Prerequisite: CCNA certified and successful completion of division exam or completion of Academy CCNA Program. 4 credit hours.

**ITCC 2436 Building Remote Access Networks: Cisco 6**

Designing and building remote access networks with Cisco products. Includes assembling and cabling WAN components, configuring network connections vis-asynchronous modem, ISDN, X.25, and frame relay architectures and associated protocols. Lab required. Prerequisite: ITCC 2432. 4 credit hours.

**ITCC 2440 Configuring LAN Switches: Cisco 7**

Introduction to Cisco switches and how to use Cisco switches effectively in networks. Includes switching concepts, virtual LANs, switch architecture (hardware and software), switch configuration, management and troubleshooting. Lab required. Prerequisite: ITCC 2436. 4 credit hours.

**ITCC 2444 Internetwork Troubleshooting: Cisco 8**

Study of troubleshooting methods for internetworks. Includes Cisco troubleshooting tools, diagnosing and correcting problems with TCP/IP, Novell, and AppleTalk networks, and with Frame Relay and ISDN network connections. Lab required. Prerequisite: ITCC 2440. 4 credit hours.

**ITMC 1419 Installing and Administering****Windows 2000 Server**

*Formerly ITNW 1419*

An introduction to Microsoft® Windows 2000 operating system in a single domain environment. Topics include basic installation, configuration tasks, and day-to-day administration tasks in a Windows 2000-based network. Lab required. 4 credit hours.

**ITMC 2457 Windows 2000 Active Directory**

*Formerly ITNW 2457*

Advanced concepts of planning and implementing Microsoft Windows 2000 Active Directory in an enterprise environment. Lab required. 4 credit hours.

**ITNW 1325 Fundamentals of Networking**

Instruction in networking technologies and their implementation. Topics include the OSI reference model, network protocols, transmission media, and networking hardware and software. Lab required. 3 credit hours.

**ITNW 1329 Novell Networking Essentials**

Study of networking technologies. Topics include the OSI reference model, network protocols, transmission media, and networking hardware and software. 3 credit hours.

**ITNW 1346 Microsoft Exchange Server 5.5 Series -  
Concepts and Administration**

Skills development in the day-to-day management of an established Exchange Server Organization using Microsoft® Exchange Server. Lab required. 3 credit hours.

**ITNW 1372 Client Operating System -  
Windows 2000 Professional**

An introduction to Microsoft Windows 2000 Professional operating system in networking environments (Windows NT, Windows 2000, and Novell Network). Topics include basic installation, configuration tasks, troubleshooting, and day-to-day administration tasks in a Microsoft Windows and Novell-based network environment. Lab required. Prerequisite: ITCC 1302 or ITNW 1325. 3 credit hours.

**ITNW 1380 Cooperative Education - Business Systems  
Networking and Telecommunications**

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

NOTE: Capstones may be found in each program.



***ITNW 2305 Network Administration for Novell NetWare***

Preparation to effectively manage a Novell NetWare network. Topics include network components, user accounts and groups, network file systems, file system security, and network printing. Lab required. 3 credit hours.

***ITNW 2321 Networking with TCP/IP (Network Infrastructure)***

Preparation to set up, configure, use, and support Transmission Control Protocol/Internet Protocol (TCP/IP) on networking operating systems. Lab required. 3 credit hours.

***ITNW 2352 Administering Microsoft SQL Server 7.0***

Administering Microsoft SQL Server 7.0 is a skills development course in the installation, configuration, administration, and troubleshooting of Microsoft® SQL Server™ client/server database management system version 7.0. Lab required. 3 credit hours.

***ITNW 2359 Creating and Managing a Web Server Using Microsoft Internet Information Server***

Instruction in the installation configuration, and implementation of Microsoft Internet Information Server (IIS). Lab required. 3 credit hours.

***ITNW 2365 Practicum – Business Systems Networking and Telecommunications***

Practical general training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be paid or unpaid. This course may be repeated if topics and learning outcomes vary. 3 credit hours.

***ITNW 2371 Network Operating System (Linux)***

The focus of this course is on installation, implementation, and support of a Unix/Linux operating system to function as a server in a client/server internetworking environment. This course provides the knowledge and skills required to install, configure, administer and troubleshoot in a Unix/Linux network server environment, Windows NT, Novell NetWare environment. Lab required. Prerequisite: ITCC 1302 or ITNW 1325. 3 credit hours.

***ITNW 2372 Systems Management – Windows NT SMS Server***

This course provides the knowledge and skills required to install, configure, administer and troubleshoot Microsoft Systems Management Server. Students will have the opportunity to implement multiple SMS sites, collect hardware and software inventory, distribute software to client computers, manage shared

applications, and using remote control functions diagnose and solve common problems. Lab required. Prerequisite: ITMC 1419, and ITNW 1372. 3 credit hours.

***ITSC 1309 Integrated Software Applications I - Microsoft Office***

*Formerly POFI 1345*

Integration of applications from popular business productivity software suites. Instruction in embedding data, linking and combining documents using word processing, spreadsheets, databases, and/or presentation media software. Prerequisite: COSC 1300. 3 credit hours.

***ITSC 1321 PC Operating Systems - Windows***

Introduction to windows-based microcomputer operating systems. Topics include installation and configuration, file management, memory and storage management, peripheral device control, and use of utilities. Covers fundamental through advanced concepts of the current Windows operating system and Windows applications. Hands-on instruction and lab projects are presented to help student master operating systems. 3 credit hours.

***ITSC 1327 Multi-user Operating Systems***

*Formerly ITSW 1327*

Summary of multi-user operating systems including a contrast of single-user and multi-user systems. Investigation of a variety of multi-user operating systems, similarities, and differences. 3 credit hours.

***ITSC 1380 Cooperative Education - Computer and Information Sciences, General***

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

***ITSC 2331 Integrated Software Applications III - VBA***

Designed for advanced users with emphasis on a wide range of productivity tasks including complex assignments that require advanced formatting and functionality. Visual Basic controls, objects, methods, and properties will be used from within Microsoft Office and other VBA compliant applications to develop integrated business applications. Software used is Visual Basic for Applications, which is used by professional developers to customize applications and to write extensions and add-ons for their customers. Prerequisite: ITSE 2349. 3 credit hours.

### **ITSC 2335 Application Problem Solving**

Utilization of current application software to solve advanced problems and generate customized solutions, involving project and software specific to a specific curricular area. 3 credit hours.

### **ITSC 2380 Cooperative Education - Computer and Information Sciences, General**

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. Prerequisite: ITSC 1380 or consent of instructor. 3 credit hours.

### **ITSE 1331 Introduction to Visual BASIC Programming**

Introduction to computer programming using Visual BASIC. Emphasis on the fundamentals of structured design, development, testing, implementation, and documentation. Includes language syntax, data and file structures, input/output devices, and files. Prerequisite: ITSC 1321. 3 credit hours.

### **ITSE 1380 Cooperative Education - Computer Programming**

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

### **ITSE 1391 Special Topics in Computer Programming**

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. Prerequisite: Consent of instructor. 3 credit hours.

### **Active X, Active Server Pages (ASP), Visual Interdev, and Visual Basic (VB) Script**

In this course students are introduced to n-tier Active Server Pages (ASP) development using Visual Basic (VB) Script to create web applications; Visual Basic for Active X component development; and an introduction to VISUAL INTERDEV. Prerequisite: ITSE 1331 or consent of instructor.

### **Embedded Systems Programming**

The course will be a discussion of techniques involved in creating object oriented programs using the C++ language which will be running within hardware developed by Raytheon (such as missile guidance systems and aircraft control units). The emphasis will be on techniques to (1) develop software with fewer bugs and shortened development time, (2) minimize memory requirements, (3) improve speed of execution in such specialized environments, and (4) interact with specialized hardware.

### **ITSE 1402 Introduction to Computer Programming - Java for Web Developers**

Introduction to computer programming with emphasis on the fundamentals of structured design, development, testing, implementation, and documentation. Includes language syntax, data, and file structures, input/output devices, and files. Focus is on programming for the World Wide Web (WWW). Design applets to be transported to the Internet and executed in WWW browsers. Lab required. Prerequisites: COSC 1300 and IMED 1301, or consent of the instructor. 4 credit hours.

### **ITSE 2301 Introduction to Windows Programming Using C++**

Introduction to computer programming for windows using C++. Emphasis on the fundamentals of structured design, development, testing, implementation, and documentation. Includes language syntax, data, and file structures. Input/output devices, and files. Uses Visual C++ in an integrated development environment. Prerequisite: COSC 2320 or 2420. 3 credit hours.

### **ITSE 2309 Introduction to Database Programming - SQL**

Application development using database programming techniques emphasizing database structures, modeling, and database access. Prerequisite: ITSW 1307. 3 credit hours.

### **ITSE 2313 Web Authoring**

Instruction in designing and developing web pages that incorporate text, graphics, and other supporting elements using current technologies and authoring tools. Prerequisites: COSC 1300 and IMED 1316, or consent of instructor. 3 credit hours.

### **ITSE 2317 Java Programming**

Introduction to Java programming with object-orientation. Emphasis on the fundamental syntax and semantics of Java for applications and web applets. Primary emphasis is on development of completed object-oriented applications, both with and without a graphical interface. Prerequisite: COSC 2320 or 2420. 3 credit hours.

NOTE: Capstones may be found in each program.

***ITSE 2333 Implementing a Database on Microsoft SQL Server 7.0***

Skills development in the implementation of a database solution using Microsoft SQL Server client/server database management system version 7.0. 3 credit hours.

***ITSE 2339 Advanced Windows Programming Using C++***

Further applications of windows programming techniques using C++, including file access methods, data structures, modular programming, program testing, and documentation. Topics will include building DLLs, multi-threaded applications, ActiveX controls and COM objects, and connecting to a database via SQL. Prerequisite: COSC 2374. 3 credit hours.

***ITSE 2347 Advanced Database Programming***

Application development using complex database programming techniques emphasizing multiple interrelated files, menu design, security implementation, and multiple access. 3 credit hours.

***ITSE 2349 Advanced Visual BASIC Programming***

Further applications of programming techniques using Visual BASIC. Topics include file access methods, data structures and modular programming, program testing and documentation. Students will design and create integrated, interactive business-oriented programs using current OLE, DAO, ADO, DLLs and the Windows API along with other advanced coding techniques. Prerequisites: ITSE 1331 and ITSW 1307. 3 credit hours.

***ITSE 2371 Team Development of Software Applications***

Students working together as a team to take one problem from description through design, coding, and testing to yield a working software application that performs a requested activity. Students will form a small team and the team will be responsible for the full solution (working program) of the required problem statement under the instructor's guidance. Grade will be given based on team performance and each student's contribution to the team. Prerequisites: COSC 2315 and 2374. 3 credit hours.

***ITSE 2372 Object-Oriented Design***

Study of how to start with an English language description of a problem and create a design for a programming solution using object oriented techniques. Topics include determining what objects will be required, how to decide what members an object requires, how to determine relationships between objects, and how to partition a design to be implemented by multiple members of a team. Prerequisite: COSC 2320, 2330, or 2420. 3 credit hours.

***ITSE 2373 Database Programming with Visual C++ and SQL***

This is a class to learn to write programs using C++ in the Microsoft

windows environment and demonstrating the use of interacting with a database via SQL calls (both by using native SQL calls and by using the ODBC interface). Prerequisites: ITSE 2301 and 2309. 3 credit hours.

***ITSE 2380 Cooperative Education - Computer Programming***

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. Prerequisite: ITSE 1380 or consent of program coordinator. 3 credit hours.

***ITSW 1304 Introduction to Spreadsheets - Excel***

Instruction in the concepts, procedures, and importance of electronic spreadsheets. Prerequisite: COSC 1300 or ITSC 1321. 3 credit hours.

***ITSW 1306 UNIX Operating System I***

A study of the UNIX operating system including multi-user concepts, terminal emulation, use of system editor, basic UNIX commands, and writing script files. Topics include introductory systems management concepts. Prerequisite: In-depth knowledge of one programming language. 3 credit hours.

***ITSW 1307 Introduction to Database - Access***

Introduction to database theory and the practical applications of a database. Emphasis on database design, custom reports, file management, and application creation. Prerequisite: COSC 1300 or ITSC 1321. 3 credit hours.

***ITSW 1310 Presentation Media Software - PowerPoint***

Instruction in the utilization of presentation software to produce multimedia presentations. Graphics, text, sound, animation and/or video may be used in presentation development. Prerequisite: COSC 1300 or consent of instructor. 3 credit hours.

***ITSW 1380 Cooperative Education - Data Processing Technology/Technician***

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

### **ITSW 2380 Cooperative Education - Data Processing Technology/Technician**

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. Prerequisite: ITSW 1380 or consent of program coordinator. 3 credit hours.

## **J**

### **JAPN 1411 Beginning Japanese I**

Introduction to the basic skills of speaking, reading, writing, and listening with attention to selected aspects of Japanese culture; designed for students with little or no previous language training. Instruction is enhanced by the use of tapes, slides, and video cassettes. 4 credit hours.

### **JAPN 1412 Beginning Japanese II**

A continuation of JAPN 1411. Prerequisite: JAPN 1411. 4 credit hours.

### **JAPN 2311 Intermediate Japanese I**

Continuing development of the four basic skills of speaking, reading, writing, and listening, emphasizing conversational and reading skills. Designed for students who have completed Beginning Japanese II. Additional Kanji structures are introduced. Also includes attention to selected aspects of Japanese culture. Prerequisite: JAPN 1412. 3 credit hours.

### **JAPN 2312 Intermediate Japanese II**

Continued development of four basic language skills with emphasis on conversation and reading skills. Additional Kanji and grammar structures are introduced. Includes attention to selected aspects of Japanese culture. Prerequisite: JAPN 2311. 3 credit hours.

## **L**

### **LGLA 1303 Legal Research**

This course provides a working knowledge of the fundamentals of effective legal research. Topics include law library techniques, computer assisted legal research, briefs, and legal memoranda. Prerequisite: LGLA 1307 or 1346, or consent of instructor. 3 credit hours.

### **LGLA 1305 Legal Writing**

This course provides a working knowledge of the fundamentals of effective legal writing. Topics include briefs, legal memoranda, case and fact analysis, citation forms, and legal writing styles. 3 credit hours.

### **LGLA 1307 Introduction to Law and the Legal Profession**

This course provides an overview of the law and the legal professions. Topics include legal concepts, systems, and terminology; ethical obligations and regulations; professional trends and issues with particular emphasis on the paralegal. 3 credit hours.

### **LGLA 1317 Law Office Technology**

This course introduces computer technology and its applications within the law office. Topics include the use of computer technology in the delivery of legal services with particular emphasis on the paralegal's role. Prerequisite: POFI 1301 or 2301, or consent of instructor. 3 credit hours.

### **LGLA 1346 Civil Litigation I**

This course presents fundamental concepts and procedures of civil litigation with emphasis on the paralegal's role. Civil Litigation I together with Civil Litigation II covers litigation from the pretrial stage to the post trial phase. 3 credit hours.

### **LGLA 1347 Civil Litigation II**

This course presents fundamental concepts and procedures of civil litigation with emphasis on the paralegal's role. Civil Litigation II together with Civil Litigation I covers litigation from the pre-trial stage to the post-trial stage. Prerequisite: LGLA 1346 or consent of instructor. 3 credit hours.

### **LGLA 1353 Wills, Trusts, and Probate Administration**

This course presents fundamental concepts of the law of wills, trusts, and probate administration with emphasis on the paralegal's role. 3 credit hours.

### **LGLA 1355 Family Law**

This course presents fundamental concepts of family law with emphasis on the paralegal's role. Topics include formal and informal marriages, divorce, annulment, marital property, and the parent-child relationship. 3 credit hours.

### **LGLA 1380 Cooperative Education - Paralegal/Legal Assistant**

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with



work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

**LGLA 1391 Special Topics in Paralegal/Legal Assistant**

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. 3 credit hours.

**Certification for Legal Assistant Review**

Comprehensive review for the Certified Legal Assistant Examination covering the seven major areas of law, including torts, property law, criminal law, contract law, administrative law, civil law, and juvenile law. Students are strongly recommended to take this course after completion of core LGLA classes.

**Legal Analysis**

Emphasizes the structure of a legal memorandum. Covers the use of effective writing style and use of Texas legal research materials. Students will also learn how to brief a case. It is strongly suggested that this course be completed in the student's first semester of enrollment. Prerequisite: LGLA 1305.

**LGLA 2303 Torts and Personal Injury Law**

This course presents fundamental concepts of tort law with emphasis on the paralegal's role. Topics include intentional torts, negligence, and strict liability. 3 credit hours.

**LGLA 2307 Law Office Management**

This course presents the fundamentals of law office management and organization including basic principles and structure of management, administrative and substantive systems in the law office, and law practice technology. 3 credit hours.

**LGLA 2333 Advanced Legal Document Preparation**

Preparation of legal documents based on hypothetical fact situations drawn from various areas including real estate, family law, contracts, litigation, and business organization. Prerequisite: POFI 1301 or 2301, or consent of instructor. 3 credit hours.

**LGLA 2381 Cooperative Education - Paralegal/Legal Assistant**

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning

outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

**LOTT 1401 Introduction to Fiber Optics**

An introductory course in fiber optics and its application including advantages of fiber, light transmission in fiber, types of fiber, sources, detectors, and connectors. Lab required. 4 credit hours.

**LOTT 2440 Microwave Fundamentals**

Introduction to microwave theory and applications, transmitter and receiver. Lab required. Prerequisite: CETT 1409. 4 credit hours.

**M**

**MATH 0115 Introductory Geometry**

Study of plane and solid geometry; recommended for students who have not passed the TASP mathematics requirement; required for students who have not passed high school geometry and are planning to take MATH 1314, 1316, or 2312. Lab included. *May not be used to satisfy the requirements of an associate degree.* Prerequisite: MATH 0305 or equivalent. 1 credit hour.

**MATH 0300 Basic Mathematics**

Study of arithmetic operations with whole numbers, fractions, decimals, percents, and basic geometry. Introduction to algebra including signed numbers, expressions, and equations. Lab included. *May not be used to satisfy the requirements of an associate degree.* 3 credit hours.

**MATH 0302 Pre-Algebra**

Study of mathematical operations with signed numbers, algebraic expressions, and polynomials; involves solving linear equations and geometric applications. Lab included. *May not be used to satisfy the requirements of an associate degree.* Prerequisite: MATH 0300 or equivalent. 3 credit hours.

**MATH 0305 Beginning Algebra**

Study of rational numbers, expressions, linear equations and inequalities, polynomials, factoring, radicals, rational expressions, rational equations, exponents, quadratic equations, and graphing. Lab included. *May not be used to satisfy the requirements of an associate degree.* Prerequisite: MATH 0302 or equivalent. 3 credit hours.

**MATH 0310 Intermediate Algebra**

Study of polynomials, rational expressions and equations, radicals, exponents, quadratic equations, inequalities, systems of equations, functions, graphing, and parabolas. Lab included. *May not be used to satisfy the requirements of an associate degree.* Prerequisite: MATH 0305 or equivalent. 3 credit hours.

### **MATH 0320 Math Study Skills**

Explores techniques to reduce anxiety through increased skill development in mathematics, study strategies, test-taking strategies, anxiety awareness, learning style awareness, relaxation, and wellness. This course is for enrichment and is not required in the developmental math course sequence. *May not be used to satisfy the requirements of an associate degree.* 3 credit hours.

### **MATH 1314 College Algebra**

Relations and functions: linear, polynomial, rational, exponential, logarithmic, and inverse functions, composition of functions, absolute value, theory and systems of equations, complex numbers, matrices, sequences, and the binomial theorem. Graphing calculator required. Lab required. Prerequisites: Two years high school algebra or MATH 0310 within the last three years, and one year of high school geometry or MATH 0115. 3 credit hours.

### **MATH 1316 Trigonometry**

Angular measure, functions of angles, identities, solution of triangles, equations, inverse trigonometric functions, complex numbers, and polar coordinates. Graphing calculator required. Prerequisites: 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**

For non-math majors. Equations, inequalities, functions, matrices, linear programming including the simplex method, probability, and statistics. Lab required. Prerequisite: Two years high school algebra or equivalent within the last three years. 3 credit hours.

### **MATH 1325 Calculus for Business and Economics I**

Study of differential calculus and integral calculus, including exponential and logarithmic functions, functions of several variables, and basic differential equations. Lab required. Prerequisite: MATH 1324 within the last three years. 3 credit hours.

### **MATH 1332 Contemporary Mathematics**

For liberal arts and non-engineering technical majors. Involves statistics, counting methods, probability, scheduling, circuits, and other topics in management science and consumer mathematics. Prerequisite: One year of high school algebra or MATH 0305 within the last three years. 3 credit hours.

### **MATH 1342 Statistics**

Data collection and tabulation, measures of central tendency, correlation, linear regression, statistical distributions, probability, and hypothesis testing with applications in various fields. Graphing calculator required. Lab required. Prerequisite: Two years of high school algebra or equivalent within the last three years. 3 credit hours.

### **MATH 1350 Fundamentals of Mathematics I**

Concepts of sets, functions, numeration systems, number theory, and properties of the natural numbers, integers, rational, and real number systems with an emphasis on problem solving and critical thinking. This course is designed specifically for students who seek middle grade (4-8) teacher certification. Prerequisite: MATH 1314 or equivalent. 3 credit hours.

### **MATH 1351 Fundamentals of Mathematics II**

Concepts of geometry, probability, and statistics, as well as applications of the algebraic properties of real numbers to concepts of measurement with an emphasis on problem solving and critical thinking. This course is designed specifically for students who seek middle grade (4-8) teacher certification. Prerequisite: MATH 1350. 3 credit hours.

### **MATH 1370 Introduction to the History of Mathematics**

Study of the development of mathematics from ancient to modern times through the exploration of mathematical problems and techniques, the study of famous mathematicians, and the study of the relationship between mathematics and the societies and cultures in which it developed. 3 credit hours.

### **MATH 1376 Calculus for Business and Economics II**

Continuation of MATH 1325. In this course, applications of differential equations, functions of several variables, Lagrange Multipliers, Least Squares Modeling, multiple integrals, and infinite series will be covered. Basic concepts are related to multivariable calculus. Lab required. Prerequisite: MATH 1325 within the last three years. 3 credit hours.

### **MATH 2305 Discrete Mathematics**

Introduction to mathematical logic and algorithms. Graph theory, combinatorics, and applications to computer science. Lab required. Prerequisite: MATH 2413 within the last three years. 3 credit hours.

### **MATH 2312 Pre-Calculus for Mathematics and Science**

Functions and analytic geometry including polynomial, rational, exponential, logarithmic, and trigonometric functions, complex numbers, vectors, conics, transformation of coordinates, polar coordinates, and parametric equations. Emphasis on mathematical reasoning in preparation for calculus. Some knowledge of trigonometry is needed. Graphing calculator required. Lab required. Prerequisite: MATH 1314 or equivalent within the last three years. 3 credit hours.

### **MATH 2318 Linear Algebra**

Linear equations, matrices, real vector spaces, linear transformations, and eigenvectors. Graphing calculator required. Prerequisite: MATH 2414 within the last three years. 3 credit hours.

NOTE: Capstones may be found in each program.

**MATH 2320 Differential Equations**

Differential equations including systems of equations, linear equations, separation of variables, series solutions, uniqueness of solutions, initial value problems, transform methods, and singular points. Graphing calculator required. Prerequisite: MATH 2414 within the last three years. 3 credit hours.

**MATH 2389 Academic Co-op Mathematics**

Integrates on-campus study with practical hands-on work experience in mathematics. In conjunction with class seminars, the individual student will set specific goals and objectives in the study of mathematics. Contact the Cooperative Work Experience Office. 3 credit hours.

**MATH 2413 Calculus I**

Limits, continuity, derivatives, applications of the derivative, and integrals. Graphing calculator required. Lab included. Prerequisite: MATH 2312 or equivalent within the last three years. 4 credit hours.

**MATH 2414 Calculus II**

Applications of integration, techniques of integration, infinite series, differential equations, and polar functions. Graphing calculator required. Lab included. Prerequisite: MATH 2413 within the last three years. 4 credit hours.

**MATH 2415 Calculus III**

Vectors in two and three dimensions, vector-valued functions, functions of several variables, multiple integration, and calculus of vector fields. Graphing calculator required. Lab included. Prerequisite: MATH 2414 within the last three years. 4 credit hours.

***MLAB 1223 Phlebotomy***

Skill development in the performance of a variety of blood collection methods using proper techniques and universal precautions. Includes vacuum collection devices, syringes, capillary skin puncture, butterfly needles and blood culture, and specimen collection on adults, children, and infants. Emphasis on infection prevention, proper patient identification, labeling of specimens and quality assurance, specimen handling, processing, and accessioning. Lab included. Corequisite: HPRS 1201 and MLAB 1263. 2 credit hours.

***MLAB 1263 Clinical - Medical Laboratory Technician/Assistant***

A method of instruction providing detailed education, training, work-based experience, and direct patient/client care generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision, evaluation, and placement is the responsibility of the college faculty. Course may be repeated if topics and learning outcomes vary. Corequisites: HPRS 1201 and MLAB 1223. 2 credit hours.

***MRKG 1311 Principles of Marketing***

Introduction to basic marketing functions; identification of consumer and organizational needs; explanation of economic, psychological, sociological, and global issues; and description and analysis of the importance of marketing research. 3 credit hours.

***MRKG 1380 Cooperative Education - Business Marketing and Marketing Management***

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

***MRKG 1391 Special Topics in Business Marketing and Marketing Management***

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. 3 credit hours.

***Customer Service***

In-depth study of what customer service is in the current marketplace, how it is used as a competitive tool, and how modern businesses are practicing its elements. Learn to work with both external and internal customers.

***MRKG 2381 Cooperative Education - Business Marketing and Marketing Management***

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

***MRMT 1267 Practicum - Medical Transcription (Capstone)***

Practical general training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be paid or unpaid. This course may be repeated if topics and learning outcomes vary. Contact the Medical Transcription Coordinator and the Cooperative Work Experience Office. 2 credit hours.

**MRMT 1282 Cooperative Education - Medical Transcription (Capstone)**

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Medical Transcription Coordinator and the Cooperative Work Experience Office. 2 credit hours.

**MUAP 1101-1191 Secondary Applied Music**

Lab course for the music minor. Private instruction in the area of the student's concentration, consisting of one 30-minute lesson per week. Students must remain enrolled in 3 credits of MUSI, MUSB, or MUSC courses and 1 credit of MUEN or MUSP courses for the semester. May be repeated for credit. Prerequisite: Audition. 1 credit hour.

MUAP 1101 Violin  
MUAP 1105 Viola  
MUAP 1109 Cello  
MUAP 1113 Double Bass  
MUAP 1115 Electric Bass  
MUAP 1117 Flute  
MUAP 1121 Oboe  
MUAP 1125 Bassoon  
MUAP 1129 Clarinet  
MUAP 1133 Saxophone  
MUAP 1137 Trumpet  
MUAP 1141 French Horn  
MUAP 1145 Trombone  
MUAP 1149 Baritone  
MUAP 1153 Tuba  
MUAP 1157 Percussion  
MUAP 1158 Drum Set  
MUAP 1161 Guitar  
MUAP 1162 Jazz Guitar  
MUAP 1163 Steel String Guitar  
MUAP 1165 Organ  
MUAP 1169 Piano  
MUAP 1170 Jazz Piano  
MUAP 1177 Harp  
MUAP 1181 Voice  
MUAP 1187 Composition  
MUAP 1188 Electroacoustic Composition  
MUAP 1189 Song Writing  
MUAP 1190 Arranging  
MUAP 1191 Conducting

**MUAP 1201-1291 Principal Applied Music**

For music majors only. Private instruction in the area of the student's concentration, consisting of one 50-minute lesson per week. Students must remain enrolled in at least 5 music credits of MUSI, MUSB, or MUSC courses and at least 1 credit of MUEN or MUSP courses for the semester. May be repeated for credit. Prerequisite: Audition. 2 credit hours.

MUAP 1201 Violin  
MUAP 1205 Viola  
MUAP 1209 Cello  
MUAP 1213 Double Bass  
MUAP 1215 Electric Bass  
MUAP 1217 Flute  
MUAP 1221 Oboe  
MUAP 1225 Bassoon  
MUAP 1229 Clarinet  
MUAP 1233 Saxophone  
MUAP 1237 Trumpet  
MUAP 1241 French Horn  
MUAP 1245 Trombone  
MUAP 1249 Baritone  
MUAP 1253 Tuba  
MUAP 1257 Percussion  
MUAP 1258 Drum Set  
MUAP 1261 Guitar  
MUAP 1262 Jazz Guitar  
MUAP 1263 Steel String Guitar  
MUAP 1265 Organ  
MUAP 1269 Piano  
MUAP 1270 Jazz Piano  
MUAP 1277 Harp  
MUAP 1281 Voice  
MUAP 1287 Composition  
MUAP 1288 Electroacoustic Composition  
MUAP 1289 Song Writing  
MUAP 1290 Arranging  
MUAP 1291 Conducting

**MUEN 1122 TI Stage Band**

Open to employees of Texas Instruments; the band performs a variety of music literature. May be repeated for credit. 1 credit hour.

**MUEN 1123 Plano Community Band**

A large community ensemble that performs a wide variety of music literature. May be repeated for credit. 1 credit hour.

**MUEN 1131 New Music Ensemble**

Performs experimental, avant garde, electronic, and contemporary music for mixed media ensemble. May be repeated for credit. Prerequisite: Audition. 1 credit hour.

NOTE: Capstones may be found in each program.



**MUEN 1132 Keyboard Ensemble**

Traditional piano literature for multiple performers and arrangements for electronic keyboard ensemble. Several performances each semester. May be repeated for credit. Prerequisite: Audition. 1 credit hour.

**MUEN 1133 Woodwind Ensemble**

A small group of woodwinds performs traditional classical repertoire. May be repeated for credit. Prerequisite: Audition. 1 credit hour.

**MUEN 1134 Brass Ensemble**

A small group of brass players performs traditional classical repertoire. May be repeated for credit. Prerequisite: Audition. 1 credit hour.

**MUEN 1136 Chamber Ensemble**

A mixed instrumentation of wind and string players performs traditional classical repertoire. May be repeated for credit. Prerequisite: Audition. 1 credit hour.

**MUEN 1137 Guitar Ensemble**

A small group of guitarists performs traditional classical repertoire. May be repeated for credit. Prerequisite: Audition. 1 credit hour.

**MUEN 1138 Percussion Ensemble**

A small group of percussion players performs jazz and traditional repertoire. May be repeated for credit. Prerequisite: Audition. 1 credit hour.

**MUEN 1139 String Ensemble**

A small group of string players performs traditional classical repertoire. May be repeated for credit. Prerequisite: Audition. 1 credit hour.

**MUEN 1141 Collin County Chorale**

Open to all interested students. This mixed choral ensemble studies and performs a wide variety of music representing the choral literature. Several performances each semester; annual Spring tour. May be repeated for credit. Prerequisite: Prior school/college choral experience or consent of the director. 1 credit hour.

**MUEN 1151 Chamber Singers**

A select vocal ensemble consisting of approximately 16 singers. Repertoire includes madrigals and choral literature appropriate for the smaller ensemble. Several performances on and off campus each semester. May be repeated for credit. Prerequisite: Audition. 1 credit hour.

***MUSB 1301 Legal Aspects of the Entertainment Industry***

A course in the basics of copyright law and the various agreements

used in the entertainment industry with emphasis on contracts used by music publishers, record companies, artist management, record producers, film and television producers, and booking agencies. Prerequisite: MUSB 1305. 3 credit hours.

***MUSB 1305 Survey of Music Business***

An overview of the music industry including songwriting, live performance, the record industry, music merchandising, contracts and licenses, and career opportunities. 3 credit hours.

***MUSB 2301 Music Marketing and Merchandising***

A study of the methods of distribution, retailing, and wholesaling. Topics include the basics of purchasing, inventory control, shipping and receiving, returns, pricing and cost analysis, merchandising, retail display, sales promotion, advertising, security and shrinkage, personnel management, and relationships between retailers and distributors. Prerequisite: MUSB 1305. 3 credit hours.

***MUSB 2309 The Record Industry***

A study of the history of the record industry and the organization of large and small record companies. Topics include record company functions such as audio and recording (A & R), promotion, marketing, business affairs, and administration and distribution. Prerequisite: MUSB 1305. 3 credit hours.

***MUSB 2380 Cooperative Education - Music Business Management and Merchandising***

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

***MUSC 1209 Conducting Class***

Introduction to the art of conducting including regular and irregular beat patterns, subdivision, and beat pattern varieties applied to musical literature and practical experience. 2 credit hours.

***MUSC 1213 Commercial Music Theory I***

Introduction to chord progressions, song forms, and harmonic techniques used in commercial music. Topics include modern chord notation and chord voicings. Prerequisite: MUSI 1301; Corequisites: MUSC 1215 and MUSI 1171. 2 credit hours.

**MUSC 1215 Music Performance Ear Training I**

Introduction to sight singing tonal music in commonly used clefs. Topics include aural study (including dictation) of the commercial aspects of melody and diatonic harmony. 2 credit hours.

**MUSC 1303 History of Popular Music**

A study of commercial music industry trends and developments through historical analysis. Topics include the evolution of the music industry with emphasis on the development of popular musical styles and the impact of culture and technology on industry growth. 3 credit hours.

**MUSC 1321 Songwriting**

Introduction to the techniques of writing marketable songs including the writing of lyrics and melodies, setting lyrics to music, developing lyrical and musical “hooks”, analyzing the marketplace, and developing a production plan for a song demo. 3 credit hours.

**MUSC 1327 Audio Engineering I**

An overview of the modern recording studio and related personnel. Topics include basic studio electronics and acoustic principles, wave form analysis, microphone concepts and miking techniques, studio set up and signal flow, recording console theory, signal processing concepts, tape machine principles and operation, and an overview of mixing and editing. 3 credit hours.

**MUSC 1329 Computer Music Notation I**

Survey of music notation software and applications with skill development in computer music notation. Emphasis on notation software programs which serve the requirements of publishers. Prerequisite: MUSI 1301. 3 credit hours.

**MUSC 1331 Musical Instrument Digital Interface (MIDI) I**

An overview of Musical Instrument Digital Interface (MIDI) systems and applications. Topics include the history and evolution of MIDI, hardware requirements, computer numbering systems, channels and modes, the MIDI language, and typical implementation of MIDI applications in the studio environment using software-based sequencing programs. 3 credit hours.

**MUSC 1333 Synthesis I**

A study of sound synthesis including sound considerations, electronic sound sources, basic signal processing, and voltage control and modulation. Topics include additive, subtractive, and AM and FM synthesis types. 3 credit hours.

**MUSC 2213 Commercial Music Theory II**

Continuation of MUSC 1213 with emphasis on composing and harmonizing melodies. Prerequisite: MUSC 1213. 2 credit hours

**MUSC 2314 Improvisation Theory I**

A study of the chordal structures of jazz, rock, country, and fusion with emphasis on extemporaneous performance. 3 credit hours.

**MUSC 2330 Commercial Music Arranging and Composition**

Presentation of arranging and composition for projects in industry recognized genres including songwriting, show writing, video, and film 3 credit hours.

**MUSC 2343 Audio Engineering Electronics Troubleshooting**

Advanced concepts in troubleshooting and diagnosing audio problems. Topics include soldering techniques, audio electronic alignment procedures for tape machines, console maintenance, and sound reinforcement equipment maintenance. Prerequisite: MUSC 1327. 3 credit hours.

**MUSC 2351 Audio for Video**

Skill development in advanced audio production techniques for video production. Topics include synchronization, SMPTE time code, automated mixdown, audio post production for video, and nonlinear and traditional editing techniques. 3 credit hours.

**MUSC 2355 Musical Instrument Digital Interface (MIDI) II**

A continuation of MUSC 1331, MIDI I, with emphasis on advanced sequencer operation, and SMPTE-based synchronization in the interaction of multiple recording and playback systems. 3 credit hours.

**MUSC 2405 Sound Reinforcement Systems Technology**

A study of the principles and applications used in sound reinforcement for public address design. Topics include public address research and design, stage set-up and control, and public address packaging. Prerequisite: MUSC 1327. 4 credit hours.

**MUSC 2427 Audio Engineering II**

A continuation of MUSC 1327 with emphasis on implementation of the techniques and theories of the recording process. Topics include applications of microphones, the audio console, the multitrack tape recorder, and signal processing devices in recording session environments. Prerequisite: MUSC 1327. 4 credit hours.

**MUSC 2447 Audio Engineering III**

Presentation of advanced procedures and techniques utilized in recording and manipulating audio information. Topics include advanced computer-based console automation, hard disk based digital audio editing, nonlinear digital multitrack recording, and advanced engineering project completions. Prerequisite: MUSC 2427. 4 credit hours.

NOTE: Capstones may be found in each program.

**MUSC 2448 Audio Engineering IV**

Examination of the role of the producer including recording, mixing, arranging, analyzing projects, session planning, communication, budgeting, business aspects, technical considerations, and music markets. Prerequisite: MUSC 2447. 4 credit hours.

**MUSI 1116 Aural Skills I**

Skills developed include sight-singing, solmization, and melodic and harmonic dictation. Corequisite: MUSI 1311. 1 credit hour.

**MUSI 1117 Aural Skills II**

Further emphasis on diatonic sight-singing and dictation. Prerequisite: MUSI 1116; Corequisite: MUSI 1312. 1 credit hour.

**MUSI 1157 Opera Workshop I**

Performance of portions or complete operas and the study of the integration of music, acting, and staging of an opera. Prerequisite: Consent of instructor. 1 credit hour.

**MUSI 1158 Opera Workshop II**

A continuation of Opera Workshop I. Developing advanced techniques I the integration of music, acting, and the staging of an opera. Prerequisite: MUSI 1157. 1 credit hour.

**MUSI 1159 Musical Theatre Workshop I**

Study and performance of works in the musical theatre repertoire. May be taken as MUSI 1159 or DRAM 1161, but not both. Prerequisite: Consent of instructor. 1 credit hour.

**MUSI 1160 Italian Diction**

Presents the phonetic sounds of the Italian language, the principles of which will be applied to required vocal repertoire for transfer music majors. Required for voice majors, but open to all students with consent of instructor. 1 credit hour.

**MUSI 1161 English Diction**

Presents the phonetic sounds of the English language, the principles of which will be applied to required vocal repertoire for transfer music majors. Required for voice majors, but open to all students with consent of instructor. 1 credit hour.

**MUSI 1171 Leisure Piano I**

Fundamentals of keyboard technique for the non-music major. May be repeated for credit. 1 credit hour.

**MUSI 1172 Leisure Piano II**

A continuation of MUSI 1171 with an emphasis on development of sight reading skills, repertoire, and keyboard technique. May be repeated for credit. Prerequisite: MUSI 1171. 1 credit hour.

**MUSI 1181 Beginning Piano I**

Fundamentals of keyboard technique for music majors, but open to all students. Five finger major and minor positions, two octave major scales, arpeggios, sight reading, elementary chord progressions, and elementary piano repertoire. This three-hour per week course covers chapters 1-15 of *Alfred's Group Piano for Adults, Volume 1*. May be repeated for credit. Lab required. 1 credit hour.

**MUSI 1182 Beginning Piano II**

Development on two octave minor scales, arpeggios, diatonic chord progressions, and piano repertoire. This three-hour per week course covers chapters 16-30 of *Alfred's Group Piano for Adults, Volume 1*. May be repeated for credit. Lab required. Prerequisite: MUSI 1181 or 1172. 1 credit hour.

**MUSI 1183 Class Voice I**

Class instruction in the fundamentals of singing including posture, breath support, vocal production, and diction. For the non-vocal major. May be repeated for credit. 1 credit hour.

**MUSI 1184 Class Voice II**

A continuation of MUSI 1183 with further emphasis on proper technique and vocal literature. May be repeated for credit. Prerequisite: MUSI 1183. 1 credit hour.

**MUSI 1192 Class Guitar I**

Class instruction in the fundamentals of beginning guitar. For the non-guitar major. May be repeated for credit. 1 credit hour.

**MUSI 1193 Class Guitar II**

Continuation of MUSI 1192 employing advanced reading skills, chord structures, and techniques. May be repeated for credit. Prerequisite: MUSI 1192. 1 credit hour.

**MUSI 1287 Introduction to Composition**

Fundamentals of music composition including structural and formal composition techniques, computer-based musical notation, and basic MIDI sequencing. Corequisite: MUSI 1311. 2 credit hours.

**MUSI 1301 Music Fundamentals**

Introduces 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**

Understanding music through the study of cultural periods, major composers, and musical elements. 3 credit hours.

**MUSI 1310 History of Jazz**

Development of jazz music in the 20th century studied through text, audio, and video recordings. Includes the personalities and elements that shaped jazz and the social issues of the times as displayed by the music of each decade. 3 credit hours.

**MUSI 1311 Music Theory I**

The second course in the music theory sequence which investigates modes, transposition, cadences and non-harmonic tones, phrase structure, musical textures, and four-part voice leading. Related keyboard and aural skills are covered in corequisite classes. Prerequisite: MUSI 1301; Corequisites: MUSI 1116 and 1181 (MUSI 1171 for students pursuing an AAS in commercial music). 3 credit hours.

**MUSI 1312 Music Theory II**

Development of melody harmonization through the understanding of harmonic progression, usage of 7th chord, elementary modulation, secondary harmonies, and large formal divisions. Related keyboard and aural skills are covered in corequisite classes. Prerequisite: MUSI 1311; Corequisites: MUSI 1117 and 1182. Offered in spring semesters only. 3 credit hours.

**MUSI 1386 Introduction to Composition**

*Formerly "Arranging"*

Fundamentals of music composition including structural and formal composition techniques, computer-based musical notation, and basic MIDI sequencing. Prerequisite: MUSI 1301. 3 credit hours.

**MUSI 2116 Aural Skills III**

Continuation of MUSI 1117. Aural study of superimposition, singing modulations to closely related keys, melodic and harmonic modulations, and compound intervals. Prerequisite: MUSI 1117; Corequisite: MUSI 2311. 1 credit hour.

**MUSI 2117 Aural Skills IV**

Final course in Aural Skills sequence. Singing remote modulations and difficult melodies; aural study of unusual and mixed meters; altered chords; 9th, 11th, and 13th chords. Prerequisite: MUSI 2116; Corequisite: MUSI 2312. 1 credit hour.

**MUSI 2159 Musical Theatre Workshop II**

A continuation of Musical Theatre Workshop I. Developing advanced techniques in presenting works from the musical theatre repertoire. May be taken as MUSI 2159 or DRAM 1162 but not both. Prerequisite: MUSI 1159 or DRAM 1161. 1 credit hour.

**MUSI 2160 German Diction**

Presents the phonetic sounds of the German language, the principles of which will be applied to required vocal repertoire for transfer music students. Required for voice majors, but open to all students with consent of instructor. 1 credit hour.

**MUSI 2161 French Diction**

Presents the phonetic sounds of the French language, the principles of which will be applied to required vocal repertoire for transfer music majors. Required for voice majors, but open to all students with consent of instructor. 1 credit hour.

**MUSI 2181 Beginning Piano III**

Continuation of MUSI 1182. Development of three octave scales and arpeggios, accompaniment patterns, intermediate and 20th century piano repertoire, advanced sight reading skills. May be repeated for credit. Lab required. Prerequisite: MUSI 1182. 1 credit hour.

**MUSI 2182 Beginning Piano IV**

Final course in Beginning Piano sequence; prepares music majors for piano barrier exams. Culmination of skills including scales and arpeggios four octaves hands together, advanced chord progressions, more difficult piano repertoire, and competency at sight reading. May be repeated for credit. Lab required. Prerequisite: MUSI 2181. 1 credit hour.

**MUSI 2308 Introduction to Music Literature**

Study of selected works in music literature from major periods of music history. Includes musical styles, forms, and composers from the Medieval period to the present. Guided listening experiences are an important part of the course. Required for all music majors. Offered spring semesters. 3 credit hours.

**MUSI 2311 Music Theory III**

Study of music theory from late Renaissance polyphony through Baroque counterpoint and continuing with the chromatic harmonies of the Classic period as found within Sonata Allegro and Rondo formal structures. Related keyboard and aural skills are covered in corequisite classes. Offered fall semesters. Prerequisite: MUSI 1312; Corequisites: MUSI 2116 and 2181. 3 credit hours.

**MUSI 2312 Music Theory IV**

Music theory beginning with the extended harmonies of the Romantic era and continuing through 20th century formal processes and techniques. Related keyboard and aural skills are covered in corequisite classes. Offered spring semesters. Prerequisite: MUSI 2311; Corequisites: MUSI 2117 and 2182. 3 credit hours.

**MUSI 2389 Academic Co-op Music**

An instructional program designed to integrate on-campus study with practical hands-on work experience in music. In conjunction with class seminars, the individual student will set specific goals and objectives in the study of music. Contact the Cooperative Work Experience Office. 3 credit hours.

NOTE: Capstones may be found in each program.



***MUSP 1140 Large Commercial Music Ensemble:  
Jazz Lab Band***

Participation in a large band concentrating on commercial music performance styles. Consisting of 16-21 instrumentalists and one vocalist, the band performs both traditional and contemporary jazz literature. A number of performances both on and off campus are given each semester (including some travel). May be repeated for credit. Prerequisite: Audition. 1 credit hour.

***MUSP 1150 Small Commercial Music Ensemble:  
Jazz Combo***

Participation in a jazz ensemble concentrating on commercial music performance styles. Ensemble consists of 4-9 members. Repertoire includes both instrumental and vocal music typical of small jazz groups. A number of performances both on and off campus are given each semester (including some travel). May be repeated for credit. Prerequisite: Audition. 1 credit hour.

***MUSP 1151 Small Commercial Music Ensemble:  
Recording***

Participation in a small recording ensemble concentrating on commercial music performance styles. Several recording sessions with audio engineering, songwriting, and composition classes each semester. May be repeated for credit. Prerequisite: Audition. 1 credit hour.

***MUSP 2107 Commercial Vocal Ensemble:  
Expressions Jazz***

Participation in a vocal ensemble concentrating on commercial vocal jazz performance styles. This select ensemble of 12-16 singers and rhythm section has several performances each semester plus an annual tour. May be repeated for credit. Prerequisite: Audition. 1 credit hour.

O

***OSHT 2401 OSHA Regulations - General Industry***

A study of Occupational Safety and Health Administration (OSHA) regulations pertinent to general industry. 4 credit hours.

P

**PHED 1100 Beginning Weight Training**

Introduction to weight training and body building; learn the basic techniques for strength development and cardiovascular conditioning. Various weight machines, free weights, and aerobic machines are used to establish an individual fitness program. 1 credit hour.

**PHED 1102 Intermediate Weight Training**

Designed for the individual who has experience in basic weight training skills and wants to increase their knowledge of training techniques and conditioning. Prerequisite: PHED 1100 or consent of instructor. 1 credit hour.

**PHED 1103 Advanced Weight Training**

Focuses on the advanced techniques such as powerlifting and Olympic style lifting. Includes the clean and jerk, snatch, and squats, and the skill exercises necessary to accomplish these lifts. Prerequisite: PHED 1102 or consent of instructor. 1 credit hour.

**PHED 1104 Beginning Jogging and Fitness**

Develops cardiovascular endurance, flexibility, and strength through jogging, stretching, and weight training. Physical fitness assessment leads to development of an individual fitness program. 1 credit hour.

**PHED 1105 Intermediate Jogging and Fitness**

An accelerated fitness program structured for further improvement in cardiovascular endurance, flexibility, and strength. Prerequisite: PHED 1104 or consent of instructor. 1 credit hour.

**PHED 1106 Walking and Fitness**

Improve cardiovascular fitness, muscle tone, and flexibility through a vigorous walking and conditioning program. 1 credit hour.

**PHED 1107 Cycling**

Introduction to cycling; learn basic techniques of bicycling and improve cardiovascular conditioning. Students are required to have their own bicycle. 1 credit hour.

**PHED 1108 Cross Training I**

Extensive course offering training techniques and strategies for multi-sport aerobic activities. Involves running, cycling, swimming, and weight training. Students are required to have their own bicycle. Recommended Corequisite: PHED 1109. 1 credit hour.

**PHED 1109 Cross Training II**

Advanced training techniques and strategies for multi-sport aerobic activities. Involves running, cycling, swimming, and weight training. Students are required to have their own bicycle. Recommended Corequisite: PHED 1108. 1 credit hour.

**PHED 1111 Basketball**

Develops basic skills and strategies through knowledge of the history, rules, and terminology and through participation in game situations. 1 credit hour.

**PHED 1112 Soccer**

Develops the basic skills and strategies through knowledge of the history, rules, and terminology and through participation in game situations. 1 credit hour.

**PHED 1113 Softball**

Fundamental skills of throwing, batting, fielding, and base running as well as knowledge of the rules and terminology and participation in game situations. 1 credit hour.

**PHED 1114 Volleyball**

Individual skills and techniques, application of rules, and an introduction to offensive and defensive strategies are stressed. 1 credit hour.

**PHED 1115 Archery**

Investigates the basic techniques, rules, and scoring as well as the history and terminology of archery. 1 credit hour.

**PHED 1116 Badminton**

History, rules, basic strokes, and strategies in singles and doubles play are emphasized through intraclass competition. 1 credit hour.

**PHED 1117 Beginning Tennis**

Stresses rules, scoring, and fundamental techniques for beginners. Participation by skill level for singles and doubles play is made to ensure vigorous activity for cardiovascular fitness. 1 credit hour.

**PHED 1118 Intermediate Tennis**

Develops and improves each skill level in serving, forehand and backhand drives, lobs, and volleys. Performance strategies for both singles and doubles are drilled. Prerequisite: PHED 1117 or consent of instructor. 1 credit hour.

**PHED 1119 Advanced Tennis**

Emphasizes advanced techniques and strategies for the competitive tennis player. Provides theory and practice drills for advanced players who ultimately compete in singles and doubles tournaments. Prerequisite: PHED 1118 or consent of instructor. 1 credit hour.

**PHED 1120 Beginning Racquetball**

Instruction in rules and basic skills; develops the fundamental techniques of court play for beginners. Participation by skill level assures vigorous activity for cardiovascular fitness. 1 credit hour.

**PHED 1121 Intermediate Racquetball**

Drills in serving, 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**

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**

Stresses basic skills, history, terminology, and scoring of golf. 1 credit hour.

**PHED 1124 Intermediate Golf**

Develops advanced skill techniques and strategies of golf. Prerequisite: PHED 1123 or consent of instructor. 1 credit hour.

**PHED 1125 Bowling**

Teaches ball selection, stance, four step approach, rules, and scoring procedures. Emphasis on game situations. 1 credit hour.

**PHED 1126 Self Defense**

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**

Introduction to basic techniques, formal exercises, and sparring techniques for the beginner. 1 credit hour.

**PHED 1128 Intermediate Karate**

Intermediate skills and techniques of karate. Prerequisite: PHED 1127 or consent of instructor. 1 credit hour.

**PHED 1129 Introduction to Hatha Yoga**

Practice of yogic postures, or "asana", defined as the physical positioning that coordinates breathing with moving and holding still for the purpose of both stretching and strengthening parts of the body. 1 credit hour.

**PHED 1130 Intermediate Hatha Yoga**

The refinement of the asanas (postures) covered in PHED 1129, with emphasis on breath work. Introduces more advanced asanas; emphasis on integrating yoga into daily routines at home and work. Prerequisite: PHED 1129. 1 credit hour.

**PHED 1131 Beginning Swimming**

Non-swimmers and beginners are taught basic swimming skills and strokes. Emphasizes personal safety skills and confidence in the water. 1 credit hour.

NOTE: Capstones may be found in each program.

**PHED 1132 Intermediate Swimming**

Includes further stroke development in front and back crawl, side stroke, breast stroke, diving, and some competitive swimming techniques. Development of cardiovascular endurance is stressed through lap swimming. Prerequisite: PHED 1131 or consent of instructor. 1 credit hour.

**PHED 1135 Water Safety Instruction**

Successful completion allows the student to take the standardized test given by the American Red Cross examiners for certification as a water safety instructor. Prerequisite: Must be 17 or older with an American Red Cross Level 4 swimming ability. 1 credit hour.

**PHED 1136 Water Aerobics**

Fitness level is improved through exercises in the water. A non-impact style of exercises that utilizes water resistance for increasing muscular strength, endurance, and cardiovascular fitness. Swimming skills are not necessary. 1 credit hour.

**PHED 1137 Swimming Conditioning**

Fitness level is improved through swimming strokes and water exercises. Different swimming programs enhance muscular strength, endurance, and cardiovascular fitness. Prerequisite: Proficiency in basic swimming. 1 credit hour.

**PHED 1138 Synchronized Swimming**

Basic skills of synchronized swimming including figures, sculling, and conditioning. Develops cardiovascular endurance, strength, and flexibility. 1 credit hour.

**PHED 1140 Beginning Aerobic Dance and Step Training**

Aerobic exercise and step training incorporating light weights. Includes interval training, which adds a new variation to aerobic endurance and flexibility. 1 credit hour.

**PHED 1141 Intermediate Aerobic Dance and Step Training**

Accelerated aerobic exercise incorporating slide, step, kickboxing, hand weights, and floor routines; designed to improve cardiovascular endurance and muscle strength. Prerequisite: PHED 1140 or consent of instructor. 1 credit hour.

**PHED 1145 Horsemanship**

Basic fundamentals of horsemanship; includes history, nature, and care of the horse as well as riding skills in both English and Western disciplines. 1 credit hour.

**PHED 1147 Beginning Aerobic Kickboxing**

Cardiovascular and body conditioning are acquired through the use of karate and martial arts techniques set to music and integrating punching bags. 1 credit hour.

**PHED 1251 Beginning Scuba**

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 test for Professional Association of Diving Instructors (PADI) certification as a basic scuba diver (not a course requirement). Lab required. Prerequisite: Consent of instructor. 2 credit hours.

**PHED 1252 Advanced Scuba**

This course combines advanced scuba techniques and rescue diving. Advanced topics may include underwater navigation, search and recovery, wreck diving, and night diving. Rescue diving includes diver rescue, emergency management, and diving first aid. Prerequisite: PADI open water certification (or equivalent), and permission of advanced scuba instructor. 2 credit hours.

**PHED 1253 Lifeguard Training**

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 the following strokes: back, breast, crawl, and side. 2 credit hours.

**PHED 1301 Foundations of Sport and Physical Activity**

Historical foundations, principles, and philosophical aspects of sport and physical activity are studied. Investigates teacher qualifications, career opportunities, and leaders affecting the discipline in the United States. 3 credit hours.

**PHED 1304 Personal Health**

Acquire the knowledge to improve the quality of one's life, protect yourself from disease, and become an informed consumer. Nutrition, mental health, physical fitness, drugs, and sex education are discussed. 3 credit hours.

**PHED 1306 Safety and First Aid**

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**

Knowledge and practice in officiating volleyball, basketball, and other appropriate sports. Students are expected to officiate tournaments and intramural games. Lab required. 3 credit hours.

**PHED 1338 Concepts of Physical Fitness and Wellness**

Introduces basic concepts of fitness, nutrition, health promotion, and disease prevention. Gain knowledge to make intelligent choices that contribute to a healthy lifestyle. Incorporates both lecture and physical activity laboratories. 3 credit hours.

**PHED 1371 Aerobic Instructor Training**

Development of the skills necessary to improve the level of cardiovascular fitness through effective and safe design of aerobic dance and step training programs in accordance with AFFA and ACE guidelines. Demonstrate the ability to teach the basic principles of fitness and the science of nutrition and to lead/instruct a group fitness class. Lecture topics prepare the student for certification through AFFA and/or ACE. Recommended Prerequisite: CPR certification. 3 credit hours.

**PHED 2140 Advanced Aerobic Dance and Step Training**

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: PHED 1141 or consent of instructor. 1 credit hour.

**PHED 2389 Academic Co-op Physical Education**

Integrates on-campus study with practical hands-on work experience in physical education. In conjunction with class seminars, the student will set specific goals and objectives in the study of physical education. Contact the Cooperative Work Experience Office. 3 credit hours.

**PHIL 1301 Introduction to Philosophy**

Critical and reflective thinking as applied to basic problems of existence and to the meaning of human life. Selective philosophical problems are examined through the views of major philosophers. Includes ancient, medieval, and modern thought. 3 credit hours.

**PHIL 1304 Comparative Religion**

Study of religious traditions: Eastern, Western, ancient, and modern. Emphasis on such topics as the nature of God, religious experience, immortality, and human freedom. 3 credit hours.

**PHIL 2303 Introduction to Logic**

Symbolic and informal logic; emphasis on logical argument, fallacies, inductive and deductive proof, and correct reasoning. 3 credit hours.

**PHIL 2306 Introduction to Ethics**

Traditional theories and problems in the field of moral philosophy. Using seminal works from the history of western philosophical thought, this course examines the meaningfulness of ethical discourse and explores what makes an action right or wrong, good or evil. Includes contemporary issues in light of historical ethics. 3 credit hours.

**PHIL 2307 Introduction to Social and Political Philosophy**

Focuses on the concepts of force, power, and authority as well as on natural rights, justice, education, freedom, and responsibility. 3 credit hours.

**PHIL 2321 Philosophy of Religion**

A critical investigation of important philosophical concerns with respect to religious ideas of faith, such as the existence and nature of God, the problem of evil, and ideas of the sacred and profane. 3 credit hours.

**PHIL 2371 Philosophy of Art/Aesthetics**

Explores the place of art in human life, the transcendent nature of beauty, and the nature of artistic production. Discusses the work of art itself as a product of creativity, imagination, and understanding. 3 credit hours.

**PHYS 1401 General Physics I**

Algebra-based physics course for the science major in areas of biology, medicine, and pharmacy. Includes laws of motion, heat, work and energy, and sound. Lab required. Prerequisite: Two years of high school algebra and trigonometry, or equivalent, recommended. 4 credit hours.

**PHYS 1402 General Physics II**

A continuation of Physics 1401. Includes electricity, magnetism, light, optics, relativity, and atomic physics. Lab required. Prerequisite: PHYS 1401. 4 credit hours.

**PHYS 1405 Conceptual Physics**

This course is a non-mathematical presentation of the elements of classical and modern physics. Emphasizes the understanding of concepts rather than the development of computational skills. There are no math or science prerequisites. What you should bring to this course is curiosity about how the world works. Intended for liberal arts and other non-science majors. Lab required. 4 credit hours.

**PHYS 1411 Elementary Astronomy**

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

NOTE: Capstones may be found in each program.



along with stellar evolution, supernova, black holes, neutron stars, comets pulsars, and galaxies. Laboratory exercises, night observations, and planetarium and observatory visits combine to enhance lecture material. Lab required. Prerequisite: MATH 0305 or equivalent. 4 credit hours.

#### **PHYS 1415 Physical Science I**

A unique, fascinating approach to physical science for liberal arts majors and pre-service elementary teachers. Investigations of everyday phenomena of the physical world, which helps students to achieve a well-grounded understanding of selected science concepts as well as the skills that enable and encourage rational independent thinking. Lab required. Prerequisite: MATH 0305 or equivalent. 4 credit hours.

#### **PHYS 2389 Academic Co-op Physics**

Integrates on-campus study with practical hands-on work experience in physics. In conjunction with class seminars, the student will set specific goals and objectives in the study of physics. Contact the Cooperative Work Experience Office. 3 credit hours.

#### **PHYS 2425 University Physics I**

A calculus-based analysis of classical physics for science majors in fields such as physics, computer science, and engineering. Includes laws of motion, force, momentum, work and energy, angular momentum, and rotational and oscillatory motion. Lab required. Prerequisite: MATH 2413; Corequisite: MATH 2414. 4 credit hours.

#### **PHYS 2426 University Physics II**

Addresses electric fields, AC and DC currents, dielectrics, magnetic fields, magnetic properties of matter, inductance, electromagnetism, properties of waves, and optics. Lab required. Prerequisite: PHYS 2425. 4 credit hours.

#### ***POFI 1301 Computer Applications I - WordPerfect 9***

Overview of computer applications including current terminology and technology. Introduction to computer hardware, software applications, and procedures. This course can be repeated for credit as software changes. Prerequisites: Keyboarding and computer skills. 3 credit hours.

#### ***POFI 2301 Word Processing - MS Word 2000***

Instruction in the various aspects of a word processing software package. Emphasis on the use of text editing features to produce business documents. This course can be repeated for credit as software changes. Prerequisites: Keyboarding and computer skills. 3 credit hours.

#### ***POFI 2331 Desktop Publishing for the Office - MS Word 2000 and PowerPoint 2000***

In-depth coverage of desktop publishing terminology, text editing, and use of design principles to create publishing material using word processing desktop publishing features. Emphasis on layout techniques, graphics, and multiple page displays. This course can be repeated for credit as software changes. Prerequisite: ITSC 1309. 3 credit hours.

#### ***POFL 1359 Legal Transcription***

Skill development in comprehensive vocabulary, listening, organizing, and transcribing client-quality documents used in a legal office. Prerequisite: POFI 1301 or 2301, or POFT 2301. 3 credit hours.

#### ***POFL 1380 Cooperative Education - Legal Administrative Assistant/Secretary***

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

#### ***POFL 2301 Legal Document Processing***

Skill development in the production of legal documents used in the legal and court systems. Prerequisite: POFI 1301 or 2301, or POFT 2301. 3 credit hours.

#### ***POFM 1321 Medical Law and Ethics for Office Personnel***

Instruction in the principles, procedures, and regulations governing the legal and ethical relationships among physicians, patients, and health care professionals. Topics include current ethical issues related to the practice of medicine and patient confidentiality. Special emphasis on the medical record and the role of the medical transcriptionist. 3 credit hours.

#### ***POFM 1331 Medical Transcription I***

Fundamentals of medical transcription including basic reports such as history and physicals, discharge summaries, consultations, operative reports, and other medical reports. Emphasis on development of speed and accuracy. Prerequisite/Corequisite: POFI 1301 or 2301, and SRGT 1301. 3 credit hours.

**POFM 1353 Medical Coding**

Presentation and application of basic coding rules, principles, guidelines, and conventions utilizing various coding systems. Prerequisite: SRGT 1301. 3 credit hours.

**POFM 1380 Cooperative Education - Medical Administrative Assistant/Secretary**

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

**POFM 2313 Medical Transcription II**

Skill development in the production of medical reports including history and physicals, consultations, discharge summaries, operative reports, and other medical reports. Emphasis on speed and accuracy. Prerequisites: POFI 1301 and POFM 1331. 3 credit hours.

**POFM 2317 Medical Transcription III**

Further skill development in the production of advanced reports including history and physicals, consultations, discharge summaries, operative reports, and other medical reports. Emphasis on increasing speed and accuracy. Prerequisites: POFM 2313, and POFT 1377 and 2203. 3 credit hours.

**POFM 2323 Medical Terminology II**

A continuation of SRGT 1301 including structure; recognition; analysis; definitions; spelling; pronunciation; and combination of medical terms from prefixes, suffixes, roots, and combining forms. Emphasis on various medical specialty fields. Includes use of a variety of resources to locate and understand advanced terms. Prerequisite: SRGT 1301. 3 credit hours.

**POFM 2333 Medical Document Production**

Study of advanced concepts of medical office activities, practices, and procedures. Topics include advanced medical reports, transcription, coding, billing, insurance activities, and records management. Prerequisites: POFI 1301, POFT 1377 and 2203, and SRGT 1301. 3 credit hours.

**POFT 1127 Introduction to Keyboarding**

Skill development in keyboarding with emphasis on alphabet, number, and symbol keys by touch. Skills can be applied to computers, typewriters, and other equipment with keyboards. 1 credit hour.

**POFT 1302 Business Communications I**

Introduction to a practical application of basic language usage skills with emphasis on fundamentals of writing and editing for business. 3 credit hours.

**POFT 1319 Records and Information Management I**

Introduction to basic records and information management. Includes the life cycle of a record, manual and electronic records management, and basic filing procedures and rules. 3 credit hours.

**POFT 1329 Keyboarding and Document Formatting**

Skill development in the operation of the keyboard by touch applying proper keyboarding techniques. Emphasis on development of acceptable speed and accuracy levels and formatting basic documents. Beginning course for students with no previous typing/keyboarding instruction. 3 credit hours.

**POFT 1349 Administrative Office Procedures II (Capstone)**

Advanced office application with special emphasis on decision making, goal setting, management theories, and critical thinking. Varied aspects of office routines with additional emphasis on time management, mail responsibilities, telephone techniques, communication, job application and interviewing, ethics, office etiquette, and other topics associated with office technology. 3 credit hours.

**POFT 1377 Proofreading and Editing**

Instruction in proofreading and editing skills necessary to assure accuracy in written documents and business correspondence. 3 credit hours.

**POFT 1380 Cooperative Education - Administrative Assistant/Secretarial Science, General**

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

**POFT 2203 Speed and Accuracy Building**

Review, correct, improve, and/or perfect touch-keyboarding techniques for the purpose of increasing speed and improving accuracy. May be repeated for credit until desired proficiency is achieved. 2 credit hours.

NOTE: Capstones may be found in each program.

**POFT 2301 Document Formatting and Skillbuilding**

A continuation of keyboarding skills in document formatting, speed, and accuracy. Emphasis on proofreading, editing, and following instructions, and keying documents from various copy. Prerequisite: POFT 1329 or consent of program coordinator. 3 credit hours.

**POFT 2321 Machine Transcription**

Skill development in mailable business document production using computers and dictation equipment. Skill refinement in grammar and punctuation with emphasis on proofreading and formatting. Prerequisite: POFI 1301 or 2301, or POFT 2301. 3 credit hours.

**POFT 2333 Advanced Document Formatting and Skillbuilding**

Study of advanced concepts in a variety of office-simulated correspondence activities with emphasis on organization, prioritizing, decision making, composition, placement, accuracy, and speed development. Prerequisites: POFI 1301 or 2301, and POFT 2301. 3 credit hours.

**POFT 2380 Cooperative Education - Administrative Assistant/Secretarial Science, General**

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

**PSTR 1301 Fundamentals of Baking**

Fundamentals of baking including dough, quick breads, pies, cakes, cookies, tarts, and doughnuts. Instruction in flours, fillings, and ingredients. Topics include baking terminology, tool and equipment use, formula conversions, functions of ingredients, and the use of proper flours. Professional chef uniform and supplementary tools required. Lab included. 3 credit hours.

**PSYC 2301 General Psychology**

Introduction to scientific psychology as applied to human behavior, including research methods, physiological factors, learning, motivation, emotions, personality, adjustment, stress, psychological disorders, and therapies. These principles will be applied to the human experience. Lab required. 3 credit hours.

**PSYC 2302 Applied Psychology**

Application of psychological principles to human relations issues in organizational settings. Emphasis on self-understanding, inter-personal relations, and career development. Lab required. 3 credit hours.

**PSYC 2306 Human Sexuality**

Understanding of human sexuality; includes an appreciation of different approaches to sexuality as well as an awareness of one's own sexuality and its impact on adjustment to life. 3 credit hours.

*NOTE: Students may register for this course as PSYC 2306 or SOCI 2306, but not for both.*

**PSYC 2314 Life Span Psychology**

A life span approach to human development; studies the processes of life from conception through adulthood and aging. Includes physical, cognitive, and psychosocial aspects of human growth, development, and behavior. These principles will be applied to daily lifestyles. Prerequisite: PSYC 2301. 3 credit hours.

**PSYC 2315 Psychology of Adjustment**

Gives students deeper insight into their lives and those around them. Includes enhancing self awareness, stress coping, healthy relationships, and dealing with loss. 3 credit hours.

**PSYC 2316 Psychology of Personality**

In-depth study of theories of personality with practical application of each. Methods of personality measurement and assessment are also included. Prerequisite: PSYC 2301. 3 credit hours.

**PSYC 2319 Social Psychology**

Research and theory regarding social factors that influence human behavior. Focuses on attitudes, interpersonal attraction, aggression, conformity, communication, values, roles, and group processes. These principles will be applied to the human experience. Prerequisite: PSYC 2301 or SOCI 1301. 3 credit hours.

**PSYC 2340 Selected Topics in Psychology**

In-depth study of selected topics on current issues in psychology. May be repeated for credit as topics change. 3 credit hours.

**Abnormal Psychology**

Study of abnormal behavior with focus on the causes, assessment, and treatment of maladaptive behavior. Prerequisite: PSYC 2301.

**Death and Dying**

Explores social, emotional, and cognitive processes involved in our understanding and acceptance of death and dying from a cross-cultural perspective.

*NOTE: Students may register for this course as PSYC 2340 or SOCI 2371, but not for both.*

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### **Individual Counseling**

Interviewing, history-taking, care-giving, listening, intervention, and interpretation skills. Prerequisite: PSYC 2301 or SOCI 1301.

### **Survey of Eating Disorders**

History, dynamics, prevalence, symptoms, and treatment approaches to eating disorders.

### **PSYC 2370 Drug Use and Abuse**

A view of the individual, the substance, and the cultural context in which they interact. Provides a basic understanding of the psychopharmacology of drugs used and abused in today's society. Emphasis on the major perspectives of drug use including legal, moral, public health, disease model, psycho-social, and socio-cultural. 3 credit hours.

### **PSYC 2389 Academic Co-op Psychology**

Integrates on-campus study with practical hands-on work experience in psychology. In conjunction with class seminars, the student will set specific goals and objectives in the study of psychology. Contact the Cooperative Work Experience Office. 3 credit hours.

### **PTHA 1201 The Profession of Physical Therapy**

Introduction to the profession of physical therapy including the historical and current scope of physical therapy. Prerequisite: Admission to program or departmental approval. 2 credit hours.

### **PTHA 1266 Practicum I - Physical Therapist Assistant**

Practical general training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be paid or unpaid. This course may be repeated if topics and learning outcomes vary. Lab required. Prerequisites: PTHA 1431, 2201, 2205, and 2409. 2 credit hours.

### **PTHA 1305 Basic Patient Care Skills**

Introduction to the theory and application of basic patient handling/functional skills and assessment and measurement techniques. Lab required. Prerequisite: Admission to the program or departmental approval. 3 credit hours.

### **PTHA 1321 Clinical Pathophysiology**

Study of the pathogenesis, prognosis, and therapeutic management of diseases/conditions commonly encountered in physical therapy. Prerequisites: BIOL 2401 and 2402. 3 credit hours.

### **PTHA 1413 Functional Anatomy**

Study of human anatomy and its application to the motion of the musculoskeletal system as it relates to normal activities

and dysfunctions. Integration of skills related to the kinesiological assessment and measurement of the human body. Lab required. Prerequisites: BIOL 2401 and 2402, and MATH 1314. 4 credit hours.

### **PTHA 1431 Physical Agents**

Study of the biophysical principles, assessment, and application of therapeutic physical agents and therapeutic massage with specific emphasis on indications, contraindications, medical efficacy, and physiological effects. Lab required. Prerequisites: PTHA 1201, 1305, and 1321; Corequisite: PTHA 2201. 4 credit hours.

### **PTHA 2201 Assessment and Measurement Skills**

Study of assessment and measurement techniques used in physical therapy to prepare the physical assistant to assist in patient management. Lab required. Prerequisites: PTHA 1201, 1305, and 1321; Corequisites: PTHA 1413, 1431, and 2205. 2 credit hours.

### **PTHA 2205 Clinical Neurology**

Study of neuroanatomy and neurophysiology as it relates to commonly encountered neurological conditions. Prerequisites: PTHA 1201 and 1321; Corequisite: PTHA 2201. 2 credit hours.

### **PTHA 2239 Professional Issues**

A capstone course which engages the student in the discussion of professional issues and behaviors related to clinical practice and which prepares the student for transition into the workforce. Corequisites: PTHA 2266 and 2267. 2 credit hours.

### **PTHA 2266 Practicum II - Physical Therapist Assistant**

Practical general training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be paid or unpaid. This course may be repeated if topics and learning outcomes vary. Lab required. Prerequisites: PTHA 2431 and 2435; Corequisite: PTHA 2239. 2 credit hours.

### **PTHA 2267 Practicum III - Physical Therapist Assistant**

Practical general training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be paid or unpaid. This course may be repeated if topics and learning outcomes vary. Lab required. Prerequisites: PTHA 2266, 2431, and 2435; Corequisite: PTHA 2239. 2 credit hours.

NOTE: Capstones may be found in each program.



**PTHA 2409 Therapeutic Exercise**

Critical examination of concepts and application of techniques related to therapeutic exercise and functional training. Lab required. Prerequisites: PTHA 1201, 1305, and 1321; Corequisite: PTHA 2201. 4 credit hours.

**PTHA 2431 Management of Neurological Disorders**

Advanced course integrating previously learned and new skills/techniques into the comprehensive rehabilitation of selected neurological disorders. Lab required. Prerequisites: PTHA 1266, 2201, 2205, and 2409. 4 credit hours.

**PTHA 2435 Rehabilitation Techniques**

Advanced course integrating previously learned and new skills/techniques into the comprehensive rehabilitation of selected long-term pathologies. Lab required. Prerequisites: PTHA 1266, 2201, and 2409. 4 credit hours.

## Q

**QCTC 1303 Quality Control**

Information on quality control principles and applications. Designed to introduce the student to the quality control profession. 3 credit hours.

## R

**READ 0300 Developmental Reading I**

Raises the reading level of students through the acquisition of basic vocabulary and comprehension skills. *May not be used to satisfy the requirements of an associate degree.* Lab included. Prerequisite: Assessment. 3 credit hours.

**READ 0305 Developmental Reading II**

Offers additional instruction in developing vocabulary and comprehension skills. Effective study skills are introduced. *May not be used to satisfy the requirements of an associate degree.* Lab included. Prerequisite: READ 0300 or assessment. 3 credit hours.

**READ 0310 Developmental Reading III**

Seeks to further improve students' vocabulary, comprehension, and study skills. *May not be used to satisfy the requirements of an associate degree.* Lab included. Prerequisite: READ 0305 or assessment. 3 credit hours.

**READ 1300 Analytical Reading and Critical Thinking**

Inquiry to improve comprehension in non-fiction material. Emphasizes development of interpretive comprehension skills and expansion of these skills into higher level analysis, synthesis, and evaluative processes. Lab included. Prerequisite: Assessment. 3 credit hours.

**RELE 1105 Uniform Standards of Professional Appraisal Practice**

Provides instruction on current provisions of the Uniform Standards of Professional Appraisal Practice (USPAP). 1 credit hour.

**RELE 1301 Principles of Real Estate I**

An overview of licensing as a real estate broker and salesperson, ethics of practice, titles to and conveyancing of real estate, legal descriptions, law of agency, deeds, encumbrances and liens, distinctions between personal and real property, contracts, appraisal, finance and regulations, closing procedures, and real estate mathematics. Also includes federal, state, and local laws relating to housing discrimination, housing credit discrimination, and community reinvestment. 3 credit hours.

**RELE 1303 Real Estate Appraisal**

A study of 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. 3 credit hours.

**RELE 1307 Real Estate Investment**

Financing, evaluation, and management of real estate investment. Emphasis on real estate investment characteristics, techniques of investment analysis, time-valued money, discounted investment criteria, leverage, and applications to property tax implications of owning real estate. 3 credit hours.

**RELE 1309 Real Estate Law**

Provides a study of legal concepts of real estate, land description, real property rights, estates in land, contracts, conveyances, encumbrances, foreclosures, recording procedures, and evidence of title. 3 credit hours.

**RELE 1311 Real Estate Law of Contracts**

Includes the elements of a contract, offer and acceptance, the statute of frauds, specific performance and remedies for breach, unauthorized practice of law, commission rules relating to use of adopted forms and owner disclosure requirements. 3 credit hours.

**RELE 1315 Property Management**

A study of the role of the property manager, landlord policies, operational guidelines, leases, lease negotiations, tenant relations, maintenance, reports, habitability laws, and the Fair Housing Act. 3 credit hours.

**RELE 1319 Real Estate Finance**

An overview of the U.S. monetary systems, primary and secondary money markets, sources of mortgage loans, federal government programs, loan applications, processes and procedures, closing costs, alternative instruments, laws affecting mortgage lending, and the State Housing Agency. 3 credit hours.

**RELE 1321 Real Estate Marketing**

A study of real estate professionalism and ethics; characteristics of successful salespersons; time management; psychology of marketing; listing procedures; advertising; negotiating and closing financing; and the deceptive trade practice act, consumer protection act, and commercial code. 3 credit hours.

**RELE 1325 Real Estate Mathematics**

Mathematical logic and basic arithmetic skills including percentages interest, time-valued money, depreciation, amortization, proration, and estimation of closing statement. 3 credit hours.

**RELE 1327 Real Estate Commercial Appraisal**

Principles and techniques used in the valuation of commercial property. Topics include purposes and functions of an appraisal, social and economic forces affecting value, appraisal case studies, cost, and income approaches to value. 3 credit hours.

**RELE 1380 Cooperative Education - Real Estate**

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

**RELE 1391 Special Topics in Real Estate**

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. 3 credit hours.

**RELE 2103 Real Estate Mandatory Continuing Education**

Provides mandatory continuing education as required by the Texas Real Estate Commission. Includes updates on the profession and legal topics. 1 credit hour.

**RELE 2301 Law of Agency**

A study of law of agency including principal-agent and master-servant relationships, the authority of an agent, the termination of an agent's authority, the fiduciary and other duties of an agent, employment law, deceptive trade practices, listing or buying procedures, and the disclosure of an agency. 3 credit hours.

**RELE 2309 Principles of Real Estate II**

An overview of licensing as a real estate broker and salesman; ethics of practice; titles to and conveyancing of real estate; legal

descriptions; law of agency; deeds; encumbrances and liens; distinctions between personal and real property; contracts; appraisal; finance and regulations; closing procedures; real estate mathematics; and federal, state, and local laws relating to housing discrimination, housing credit discrimination, and community reinvestment. 3 credit hours.

**RELE 2331 Real Estate Brokerage**

A study of law of agency, planning and organization, operational policies and procedures, recruiting, selection and training of personnel, records and control, and real estate firm analysis and expansion criteria. 3 credit hours.

**RELE 2381 Cooperative Education - Real Estate**

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

**RNSG 1144 Nursing Skills II**

Study of the concepts and principles necessary to perform intermediate or advanced nursing skills; and demonstrate competence in the performance of nursing procedures. Topics include knowledge, judgment, skills, and professional values within a legal/ethical framework. Prerequisite: RNSG 1205 or equivalent; Corequisites: RNSG 2361 and 2404. 1 credit hour.

**RNSG 1205 Nursing Skills I**

Study of the concepts and principles essential for demonstrating competence in the performance of nursing procedures. Topics include knowledge, judgment, skills, and professional values within a legal/ethical framework. Prerequisite: Admission into the A.D.N. Program; Corequisites: RNSG 1360 and 1523. 2 credit hours.

**RNSG 1266 Practicum - Nursing (R. N. Training)**

Practical general training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be paid or unpaid. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 2 credit hours.

NOTE: Capstones may be found in each program.

**RNSG 1347 Concepts of Clinical Decision-Making**

Integration of previous knowledge and skills into the continued development of the associate degree nurse as a provider of care, coordinator of care, and member of a profession emphasizing clinical decision-making knowledge, judgment, skills and professional values within a legal/ethical framework. Areas of focus include musculoskeletal, gastrointestinal disturbances, and pain management. Prerequisites: RNSG 2361 and 2404 or equivalent; Corequisite: RNSG 2161. 3 credit hours.

**RNSG 1360 Clinical I – Nursing (R.N. Training)**

A method of instruction providing detailed education, training work-based experience, and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision, evaluation, and placement is the responsibility of the college faculty. Clinical experiences are unpaid external learning experiences. Clinical experiences take place in adult health care settings with emphasis on fundamental principles of nursing. Course may be repeated if topics and learning outcomes vary. Prerequisite: Admission into the A.D.N. Program; Corequisites: RNSG 1205 and 1523. 3 credit hours.

**RNSG 1523 Introduction to Professional Nursing**

Introduction to the profession of nursing including the roles of the registered nurse with emphasis on the application of a systematic, problem-solving process to provide care to diverse clients across the life span; and including applicable competencies in knowledge, judgment, skills, and professional values within a legal/ethical framework. Prerequisite: Admission into the A.D.N. Program; Corequisites: RNSG 1205 and 1360. 5 credit hours.

**RNSG 2161 Clinical III – Nursing (R.N. Training)**

A method of instruction providing detailed education, training and work-based experience, and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision, evaluation, and placement is the responsibility of the college faculty. Clinical experiences are unpaid external learning experiences. Clinical experiences take place in adult health or pediatric settings. Course may be repeated if topics and learning outcomes vary. Prerequisite: RNSG 2361 and 2404 or equivalent; Corequisite: RNSG 1347. 1 credit hour.

**RNSG 2207 Transition to Nursing Practice (Capstone)**

Introduction to selected concepts related to the role of the associate degree nurse as a provider of care, coordinator of care, and member of the profession. Review of trends and issues impacting nursing and health care today and in the future. Topics include knowledge, judgment, skill, and professional values within a legal/ethical framework. Prerequisite: RNSG 2221; Corequisites: RNSG 2435 and 2463. 2 credit hours.

**RNSG 2221 Management of Client Care**

Exploration of leadership and management principles applicable to the role of the nurse as a provider of care, coordinator of care, and member of a profession. Includes application of knowledge, judgment, skills, and professional values within a legal/ethical framework. Prerequisites: RNSG 1347 and 2161 or equivalent; Corequisites: RNSG 2414 and 2462. 2 credit hours.

**RNSG 2361 Clinical II – Nursing (R.N. Training)**

A method of instruction providing detailed education, training and work-based experience, and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision, evaluation, and placement is the responsibility of the college faculty. Clinical experiences are unpaid external learning experiences. Areas of focus include psychiatric mental health and maternal/child settings. Course may be repeated if topics and learning outcomes vary. Prerequisites: RNSG 1360 and 1523 or equivalent; Corequisites: RNSG 1144 and 2404. 3 credit hours.

**RNSG 2404 Care of the Client with Common Health Care Needs**

Application of a systematic problem-solving process and critical-thinking skills to provide nursing care to diverse clients/families across the life span with common health care needs. Opportunities for collaboration with members of the multidisciplinary health care team. Content includes applicable competencies in knowledge, judgment, skills, and professional values within a legal/ethical framework. Areas of focus include psychiatric mental health, maternal/newborn, and disturbances of the reproductive system. Prerequisites: RNSG 1360 and 1523 or equivalent; Corequisites: RNSG 1144 and 2361. 4 credit hours.

**RNSG 2414 Care of the Client with Complex Health Care Needs**

Application of a systematic problem-solving process and critical-thinking skills to provide nursing care to diverse clients/families across the life span with complex health care needs in health maintenance and health restoration. Opportunities to collaborate with members of the multidisciplinary health care team. Topics include the role of the nurse as client advocate and coordinator of care and applicable competencies in knowledge, judgment, skills, and professional values within a legal/ethical framework. Areas of focus include pediatric and adult clients with disturbances in liver/biliary, renal, cardiovascular, and pulmonary functions. Prerequisites: RNSG 1347 and 2161 or equivalent; Corequisites: RNSG 2221 and 2462. 4 credit hours.

**RNSG 2435 Integrated Client Care Management**

Application of client assessment skills, critical thinking, and independent nursing interventions to care for diverse clients/families throughout the life span whose health care needs may be difficult to predict. Emphasis on collaborative clinical decision-making, nursing leadership skills, and client management. Topics include the significance of professional development, trends in nursing and health care, and applicable knowledge, judgment, skills, and professional values within a legal/ethical framework. Areas of focus include pediatric and adult clients with disturbances in neurological, endocrine, integumentary, and immunological function. Prerequisite: RNSG 2414 and 2462 or equivalent; Corequisites: RNSG 2207 and 2463. 4 credit hours.

**RNSG 2462 Clinical IV - Nursing (R.N. Training)**

A method of instruction providing detailed education, training and work-based experience, and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision, evaluation, and placement is the responsibility of the college faculty. Clinical experiences are unpaid external learning experiences. Areas of focus include pediatrics and/or adult health. Course may be repeated if topics and learning outcomes vary. Prerequisite: RNSG 2161 or equivalent; Corequisites: RNSG 2221 and 2414. 4 credit hours.

**RNSG 2463 Clinical V - Nursing (R.N. Training)**

A method of instruction providing detailed education, training and work-based experience, and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision, evaluation, and placement is the responsibility of the college faculty. Clinical experiences are unpaid external learning experiences. Areas of focus include pediatrics and/or adult health. Course may be repeated if topics and learning outcomes vary. Prerequisite: RNSG 2462 or equivalent; Corequisites: RNSG 2207 and 2435. 4 credit hours.

**RSPT 1160 Clinical I - Respiratory Therapy Technician**

A method of instruction providing detailed education, training and work-based experience, and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision, evaluation, and placement are the responsibility of the college faculty. Clinical experiences are unpaid external learning experiences. Course may be repeated if topics and learning outcomes vary. 1 credit hour.

**RSPT 1201 Introduction to Respiratory Care**

An introduction to the field of respiratory care. Topics include the history of respiratory care, hospital organization, medical malpractice, ethics, vital signs, body mechanics, basic cardiopulmonary assessment, infection control, and cardiopulmonary resuscitation (CPR). Includes instruction in medical terminology. Lab required. 2 credit hours.

**RSPT 1307 Cardiopulmonary Anatomy and Physiology**

An introduction to the anatomy and physiology of the cardiovascular, renal, and pulmonary systems. Includes the terminology used in respiratory physiology. Lab required. 3 credit hours.

**RSPT 1317 Respiratory Care Pharmacology**

A study of pharmacological principles/practices of drugs which affect the cardiopulmonary systems. Emphasis on classification, route of administration, dosages/calculations, and interaction of the autonomic nervous system. Prerequisite: RSPT 1201. 3 credit hours.

**RSPT 1361 Clinical II - Respiratory Therapy Technician**

A method of instruction providing detailed education, training and work-based experience, and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision, evaluation, and placement are the responsibility of the college faculty. Clinical experiences are unpaid external learning experiences. Course may be repeated if topics and learning outcomes vary. Prerequisite: RSPT 1160. 3 credit hours.

**RSPT 1362 Clinical III - Respiratory Therapy Technician**

A method of instruction providing detailed education, training and work-based experience, and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision, evaluation, and placement are the responsibility of the college faculty. Clinical experiences are unpaid external learning experiences. Course may be repeated if topics and learning outcomes vary. Prerequisite: RSPT 1361. 3 credit hours.

**RSPT 1410 Respiratory Care Procedures I**

Provides students with the essential knowledge of the equipment and techniques used in the treatment of pulmonary disease and their clinical application. The following areas are discussed in-depth: oxygen therapy, humidity and aerosol therapy, hyperinflation therapy, CPT, pulse oximetry, arterial puncture, and interpretation. Lab required. 4 credit hours.



**RSPT 1411 Respiratory Care Procedures II**

Provides student with essential knowledge of airway care and mechanical ventilation. Airway care includes indications, techniques, equipment, and hazards and complications. Mechanical ventilation includes indications, initiation, modes, clinical application, management, complications, and weaning. Lab required. Prerequisite: RSPT 1410. 4 credit hours.

**RSPT 1471 Respiratory Care Procedures III**

An introduction to ECG monitoring, neonatal assessment, and infant mechanical ventilation. This course will include material on specialized modes of ventilation chest drainage systems, critical care assessment, and chest trauma. Lab required. Prerequisite: RSPT 1411. 4 credit hours.

**RSPT 2139 Advanced Cardiac Life Support**

A comprehensive course designed to develop the cognitive and psychomotor skills necessary for resuscitation of the adult. Strategies for managing and stabilizing the cardiopulmonary arrested patient will be included. Prerequisite: Knowledge of cardiac rhythms and consent of program coordinator. Lab required. 1 credit hour.

**RSPT 2231 Clinical Simulations in Respiratory Care**

The theory and history of clinical simulation examinations. Topics include the construction types, scoring, and mechanics of taking the exam along with practice in taking both written and computerized simulations and basic concepts of computer usage. Discusses the various pathologies that are likely to be encountered on a clinical simulation exam. Lab required. Prerequisite: RSPT 2355. 2 credit hours.

**RSPT 2247 Specialties in Respiratory Care**

An introduction to areas of interest in which the Respiratory Therapist may find application and/or employment. The depth of instruction will provide the indications, expected outcomes, hazards and methods for hyperbaric oxygen (HBO), extracorporeal membrane oxygenation (ECMO), nitric oxide (NO), sleep studies, nutritional assessment, metabolic monitoring, exercise/stress testing, and electroencephalograms. Also includes home care/rehabilitation, and fluid and electrolyte balance. Prerequisite: RSPT 2453. 2 credit hours.

**RSPT 2310 Cardiopulmonary Disease**

A discussion of pathogenesis, pathology, diagnosis, history, prognosis, manifestations, treatment, and detection of cardiopulmonary diseases. Also includes the performance and evaluation of pulmonary function testing. Lab required. Prerequisite: RSPT 1307. 3 credit hours.

**RSPT 2355 Critical Care Monitoring**

Introduction to monitoring techniques used clinically to assess a patient in the critical care setting. Prerequisite: RSPT 1471. 3 credit hours.

**RSPT 2360 Clinical IV - Respiratory Therapy Technician**

A method of instruction providing detailed education, training and work-based experience, and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision, evaluation, and placement are the responsibility of the college faculty. Clinical experiences are unpaid external learning experiences. Course may be repeated if topics and learning outcomes vary. Prerequisite: RSPT 1362. 3 credit hours.

**RSPT 2361 Clinical V - Respiratory Therapy Technician (Capstone)**

A method of instruction providing detailed education, training and work-based experience, and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision, evaluation, and placement are the responsibility of the college faculty. Clinical experiences are unpaid external learning experiences. Course may be repeated if topics and learning outcomes vary. Prerequisite: RSPT 2360. 3 credit hours.

**RSPT 2453 Neonatal/Pediatric Cardiopulmonary Care**

A study of acute care, monitoring, and management as applied to the neonatal and pediatric patient. Includes an in-depth discussion on the cardiopulmonary diseases that affect the neonatal and pediatric patient. Lab required. Prerequisite: RSPT 1471. 4 credit hours.

**RSTO 1380 Cooperative Education - Food and Beverage/Restaurant Operations Manager (Capstone)**

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

**RSTO 2405 Management of Food Production and Service**

A study of quantity cookery and management problems pertaining to commercial and institutional food service, merchandising and variety in menu planning, and customer food preferences. Includes laboratory experiences in quantity food preparation and service. Professional chef uniform and kitchen tools required. Lab included. 4 credit hours.

### **RUSS 1411 Beginning Russian I**

Introduction to the basic skills of speaking, reading, writing, and listening with attention to selected aspects of Russian culture; designed for students with little or no previous language training. Instruction is enhanced by the use of tapes, slides, computer software, and video cassettes. 4 credit hours.

### **RUSS 1412 Beginning Russian II**

Continuation of Russian 1411. Prerequisite: RUSS 1411 or equivalent. 4 credit hours.

### **RUSS 2311 Intermediate Russian I**

Intensive review of Russian grammar followed by continued development of speaking, listening, reading, and writing skills. Instruction enhanced by slides, tapes, and other audio-visual aids. Prerequisite: RUSS 1412 or equivalent. 3 credit hours.

### **RUSS 2312 Intermediate Russian II**

Continuation of RUSS 2311. Instruction enhanced by slides, tapes, and other audio-visual aids. Prerequisite: RUSS 2311 or equivalent. 3 credit hours.

## **S**

### **SGNL 1401 American Sign Language (ASL): Beginning I**

Introduction to American Sign Language, Deaf culture, and to a brief history of sign and culture. Includes development of expressive and receptive sign skills, together with the learning of numbers, sign vocabulary, and the manual alphabet. Class is conducted primarily without voice. Lab required. 4 credit hours.

### **SGNL 1402 American Sign Language (ASL): Beginning II**

Study of sign vocabulary, numbers, fingerspelling, and Deaf culture. Emphasizes further development of receptive skills, expressive skills, application of rudimentary syntactical and grammatical structures, and an understanding of Deaf and Hearing cultures. Class is conducted primarily without voice. Lab required. Prerequisite: SGNL 1401 or credit by exam. 4 credit hours.

### **SGNL 2401 American Sign Language (ASL): Intermediate I**

Includes the integration of ASL expressive and receptive skills using bilingual techniques. Also includes a study of vocabulary, idioms, culture, ASL linguistics, manual and non-manual aspects of ASL, and cross-cultural communication techniques. Highly interactive, centering on lab exercises, peer critiques, guest lectures, and on the application of basic ethical behavior. Class is conducted primarily without voice. Lab required. Prerequisite: SGNL 1402 or credit by exam. 4 credit hours.

### **SGNL 2402 American Sign Language (ASL): Intermediate II**

Continuation of SGNL 2401; further application of introductory level interpreting and transliterating skills with appropriate RID guidelines governing ethical behavior. Provides students the opportunity to interpret for guest speakers. Class is conducted primarily without voice. Lab required. Prerequisite: SGNL 2401 or credit by exam. 4 credit hours.

### **SLNG 1321 Introduction to the Interpreting Profession**

An overview of the field of sign language interpretation. Provides an historical framework for the principles, ethics, roles, responsibilities, and standard practices of the interpreting profession. Lab required. Prerequisite/Corequisite: SGNL 2402. 3 credit hours.

### **SLNG 1371 Expressive and Receptive Fingerspelling and Numbers**

Develops expressive and receptive fingerspelling skills. Receptive skills focus on whole word and phrase recognition as well as reading fingerspelling in context. Expressive skills focus on the development of speed, clarity, and fluency. Through classroom and lab experience, this course will focus on the 26 hand configurations of the manual alphabet, numbers, and Lexicalized Fingerspelling. Additional receptive and expressive skill building for students to recognize: states, cities, cardinal numbers, ordinal numbers, transitional handshapes, fractions, mathematical functions, monetary designations, time, age, and counting; and proper formation, placement, positioning, rhythm, transitional fingerspelling handshapes, and related fingerspelling theories and methodologies. This course is conducted primarily without voice. Lab required. Prerequisite/Corequisite: SGNL 1402. 3 credit hours.

### **SLNG 1391 Special Topics in Sign Language Interpreting**

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. Lab required. Prerequisite: SLNG 2301 or BEI-Level I. 3 credit hours.

### **Sign Language Interpreting**

This course addresses interpreting specializations, including: Medical Interpreting, Mental Health Interpreting, Legal Interpreting, Educational Interpreting, Religious Interpreting, Theatrical Interpreting, Community-based Interpreting, Oral Interpreting, and Deaf-Blind Interpreting.

NOTE: Capstones may be found in each program.

**SLNG 1447 Deaf Culture**

*Formerly SLNG 1347*

Provides a historical and contemporary perspective of American deaf culture using a sociocultural model. Includes cultural identity, values, group norms, communication, language, and significant contributions made by deaf people to the world. 4 credit hours.

**SLNG 2266 Practicum I – Sign Language Interpreter**

Practical general training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be paid or unpaid. This course may be repeated if topics and learning outcomes vary. Prerequisite: SLNG 2301 and acceptance into the IPPD Associate of Applied Science degree program. 2 credit hours.

**SLNG 2267 Practicum II – Sign Language Interpreter**

Practical general training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be paid or unpaid. This course may be repeated if topics and learning outcomes vary. Prerequisites: SLNG 2266 and SLNG 2311 or 2378. 2 credit hours.

**SLNG 2301 Interpreting I**

An overview of the interpreting process and current models. Introduces the skills necessary to achieve message equivalency in interpreting. Lab required. Prerequisites: SLNG 1321 and Acceptance into the IPPD Associate of Applied Science degree program. 3 credit hours.

**SLNG 2311 Specialized Interpreting/Transliterating**

A focus on interpreting/transliterating with special populations (e.g., deaf/blind, high visual, oral) in special settings (e.g., religious, artistic, medical, legal, mental health). Reinforces basic theories and techniques in relation to the special population(s) and/or setting(s). Lab required. Prerequisite: SLNG 2301 and acceptance into the IPPD Associate of Applied Science degree program. 3 credit hours.

**SLNG 2378 Sign to Voice**

The course objective is to develop voicing skills with a focus on word selection, register, receptive skills, proper location of voice interpreters, team interpreting, the use of a CDI, and other aspects of voicing. Special requirements of voice interpreting will also be included such as methods and techniques of voicing for deaf individuals who use American Sign Language (ASL) as well as deaf individuals who may not use ASL. Lab required. Prerequisite/Corequisite: SLNG 2301 and acceptance into the IPPD Associate of Applied Science degree program. 3 credit hours.

**SMFT 1343 Semiconductor Manufacturing Technology I**

A study of the processes, materials, and equipment used in the manufacturing of semiconductors, including an overview of the semiconductor industry, related terminology, and standard safety practice. Lab required. 3 credit hours.

**SMFT 2343 Semiconductor Manufacturing Technology II**

The continuation of Semiconductor Manufacturing Technology I covering the processes, materials, and equipment used in the manufacturing of semiconductors. Topics address process-yield analysis and process troubleshooting. Lab required. Prerequisite: SMFT 1343. 3 credit hours.

**SOCI 1301 Introduction to Sociology**

Introduction to the scientific study of social factors that influence human behavior. Includes analysis of culture and socialization processes, social interaction, deviance, social stratification/inequality, race relations, global interdependence, and gender. 3 credit hours.

**SOCI 1306 Social Problems**

In-depth examination of selected social problems, their nature, cause, extent, and effects upon society. Social problems will be analyzed at the local, state, national, and international levels. Includes inequality based on race, gender, age and class. 3 credit hours.

**SOCI 2301 Marriage and Family**

A functional approach to understanding the structural, developmental, and institutional aspects of marriage; a multicultural perspective on the 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. 3 credit hours.

**SOCI 2306 Human Sexuality**

Understanding of human sexuality; includes an appreciation of different approaches to sexuality as well as an awareness of one's own sexuality and its impact on adjustment to life. 3 credit hours.

*NOTE: Students may register for this course as SOCI 2306 or PSYC 2306, but not for both.*

**SOCI 2319 Minority Studies**

Examines the historical, social, and cultural factors that account for present circumstances and affect future prospects of specific subordinate groups in society. Special emphasis on the causes, persistence, and consequences of prejudice and discrimination and the ways and extent to which each may be reduced. 3 credit hours.

**SOCI 2371 Selected Topics in Sociology**

In-depth study of selected topics on current issues in sociology. May be repeated for credit as topics change. 3 credit hours.

**The Social Psychology of Death and Dying**

Explores social, emotional, and cognitive processes involved in our understanding and acceptance of death and dying from a cross-cultural perspective.

*NOTE: Students may register for this course as SOCI 2371 or PSYC 2340, but not for both.*

**Women, Men, and Society**

Examines the social, political, and economic effects of gender roles on the lives of men and women. Focus on sociological theory and research as well as personal experience in the subject of gender.

**SOCI 2389 Academic Co-op Sociology**

Integrates on-campus study with practical hands-on work experience in sociology. In conjunction with class seminars, the student will set specific goals and objectives in the study of sociology. Contact the Cooperative Work Experience Office. 3 credit hours.

**SOCW 2361 Introduction to Social Work**

An overview of the history, fields, skills, and values of social work practice in the United States. Includes volunteer placement with a social service agency (Service-Learning). 3 credit hours.

**SOCW 2362 Social Welfare**

This course provides an overview of contemporary social welfare including income support services, mental health services and services for children and families. It includes an examination of social welfare policy and programs. Prerequisite/Corequisite: SOCW 2361. 3 credit hours.

**SPAN 1300 Conversational Spanish I**

Intensive practice in spoken Spanish. Prerequisite: SPAN 1412 or consent of program coordinator. 3 credit hours.

**SPAN 1310 Conversational Spanish II**

Continuation of SPAN 1300. Prerequisite: SPAN 1300 or consent of program coordinator. 3 credit hours.

**SPAN 1411 Beginning Spanish I**

Introduction to the four basic skills of speaking, reading, writing, and listening to Spanish with attention to selected aspects of Hispanic culture; designed for students with little or no previous language training. Instruction enhanced by the use of slides, tapes, computer software, and video cassettes. 4 credit hours.

**SPAN 1412 Beginning Spanish II**

Continuation of Spanish 1411. Prerequisite: SPAN 1411 or consent of program coordinator. 4 credit hours.

**SPAN 2311 Intermediate Spanish I**

Continued development of speaking, listening, reading and writing skills. Instruction enhanced by the use of slides, tapes, and other audio-visual aids. Prerequisite: SPAN 1412 or consent of program coordinator. 3 credit hours.

**SPAN 2312 Intermediate Spanish II**

Extensive written and oral work and extensive reading of literary works in Spanish of moderate difficulty. Prerequisite: SPAN 2311 or consent of program coordinator. 3 credit hours.

**SPAN 2313 Spanish for Native Speakers**

Designed for students for whom Spanish is the primary or secondary method of communication at home, but who have no formal instruction in the language. In addition to grammar and vocabulary review, this course will allow students to develop advanced written and oral communication skills. Prerequisite: Consent of program coordinator and/or instructor. 3 credit hours.

**SPAN 2321 Spanish Literature I**

Study of Spanish literature from its origin to 1700. Lectures, discussions, and reading of major literary works with some attention to historical contexts. Prerequisite: SPAN 2312 or consent of program coordinator. 3 credit hours.

**SPAN 2322 Spanish Literature II**

Study of Spanish literature from 1700 to the present. Lectures, discussions, and readings of major literary works with some attention to historical contexts. Prerequisite: SPAN 2312 or consent of program coordinator. 3 credit hours.

**SPCH 1311 Fundamentals of Speech Communication**

Survey of basic factors affecting human interaction through communication; emphasis on the development of oral communication competencies; practice in delivering oral presentations. 3 credit hours.

**SPCH 1315 Public Speaking I**

Study and practice in the preparation and delivery of oral presentations; practice in different types of speeches and forms of delivery; evaluation of speakers and speeches. 3 credit hours.

NOTE: Capstones may be found in each program.



**SPCH 1321 Business and Professional Speaking**

Study of the importance of oral communication in business; practice in small group communication; study of the relationship of communication to organizational conflict, management, and international business; practice in conducting and participating in business interviews and presentations. 3 credit hours.

**SPCH 2377 Intercultural Communication**

An introduction to communication between people from different cultures. Survey of verbal and nonverbal communication, media influence, and international business protocol related to intercultural communication competence. 3 credit hours.

**SPCH 2389 Academic Co-op Speech**

Integrates on-campus study with practical hands-on work experience in speech. In conjunction with class seminars, the student will set specific goals and objectives in the study of speech. Contact the Cooperative Work Experience Office. 3 credit hours.

**SRGT 1301 Medical Terminology I**

Study of the basic structure of medical words including prefixes, suffixes, roots, combining forms, plurals, pronunciation, spelling, and the definitions of medical terms. Emphasis is on building a professional vocabulary required for employment within the allied health care field. 3 credit hours.

**T*****TECA 1303 Family and the Community***

*Formerly CDEC 1303*

A study of the relationship between the child, family, community, and educators, including a study of parent education and involvement, family and community lifestyles, child abuse, and current family life issues. Lab required. 3 credit hours.

***TECA 1311 Introduction to Early Childhood Education***

*Formerly CDEC 1311*

An introduction to the profession of early childhood education, focusing on developmentally appropriate practices, types of programs, historical perspectives, ethics, and current issues. 3 credit hours.

***TECA 1318 Nutrition, Health, and Safety***

*Formerly CDEC 1318*

A study of nutrition, health, and safety including community health, universal health precautions, and legal implications. Practical application of these principles in a variety of settings. Lab required. 3 credit hours.

***TECA 1354 Child Growth and Development***

*Formerly CDEC 1454*

A study of the principles of child growth and development from conception through adolescence. Focus on physical, cognitive, social, and emotional domains of development. Lab required. 3 credit hours.

***TRVM 1327 Hospitality and Special Events***

Focus on planning and managing special events in the meeting planning arena. An overview of the entire sequence of events, from conceptual stage of the first meeting through completion of the event. Emphasis on technical planning skills including site selection, negotiating with suppliers, devising meeting specifications, preparing a budget, and working with facility staff to manage a successful event. 3 credit hours.



## CCCCD GLOSSARY

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**AA:** Abbreviation for Associate of Arts degree.

**AAS:** Abbreviation for Associate of Applied Science degree.

**Academic Advising:** Process in which students interact with college staff/faculty advisors in decision-making, problem-solving, and long-range planning related to the student's academic goals.

**Academic Advisor:** A member of the college staff who will assist you with information about CCCC's various academic programs, degree requirements, and college transfer.

**Advanced Placement:** Credit that may be earned through standardized tests offered through the high schools.

**Add:** To enroll in another course after your original registration.

**AS:** Abbreviation for Associate of Science degree.

**Assessment:** A method to determine a student's preparation for college-level coursework.

**Attempted Hours:** The number of hours a student is enrolled in at CCCC, including college-level and developmental coursework.

**Audit:** To take a credit course without receiving a grade or credits; an audit fee is assessed at time of enrollment.

**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 booklet available in the college bookstore that is used for essay tests.

**CCCCD Official:** A person employed by CCCC in an administrative, supervisory, academic or research, or support staff position; a person serving on a CCCC governing body; or a person employed by or under contract to CCCC to perform a special task, such as an attorney or an auditor.

**Class Schedule:** List of courses and sections for a specific semester, including: name 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.

**Competency-based Education:** An educational program designed to teach applied and/or job-related clusters of skills, knowledge, and attitudes that form the basis for the evaluation of the student.

**Concurrent Enrollment:** The status of students who are enrolled in a CCCC course while they are still classified as high school students, or simultaneously enrolled at CCCC and a college or university.

**Cooperative Education:** A method of instruction between a sponsoring company and the student that provides the student training and experience in the workplace. Students work toward reaching established learning objectives as outlined in a formal plan developed by institutional staff.

**Core Curriculum:** Courses that all students are required to successfully complete (in addition to other requirements) before receiving an Associate of Arts, Associate of Science, or Associate of Applied Science degree.

**Corequisite:** Refers to 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 allows a student to receive credit for specific courses.

**Credit Hour:** A unit of measurement that is used to fulfill the requirements for a college diploma or certificate. Varies by course, but generally refers to the number of hours you will spend in a specific course each week. Upon successful completion of a course, the credit hours earned are applied to the student's academic transcript. Students need to earn a specific number of credit hours to complete their associate degree or certificate at CCCCD, to transfer to a college or university, and to complete their bachelor's degree at a college or university.

**Dean/Director:** The administrative head of a division or department.

**Degree Plan:** The list of courses required for a specific degree, which is outlined on pages 44-118 of this catalog.

**Drop:** Withdrawing from one or more courses while remaining enrolled in other courses in the college.

**Earned Hours:** The number of hours a student successfully completes including college-level, developmental, non-traditional, and transfer work.

**Electives:** Credit that does not count toward a major but which is required for a degree.

**Emerging Scholars:** See page 39.

**Engaged Scholars in the Health and Social Sciences:** See page 39.

**Fee:** A charge for services that is added to the tuition.

**Field of Study:** See page 45.

**Freshman:** A student's classification until 30 credits are earned.

**Full-Time:** To be enrolled in 12 or more credit hours during a fall or spring semester, or six or more hours in a summer session.

**GPA (Grade Point Average):** A calculation made each semester that summarizes grades and credit hours. GPA is calculated by dividing the total number of quality grade points by the total number of quality credit hours attempted in a given semester. The cumulative GPA is based upon all college level courses completed at CCCCD.

**Grade Points:** The value given to each letter grade to calculate the GPA.

**Grade Report:** A report mailed to each student containing courses and grades for a particular semester.

**Humanities:** The branch of learning that explores human thought and relations.

**Lab:** A teaching component that occurs inside and/or outside the classroom to enhance the learning experience.

**Lab Sciences:** Science courses utilizing scientific principles for experimentation and research.

**Learning Community:** A Learning Community blends two or more courses around a common interdisciplinary theme to form one integrated class where students and faculty develop into a community of learners. See page 41 for details.

**Major:** Your subject area of specialization.

**Non-advanced Course:** Courses offered on the freshman (1000 series) and sophomore (2000 series) levels.

**Non-credit Course:** A course for which no credit can be earned.

**Orientation:** A session held to acquaint new students with all areas of the college.

**Overload:** Course load of more credit hours than students are normally permitted to schedule in a given semester. Overloads require approval of an academic advisor.

**Part-Time:** To be enrolled in less than 12 credit hours in a fall or spring semester, or less than six hours in a summer session.

**Permanent Record:** Cumulative record of students' courses, grades, credits, classification, address, social security number, etc.

**Prerequisite:** Refers to a course that must be taken before you can enroll in a subsequent course.

**Probation:** A way to warn a student that his/her grades are below a certain standard. Probation may also be applied for disciplinary reasons.

**Quality Hours:** The number of college-level hours a student completes at CCCCD, excluding developmental, non-traditional, and transfer work. These hours are used in calculating a student's CCCCD grade point average.



**Registration:** Enrollment prior to the beginning of a semester, including selection of classes and payment of fees and tuition.

**Schedule of Classes:** List of courses and sections for a specific semester, including name of instructor; day, hour, and place of class meetings; and detailed registration procedures.

**Section:** A number used during registration to differentiate between days, times, room numbers, and professors of the same course.

**Service-Learning:** Academically-based volunteer service. See page 42 for more information.

**Session:** Courses that are offered with start and end dates that vary from the “regular” semester. Typically, a session is shorter than a regular semester.

**Sophomore:** The classification used for students who have earned 30 credit hours or more.

**Special Populations Students:** Individuals with disabilities, educationally and economically disadvantaged individuals, individuals of limited English proficiency, individuals who participate in programs designed to eliminate sex bias, and individuals in correctional institutions.

**Suspension:** Temporary dismissal of a student because his/her grades have fallen below a certain standard. Suspension may also be applied for disciplinary reasons.

**Syllabus:** An outline, usually presented on the first day of class, covering course topics and assignments, required textbooks, attendance, and grading policies.

**TASP (Texas Academic Skills Program):** The state-mandated 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.

**Tech Prep:** Tech Prep is an educational process which helps prepare high school students for emerging technologically advanced careers. Students earn college credit while in high school and can transfer those credits into specific career preparation programs at CCCCD.

**Transcript:** The official record of all coursework at a particular institution.

**Transfer Agreement:** A formal agreement between two institutions of higher education that provides the framework for the acceptance of specific courses and/or programs by the receiving college or university.

**Transfer Courses:** Courses that transfer to other colleges and universities.

**Weblines:** Online registration through the CCCCD homepage, [www.ccccd.edu](http://www.ccccd.edu).

**WECM (Workforce Education Course Manual):** A procedures and guidelines manual of the Texas Higher Education Coordinating Board for state-funded technical education programs in public community and technical colleges. The program guidelines were implemented in fall 1997.

**Withdrawal:** To withdraw from one or more courses in a particular semester after the census date.



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