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# Smart Move.



COLLIN  
COUNTY  
COMMUNITY  
COLLEGE  
DISTRICT

2003-  
2004  
catalog

TRANSFORM *ing*  
*educa*TION



**COLLIN  
COUNTY  
COMMUNITY  
COLLEGE  
DISTRICT**

**Published by**

Collin County Community College District

Public Relations and Publications Department  
Courtyard Center  
4800 Preston Park Boulevard  
P.O. Box 869055  
Plano, Texas 75086-9055

**2003-2004 • No. 18**

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# 2003–2004 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).

## **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.

## **ACCREDITING BODIES**

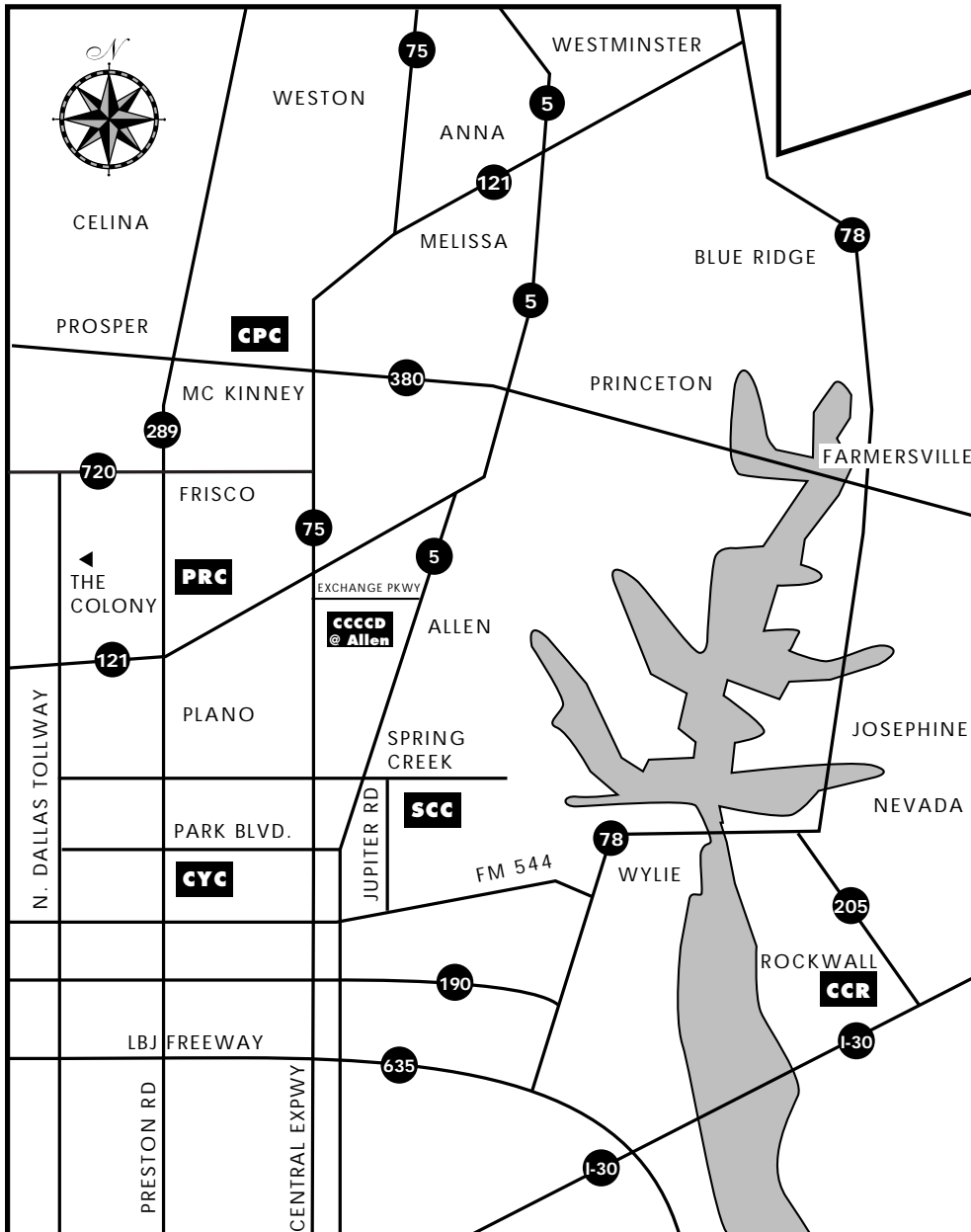
American Dental Association, Board of Nurse Examiners for the State of Texas, Committee on Accreditation for Respiratory Care, Dietary Manager Association, National Accrediting Agency for Clinical Laboratory Sciences, National League for Nursing, Texas Commission on Fire Protection, Texas Commission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

*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**

# Collin County Community College District Map



## CAMPUS LOCATIONS

**Central Park Campus (CPC)**  
 2200 West University Drive  
 P.O. Box 8001  
 McKinney, Texas 75070-8001  
 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 East Spring Creek Parkway  
 Plano, Texas 75074  
 972.881.5790

**CCCCD@ALLEN**  
 Allen High School  
 3000 Rivercrest Boulevard  
 Allen, Texas 75002  
 214.491.6200

**College Center at Rockwall (CCR)**  
 1050 Williams Street  
 Rockwall, Texas 75087  
 972.881.5790

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

## 2003-2004 Academic Calendar

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### FALL 2003

Fall Classes Begin	August 25
Labor Day Holiday (Campuses Closed)	September 1
Fall Census Date	September 8
Fall Last Day to Withdraw	November 14
Thanksgiving Holiday (Campuses Closed)	November 26-November 30
Fall Final Exams	December 8-13
Winter Break (Campuses Closed)	December 24-January 4

### WINTERMESTER 2004

Wintermester Classes Meet	December 15-19, 2003
Wintermester Census Date	December 16
Winter Break (Campuses Closed)	December 24-January 4
Wintermester Classes Resume	January 5
Wintermester Last Day to Withdraw	January 6
Wintermester Final Exams	January 9

### SPRING 2004

MLK Holiday (Campuses Closed, except for community events at SCC)	January 19
Spring Classes Begin	January 20
Spring Census Date	February 2
Spring Break (No Classes)	March 15-19
Spring Holiday (Campuses Closed)	April 9-11
Spring Last Day to Withdraw	April 16
Spring Final Exams	May 10-15
2003-2004 Commencement 7:00 p.m.	May 13

### MAYMESTER 2004

Maymester Classes Begin	May 17
Maymester Census Date	May 18
Maymester Last Day to Withdraw	May 25
Memorial Day Holiday (Campuses Closed)	May 31
Maymester Final Exams	June 1

### SUMMER I AND III 2004

Summer I and III Classes Begin	June 7
Summer I Census Date	June 10
Summer III Census Date	June 16
Summer I Last Day to Withdraw	July 1
Independence Day Holiday (Campuses Closed)	July 2-4
Summer I Final Exams	July 8
Summer III Last Day to Withdraw	July 23
Summer III Final Exams	August 11-12

### SUMMER II 2004

Summer II Classes Begin	July 12
Summer II Census Date	July 15
Summer II Last Day to Withdraw	August 6
Summer II Final Exams	August 12

## 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 A221		972.377.1671 F147E	972.881.5126 K102
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
Honors Institute				972.881.5803 F102
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 U136	972.881.5921 J228
Recruitment and Retention for New Students			972.377.1750 F133	
Service-Learning Office	972.548.6739 B203		972.377.1585 F210	972.881.5800 B240
Student Development Center	972.548.6770 A108		972.377.1770 F135	972.881.5770 G103
Student Life	972.548.6788 A108		972.377.1788 A185	972.881.5788 F129



<b>STUDENT SERVICES-continued</b>	<b>CPC</b>	<b>CYC</b>	<b>PRC</b>	<b>SCC</b>
Student Lounge	972.548.6788 First Floor D		972.377.1788 Alumni Hall – Spokes	
Tech Prep—Global EDGE	972.548.6723 A114			
Testing Center	972.548.6849 B342		972.377.1523 F209	972.881.5922 J232
Transfer Programs Office		972.985.3734 A312		
Tutoring				972.881.5128 G200
Wellness Center				972.881.5777 A217
Writing Center	972.548.6857 B117		972.377.1576 F145	972.881.5843 D157

NOTE: Limited Student Services are available at CCCCD@Allen

<b>ADMINISTRATIVE DEPARTMENTS</b>	<b>CPC</b>	<b>CYC</b>	<b>PRC</b>	<b>SCC</b>
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 U111	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
CCCD Foundation (Scholarships)	972.548.6612 B216			
Dean of Students Office	972.548.6771 A108		972.377.1770 F135	972.881.5604 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 Building	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

<b>OTHER COLLEGE SITES</b>				
CCCD@ALLEN	214.491.6200 A101			
College Center at Rockwall	972.881.5790			

## Academic Divisions

### BUSINESS AND COMPUTER SCIENCE

**Dean: Vacant**

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

**Academic Advisor:**

Al Gober . . . . .PRC-F143 . . . . . 972.377.1780

**Areas of Emphasis:**

- Accounting.....AA, F
- Business Administration.....AA, F
- Business Law.....N/A
- Computer Information Systems.....AAS, C
- Computer Programming.....AAS, C
- Computer Science.....AS, F
- E-Business Media.....AAS, C
- Economics.....AA, F
- Hotel/Restaurant Management.....AAS, C
- Management Development.....AAS, C
- Marketing.....AAS, C
- Medical Transcription.....C
- Office Systems Technology .....AAS, C, M
- Paralegal/Legal Assistant .....AA, AAS, C
- Pre-Law.....N/A
- Real Estate.....AAS, C

### COMMUNICATIONS AND HUMANITIES

**Interim Dean: Ms. Sherill Cobb (SCC)**

**Associate Dean: Ms. Shirley McBride (SCC)**

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

**Academic Advisor:**

Tori Hoffman . . . . .PRC-F142 . . . . . 972.377.1779

**Areas of Emphasis:**

- American Sign Language.....AA
- Communications.....N/A
- English.....AA
- Foreign Languages
- Chinese, Italian, Japanese, Russian.....N/A
- French, German, Spanish.....AA

**Degrees:**

- Humanities.....N/A
- Interpreter Preparation Program/Deaf.....AAS, C
- Philosophy.....AA
- Speech Communication.....AA

### DEVELOPMENTAL EDUCATION

**Dean: Ms. Juanita Austin (SCC)**

CPC-B336 .....972.548.6894  
 PRC-F210 .....972.377.1643  
 SCC-K102 .....972.881.5720

**Academic Advisor:**

Chrissy Benefield . . . . .SCC-G202 . . . . . 972.881.5950

**Areas of Emphasis:**

- Developmental Mathematics.....N/A
- Developmental Reading.....N/A
- Developmental Writing.....N/A
- English as a Second Language (ESL).....N/A
- Non-Course Based TASP Development.....N/A

**Degrees:**

### EDUCATION

**Director: Brenda Kihl**

CCCCD@Allen.....214.491.6201

**Academic Advisors:**

Carie Andrews . . . . .SCC G106 . . . . . 972.881.5773  
 Jyo Pai . . . . .CCCCD@Allen . . . . . 214.491.6202

**Areas of Emphasis:**

- Child Development.....AAS, C, M
- Early Childhood-Grade 4 Certification.....AA, F
- Grades 4-8 Certification.....AA, F

**Degrees:**

**LEGEND**

**Transfer Degrees:**

- AA – Associate of Arts
- AS – Associate of Science
- F – Field of Study

**Workforce Education:**

- AAS – Associate of Applied Science
- C – Certificate
- E – Enhanced Skills Certificate
- M – Marketable Skills Achievement Award

**CAMPUSES**

- CCCCD@Allen –
- Allen High School
- CPC – Central Park Campus

- PRC – Preston Ridge Campus
- SCC – Spring Creek Campus

## ENGINEERING TECHNOLOGY

**Dean: Ms. Ann Beheler (PRC)**

**Associate Dean: Wayne Jones (PRC)**

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

**Academic Advisor:**

Terrence Brennan .....PRC-F136  
972.377.1778

**Areas of Emphasis:**

- Computer-Aided Drafting and Design.....AAS, C, E
- Computer Networking Technology .....AAS, C
- Electronic Engineering Technology .....AAS, C
- Electronic Technology .....AAS, C
- Engineering.....AS, F
- Engineering Technology.....AS, F
- Interior and Architectural Design .....AAS, C
- Pre-Architecture .....N/A
- Pre-Engineering.....N/A
- Semiconductor Manufacturing Technology.....AAS, C
- Telecommunications Technology.....AAS, C

**Degrees:**

## FINE ARTS

**Dean: Dr. Michael Crawford (SCC)**

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

**Academic Advisor:**

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

**Areas of Emphasis:**

- Applied Graphic Design Technology.....AAS, C
- Art .....AA
- Commercial Music .....AAS, C
- Dance .....AA
- Music .....AA, F
- Photography .....AA
- Theatre.....AA

**Degrees:**

## MATHEMATICS AND NATURAL SCIENCES

**Dean: Dr. Cameron Neal (SCC)**

CPC-B305 .....972.548.6830  
PRC-F210 .....972.377.1585  
SCC-F135 .....972.881.5880

**Academic Advisor:**

Windy Pitcock .....SCC-G104 .....972.881.5854

**Areas of Emphasis:**

- Biology.....AS
- Biotechnology .....AAS, C
- Chemistry.....AS

**Degrees:**

- Environmental Science .....AS
- Geology.....AS
- Mathematics.....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 (SCC)**

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

**Academic Advisor:**

Audrey Newsome .....CPC-A108B .....972.548.6779  
.....SCC-G104 .....972.881.5782

**Areas of Emphasis:**

- Athletics .....N/A
- Physical Education .....AS

**Degrees:**

## SOCIAL SCIENCES, HEALTH AND PUBLIC SERVICES

**Dean: Mr. Gary Hodge (CPC)**

**Associate Dean: TBA**

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 .....SCC-G107 .....972.881.5114  
Suzon Schroeder .....CPC-A108C .....972.548.6778  
Jeannie Walls .....CPC-A108C .....972.548.6778

**Areas of Emphasis:**

- Anthropology .....AA
- Criminal Justice .....AA, F
- Dental Hygiene .....AAS
- Emergency Medical Services.....AAS, C
- Fire Science .....AAS, C
- Geography.....AA
- Government .....AA
- History.....AA
- Nursing .....AAS, AS, F
- Psychology .....AA
- Respiratory Care .....AAS
- Service-Learning.....N/A
- Social Work .....N/A
- Sociology .....AA

**Degrees:**

# ABOUT COLLIN COUNTY community college district

Since offering its first classes at area high schools in 1985, Collin County Community College District (CCCCD) has expanded to serve more than 38,000 credit and continuing education students each year. The college offers more than 100 degrees and certificates in a wide range of disciplines.

## **AWARD-WINNING PROGRAMS AND FACULTY**

Among CCCC's nationally recognized programs are Learning Communities and Service-Learning, which earned the National Bellwether Award for outstanding and innovative practices presented by the National Council of Instruction Administrators and the Institute of Higher Education. The Dance Repertory has consistently won Gala Awards and is the only community college program in the nation to win three times in four years. And CCCC's theatre program is consistently ranked among the top five in the nation.

CCCC's faculty include a U.S. Professor of the Year, an award presented by the Carnegie Foundation for the Advancement of Teaching and the Council for Advancement and Support of Education (CASE), and four Minnie Stevens Piper Professors, one of Texas' highest honors bestowed upon college and university professors. Also among the faculty is an honoree of the Teaching Excellence Award, presented by the Texas Mathematical Association of Two Year Colleges.

Moreover, CCCC offers students a comprehensive college experience through a wide variety of theatre, music and dance performances, art exhibits, athletic events, and a guest lecture series bringing renowned scholars to CCCC campuses. Nobel Peace Prize winner Dr. Norman Borlaug; noted mathematician Dr. Keith Devlin, who is a senior researcher at Stanford University and executive director of Stanford's Center for the Study of Language

and Information; and Harriett Mayor Fulbright were among past speakers.

In 2002, the college received the coveted "Best of the Web" award from the Center for Digital Government for its downloadable catalog/schedule system. Honored as the best in the nation for higher education, this system helps students build their credit course schedules or view the current catalog electronically.

## **INNOVATIVE OPPORTUNITIES**

CCCC was the first Texas community college to offer concurrent admissions, allowing students to earn credit at CCCC and a major university simultaneously. Through this program, students can take their freshman and sophomore course at CCCC and upper division course at a participating university. To date, the University of North Texas (UNT), University of Texas at Dallas (UTD) and Southern Methodist University (SMU) hold concurrent admissions agreements with CCCC. In addition, UNT provides upper division courses on CCCC campuses.

In response to critical need for classroom teachers, CCCC became the first community college in the nation to offer teacher certification. A unique agreement with Texas A&M University-Commerce awards a maximum of nine hours of graduate credit to students enrolled in CCCC's Teacher Certification Program. Texas A&M University-Commerce provides graduate-level classes at CCCC's Allen site.

In addition to core curriculum, CCCC offers extensive training in the health professions and public service fields, including nursing, respiratory therapy, dental hygiene, emergency medical services, fire science and law enforcement. Certificates can be earned in a wide range of high-tech fields as well. Augmenting the computer networking technology program, CCCC is one of nine national Cisco Certified Training Centers.

## **LOCATIONS**

CCCCD offers credit and continuing education courses on campus, at area businesses or via the Internet. In addition to providing core curriculum courses, each location specializes in a particular academic discipline.

### **Central Park Campus**

CCCCD 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 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 academy building, fire rescue complex, hospital lab, law enforcement academy and Pike Hall are housed at CPC.

### **Spring Creek Campus**

The Spring Creek Campus (SCC) was completed in fall 1988 and is located at the intersection of Jupiter Road and Spring Creek Parkway in Plano. The facility houses the 356-seat John Anthony Theatre, 30,000 square-foot Arts Gallery, the Honors Institute, and Brinker Tennis Stadium. Recently, the college constructed additional general-purpose classrooms at Spring Creek, adding space for high tech training and science labs. 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, communications and humanities, and mathematics and natural sciences.

### **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. Preston Ridge Campus is comprised of Heritage Hall, Founders Hall, Alumni Hall, and University Hall. It is also the home of the college's high-tech and business programs including electronic engineering technology, semiconductor and manufacturing technology, computer network technology, computer-aided drafting and design, and telecommunications technology. The campus is home to the first academic "Convergence Lab" in the state of Texas and is also the site for a national Cisco Academy Training Center, which serves the eight-state Southwest region. PRC is also under expansion with plans underway to build technology and science classrooms along with a new library.

### **Courtyard Center**

The Courtyard Center for Professional and Economic Development (CYC) opened in 1993. Located on Preston Park Boulevard in Plano near the intersection of Park and Preston, CYC

is a complex that houses the Continuing Education and Workforce Development Division, the Small Business Development Center and the Business Solutions Group, which provides customized training to area businesses. Courses offered at CYC include career development classes, real estate courses, contract and corporate training, Seniors Active in Learning (SAIL), and Project NEW (Network to Empower Entrepreneurial Women).

### **CCCCD@Allen**

CCCCD@Allen is located within Allen High School, opened in the fall of 1999 and offers credit classes. The campus is the home of CCCC's 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.

## **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, CCCC 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 certifications, 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 support services, including counseling and learning resources designed to assist individuals in achieving their educational and career goals.
- Workforce, economic and community development activities designed to meet local and statewide needs.
- Other purposes as may be directed by the CCCC Board of Trustees and/or the laws of the State of Texas.

## CCCCD Board of Trustees

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Cynthia (Cindy) Bauge  
Plano

**Profession:**

Vice President of Grant Sales, Inc. in Plano

**Other involvements:**

Member of the CCCCCD Foundation, Inc. Board; Plano Chamber of Commerce (Athena Award Winner – Business Woman of the Year); Member of the Plano Tax Abatement Committee; Member of the Plano Tax Increment Financing Committee; Development Board Member for Legacy Women’s Financial; Member of the Plano Economic Development Board

*“CCCCD’s course offerings not only equip students with professional and career skills, but also strengthen character and challenge the intellect. The trustees are committed to offering high quality education in a cost effective manner.”*



Dr. E.T. Boon  
Allen

**Profession:**

Retired Dentist

**Other involvements:**

Former Member and Past President Allen ISD School Board; Past Board Member Allen Chamber of Commerce; Charter Member and Past President Allen Economic Development Corporation; Fellow American Academy of General Dentistry; Master Academy of General Dentistry; Texas Industrial Development Council - Texas Volunteer Industrial Developer of the Year Award

*“My duty is to assist in providing the very best education possible for our students at affordable tuition. I also have a duty to make certain that our tax payers’ money is spent in a prudent manner.”*



Dr. J. Robert Collins  
Farmersville  
Founding Board Member

**Profession:**

Distinguished Lecturer in Entrepreneurship in the College of Business and Technology at Texas A&M University-Commerce; Former Corporate Vice President and Corporate Officer, E-Systems, Inc.

**Other involvements:**

Chairman of the Board of the Greenville Christian School; Member of the Engineering Advisory Council for Texas A&M University – College Station; Member of Farmersville Economic Development Corporation; Previous City Council and Mayor Pro-Tem, City of Plano

*“The college offers a top-notch education for students who might not want to leave the county, as well as for graduates in the workforce desiring to upgrade and improve skills. CCCCCD serves as a catalyst supporting economic growth in the county for the foreseeable future.”*



Mac Hendricks  
McKinney

**Profession:**

Real Estate Developer

**Other involvements:**

Member of the Avenues Counseling Center Board; Former three-term Member of the McKinney Economic Development Corporation Board

*“Collin County has every reason to be extremely proud of its accomplishments in higher education. Support from the community and great leadership has enabled CCCCCD to rise to the top in Texas and the nation.”*



**Brenda Willard Goodell**  
Celina

**Profession:**

Former Chief Financial Officer for a major agricultural company

**Other involvements:**

Former Member of the Southwest Credit Association Board of Directors; Former Secretary of the Celina ISD Board of Trustees; Former Member Appraisal Review Board for Collin County Central Appraisal District; Board Member of C.A.R.E., a local scholarship foundation

*"I appreciate the confidence that the voters of this community placed in me in May 2002 by electing me to a new term on the CCCCCD Board of Trustees. The CCCCCD board is currently faced with many challenges related to meeting the needs of a burgeoning student population in uncertain economic times. I look forward to working with the administration, faculty and other board members to ensure that CCCCCD remains the best community college in the nation."*



**Glenn Justice**  
Parker

**Profession:**

Retired Mortgage Banker; owned the Glenn Justice Mortgage Company

**Other involvements:**

Member of the Plano Economic Development Board; Member of the Tax Abatement Committee; Member of the CCCCCD Foundation, Inc. Board; Member of the Plano Sunrise Rotary

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



**Sam Roach**  
Frisco

Chairman, CCCCCD Board of Trustees

**Profession:**

Owner – Sam Roach Business Center and Sam Roach Real Estate

**Other involvements:**

Member of the CCCCCD Foundation, Inc. Board; Member of the 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. CCCCCD 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–Tino's Restaurant and Tino's Too Restaurant in Plano

**Other involvements:**

Member of the Plano Rotary Club; Director of the Craig Gilbert Foundation; Director of the Hendricks Academy of Honor Foundation (both scholarship foundations)

*"I think the main thing is to make college affordable for students who 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

## ADMISSIONS POLICIES

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, CCCCCD 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 the following 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 the most recent high school (or copy of GED scores) or college attended, 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 particular program of study. Programs and certificates in dental hygiene, firefighter certification, nursing, and respiratory care have specific program admissions criteria and require approval to enroll. Refer to the programs in this catalog, and/or 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 CCCCCD students who have not been enrolled at CCCCCD 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 CCCCCD and documentation of TASP status are required. For more information on residency, see page 15.

## STUDENTS WITHOUT DIPLOMA OR GED

Students under 18 without a high school diploma or equivalent will be required to:

1. Complete CCCCCD assessments in reading, writing, and mathematics (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. Provide written parental/guardian permission for students under 18 years of age, and
6. Contact an academic advisor.



Anyone over 18 years of age 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 (General Education Diploma) 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 to CCCCD. 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. Official course descriptions from the catalog under which the student attended may be required for evaluation.
4. 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.
5. 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.
6. Grades of "D" are accepted from other institutions; however, a cumulative GPA of 2.0 is required for graduation. Grades of "F" and "I" will not transfer.

7. 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).

8. 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 coursework 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.

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

10. CCCCD does not evaluate transcripts or award transfer credit earned at foreign institutions; however, students may be eligible for credit through examination at the college.

CCCCD Degree Plan Coordinators conduct official transcript evaluations. Students must be currently admitted to CCCCD to request a degree plan.

## **HOME-SCHOOLED SPECIAL ADMISSIONS**

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 cannot exceed two college credit courses per semester. Admission and continued enrollment are provisional.

## HIGH SCHOOL SPECIAL ADMISSIONS

High school students who have completed their junior year and are interested in concurrent admission to 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, provide SAT, ACT, or TAAS scores showing exemptions or take the alternative TASP 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

College Tech Prep enables students to take CCCCD courses while in high school. Students who elected to take a college Tech Prep pathway in high school will be eligible to receive college credit for those courses, if the criteria below are met. The Global EDGE Tech Prep Consortium is part of a national network of business and educational partnerships that develop these pathways from high school to college via Tech Prep programs. College Tech Prep is a multi-year planned sequence of study for a technical field that begins in high school and extends through one or two years at CCCCD. Current College Tech Prep programs at CCCCD include: Child Development, Computer-Aided Drafting and Design, Computer Networking Technology, Computer Information Systems, Criminal Justice, Electronic Technology, Electronic Engineering Technology, Hotel/Restaurant Management, Interior Design, Office Systems Technology, and Telecommunications Technology.

### CRITERIA FOR ELIGIBILITY

The following criteria is required in order to be eligible for college credit:

- Complete the high school college Tech Prep class with a grade of B or better
- Receive an 80 or better on the end-of-course exam in high school (*applies only to Criminal Justice or Child Development Tech Prep course-takers*)

- Enroll at CCCCD in an Associate of Applied Science degree plan
- Declare a technical degree major from among the workforce education programs that includes the Tech Prep courses taken in high school
- Successfully complete 6 non-developmental course credit hours at CCCCD within 24 months of high school graduation
  - Students who participated in concurrent CCCCD enrollment need to complete 3 credit hours
- Bring the high school transcript to the Admissions and Records Office at CCCCD and complete a Petition for Tech Prep Credit within 24 months of high school graduation.
- CCCCD does not participate in the Statewide Articulation Program.

For more information contact the Global EDGE office at 972.548.6723. Or visit the Global EDGE Tech Prep Consortium website at <http://ftp.ccccd.edu/globaledge>.

## 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.

The following deadlines are required for students residing outside of the United States:

- Fall semester - June 1
- Spring semester - November 1
- Summer semesters - April 1

## INTERNATIONAL STUDENT ADMISSIONS

### (F-1, F-2 VISAS)

All international students must submit the following to the International Students 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 TASP test score (to be taken upon arrival at CCCCDD).

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.

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

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

1. A copy of current I-20, passport, visa, and I-94 card.
2. Transfer clearance from the international student advisor at the last college or university attended.
3. TASP or alternative TASP test score (to be taken upon arrival at CCCCDD) 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 Nilsen, Coordinator of International Students, at SCC-C225, 972.516.5011.

### **STUDENTS ON ACADEMIC SUSPENSION**

See "Academic Standards" on page 22 or contact the Assistant Director of Academic Advising 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 will 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 CCCCDD. 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 be reported promptly to the Admissions and Records Office.

Students who are dependent on a parent's residence status must also submit the top portion of their parent's Federal Income Tax Returns 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, copies of two years of their most recent Federal Income Tax Returns 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.

### **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 have met with an academic advisor. Telephone and Weblines Registration enable students to have earlier course selection, more comprehensive academic advisement, and utilize the Tuition Installment Plan.

See the current *CCCCDD 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 academic 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 *CCCCD Schedule of Classes* for a listing of On-Site 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 CCCCDC 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:

1. **Walk-in registration:** Available at Courtyard Center, Central Park, Preston Ridge, or Spring Creek campuses: Times are listed in the current Continuing Education Schedule of Classes.
2. **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.
3. **Mail-in registration:** Send your registration information to: Registration, Collin County Community College, Courtyard Center for Professional and Economic Development, 4800 Preston Park Boulevard, Box 12, Plano, Texas 75093. See the current Continuing Education Schedule of Classes for registration deadlines.
4. **Fax-in registration (credit card only):** Check the current Continuing Education Schedule of Classes for fax availability. Fax your registration to 972.985.3723 or 972.548.1702. See page 38 for more information on Continuing Education.
5. **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 CCCCDC are required to have a Student ID Card to use services provided by college offices and labs including the CCCCDC Bookstore, Career Services, Computer Labs, Enrollment Management, Fitness Center, LRC, Math Lab, Student Life, and the Testing Center. Student Life makes ID cards. Student ID office hours are listed in the *CCCCDC Student Handbook*.

First-time students are assessed a student ID fee with their tuition. Once the student has registered and paid for their courses, the ID card will be issued in accordance with the dates posted in the "Getting Started" calendar section of the *CCCCDC Schedule of Classes*. Students must show a form of photo identification in order to have their student ID cards issued. The ID card will be valid district-wide throughout the student's tenure at the college. Student ID cards will be automatically reactivated each semester after the student enrolls in courses and pays the corresponding tuition and fees.

For a fee, a replacement ID card will be reissued 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 Life for more information.

## TUITION AND FEES

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

Lab fees are additional costs. Other 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 CCCCDC Board of Trustees.

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

It is the policy of CCCCDC to revoke check-writing privileges to persons from whom it has received more than three returned checks.

**TUITION AND FEES SCHEDULE+**

Credit Hours	In-County \$31/credit hour	Out-of-County \$39/credit hour	Out-of-State/Country \$74/credit hour
1	\$37.00*	\$41.00	\$212.00**
2	\$68.00	\$80.00	\$222.00**
3	\$101.00	\$119.00	\$260.00
4	\$134.00	\$158.00	\$346.00
5	\$167.00	\$197.00	\$432.00
6	\$200.00	\$236.00	\$518.00
7	\$233.00	\$275.00	\$604.00
8	\$266.00	\$314.00	\$690.00
9	\$299.00	\$353.00	\$776.00
10	\$332.00	\$392.00	\$862.00
11	\$365.00	\$431.00	\$948.00
12	\$398.00	\$470.00	\$1,034.00
13	\$431.00	\$509.00	\$1,120.00
14	\$464.00	\$548.00	\$1,206.00
15	\$497.00	\$587.00	\$1,292.00
16	\$530.00	\$626.00	\$1,378.00
17	\$563.00	\$665.00	\$1,464.00
18	\$596.00	\$704.00	\$1,550.00
19	\$629.00	\$743.00	\$1,636.00
20	\$662.00	\$782.00	\$1,722.00
21	\$695.00	\$821.00	\$1,808.00

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

\* Includes \$25 minimum required by law

\*\* Includes \$200 minimum required by law

**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.

**COST PER CREDIT HOUR EXAMPLE**

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

Per Hour	In-County	Out-of-County	Out-of-State
Tuition	\$23	\$29	\$76
Bldg. Use Fee	9	9	9
Student Life Fee	1	1	1
<b>Total</b>	<b>\$33</b>	<b>\$39</b>	<b>\$86</b>

\*\*\*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.

**SENIOR CITIZEN REDUCED TUITION**

Texas residents age 55 and older by the first class day of the semester are eligible to pay 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 CCCCD Schedule of Classes for more information.

**REFUNDS**

Refund calculations are based on the state-mandated refund policy. Full (100 percent) 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 online 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 their 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, sign language, Cisco, and Microsoft 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



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COLLEGE  
DISTRICT

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 toward 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. Professors determine class attendance requirements; therefore, students 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; not computed toward cumulative GPA unless it is replaced with a performance grade. (See "Incomplete Grades and Contracts")
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 regular (16-week) semester or receive an "IP" as the permanent grade. "IP" is 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 the professor replaces it 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 the Telephone and Webline Registration Systems.

### 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 they were enrolled under that catalog; however, students may benefit from graduating under the requirements of the most recent catalog.

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

Associate of Arts, Associate of Science, or Associate of Applied Science degree honors will be awarded to 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 courses 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 44-118 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 degree should submit an application for graduation at the beginning of the semester of degree completion.

### 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 participate 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 15 hours of coursework 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. Although certificates are normally one year in length, the specific number of credit hours varies by program area. Students earning certificates may participate in commencement ceremonies.

Candidates for a certificate should submit an application for graduation at the beginning of the semester of degree completion.

## HIGH ACADEMIC ACHIEVEMENT

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 AND CONTRACTS

The "I" grade is assigned only for extenuating circumstances. Incomplete contracts must be agreed to and signed by the student, professor, coordinator and appropriate division dean before the end of the term in order for a grade of "I" to be assigned. The contract must define the exact requirements (not to exceed 20 percent of the coursework) the student is to fulfill in order to receive a performance grade. If remaining work is greater than 20 percent of the coursework, Vice President of Academic Affairs approval is required. 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 CCCC. 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 CCCC. The college uses the following criteria for CLEP Subject Examination evaluation:

1. CLEP credit shall be recorded on transcripts with a "CR" in order to be clearly recognized as credit earned by examination.
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 processing 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. Credit by exam 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 exams 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 director at CCCC.

## **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. The student must pick up an institutional Credit by Exam/Portfolio Review form from a campus Testing Center.
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, the professor will complete and submit the Credit by Exam form which will be returned to a campus Testing Center for credit.

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 that 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**

CCCC 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 November 19, 1974.
6. To organizations conducting certain studies for or on behalf of the college.
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.
14. To CCCC Public Safety Officers in a health or safety emergency.

## 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 in writing.

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

Grades of all courses taken will be recorded on the student's transcript. 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. A course in which a grade of F has been received can only be repeated one time to replace the grade of F. 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. Students planning to transfer to another college or university should check with the Transfer Lab or with receiving institutions for their repeat policies.

## 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 semester 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 earned 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 Webline Registration systems. Probation students are limited to 12 semester hours during each regular (16-week) 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 prior to early registration to formulate a plan to raise their GPA. 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.

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 Add/Drop period as stipulated in the CCCC 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 2.0 GPA for the semester, but still have a cumulative GPA of less than 2.0, may continue their studies at CCCC as long as they maintain a current 2.0 GPA for each subsequent term. 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 2.0 GPA for the current semester and has a cumulative GPA below 2.0. Students with this status will be suspended from the college for one regular (16-week) semester.

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

## READMISSION AFTER A PERIOD OF ACADEMIC SUSPENSION

After a period of Academic Suspension (one regular (16-week) 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 2.0 GPA for the current semester will automatically be dismissed from the college for a period of one academic year [two regular (16-week) semesters].

## READMISSION AFTER A PERIOD OF ACADEMIC DISMISSAL

To be considered for readmission to CCCC, 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 CCCC after being on probation or being suspended or dismissed from other colleges may seek

enrollment at CCCC. To be considered for admission, the student is required to:

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

For final consideration, students must complete the interview process with the Assistant Director of Academic Advising prior to the first day of class.

## 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 includes the Dean of Students, the Registrar/Director of Admissions, 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 upon: (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, but has not earned a degree.
- **Full-time:** A student enrolled for 12 credit hours or more in a regular (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 regular (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.

Students with disabilities should contact the ACCESS office at 972.881.5898 for student classification/load information.

## STUDENT SELF-SERVICE ENROLLMENT VERIFICATION

This program provides students with on-line access to enrollment verification services from the National Student

Clearinghouse. By using a link on the CCCC website, students can achieve the following.

- Print a certificate of enrollment that can be forwarded to a health insurer, housing provider, credit issuer, employment agency, or other student services providers.
- View enrollment information that may have been provided to a student services provider.
- View electronic notifications and deferment forms that have been sent to lenders, servicers, and guarantors.
- View a list of their lenders and link to real-time student loan information detail, such as outstanding principal balance and the next payment due date that some lenders provide.

Website: [www.ccccd.edu](http://www.ccccd.edu); the link is: Student Self Service Enrollment Verifications.

Students may contact the National Student Clearinghouse directly at 703.742.7791 or [www.studentclearinghouse.org](http://www.studentclearinghouse.org) for further questions concerning their enrollment verifications.

## 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 from the registrar, 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 (16-week) semester or nine hours during a summer session. Students are limited to one course (maximum three credit hours) during the Wintermester or Maymester sessions.

## STUDENT RIGHT TO KNOW

Under the terms of the Student Right to Know Act, the college maintains and updates on an annual basis, student persistence, graduation rates, transfer rates and other relevant statistics. To obtain copies of these reports, contact the Academic Advising Department, the Office of the Dean of Students, the Recruitment and Programs for New Students Office, or the Provost Office on any campus.

## TRACKING AT-RISK STUDENTS

The Office of Institutional Research tracks CCCC 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 will be released to other parties (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@cccd.edu](mailto:transcripts@cccd.edu).

## VERIFICATION OF STUDENT DEGREES

CCCCD has partnered with the National Student Clearinghouse to provide degree verifications. Students, as well as employment agencies, credit issuers and other student servicers can contact the National Student Clearinghouse directly to receive degree verification at 703.742.7791 or [www.studentclearinghouse.org](http://www.studentclearinghouse.org).

## 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 courses at CCCC. Students who do not attend/participate in TASP required remediation may be administratively withdrawn from all courses with no refund. A student who discontinues class attendance and does not officially withdraw will receive a performance grade for the course.

# STUDENT development



## ACADEMIC AND 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. For more information, see the ACPE course descriptions listed in the back of this catalog.

## 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 is housed in the Student Development Center at each campus and 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 life
- Information about academic requirements
- Procedures for dropping a class, appealing grades, registration, etc.
- Preparation for telephone and web-line registration
- Assistance in establishing 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)



COLLIN  
COUNTY  
COMMUNITY  
COLLEGE  
DISTRICT

## 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. Furthermore, a licensed educational diagnostician conducts psychoeducational evaluations for students requiring testing for learning disabilities. Following evaluation of the test results, the diagnostician makes recommendations to the student.

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 in addition to other assistive technology. For information on these and related services, contact the ACCESS Office.

ACCESS also provides tutoring services for all students at the college.

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 at CPC, PRC, and SCC for proctoring, credit by exam testing, instructional testing, assessment for course placement and alternative tests for TASP purposes. CCCCD is an official testing site for SAT (Scholastic Aptitude Test), ACT (American College Testing Program), CLEP (College-Level Examination Program), and TASP (Texas Academic Skills Program).

### 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 coursework 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 and Records 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, or military, or
- 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 mathematics and English scores of no less than 19)
- A combined SAT score of 1070 (with a minimum of 500 on the mathematical and verbal tests each), 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.
- Based on an official high school transcript showing graduation with a GPA of 3.5 or higher on a 4.0 scale. High school graduation must be within two years of college enrollment.

ACT and SAT scores can be no more than five years old. TAAS scores can be no more than three years old; or based on an official high school transcript showing graduation with a GPA of 3.5 or higher on a 4.0 scale. High school graduation must be within two years of college enrollment.

Students may continue to take and accumulate lower division courses past the 60 credit-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 coursework; (3) taken the TASP a second time and failed; and (4) then attained a grade of "B or better" in an approved college-level 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 972.548.6773. 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 prerequisites 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 of age 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, the student may request "TASP Waived" (not required) status by contacting the TASP Office at 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, 1414, 2412, and 2413.

Other assessments may be required based upon faculty and/or advisor recommendations. Some assessments may be waived based upon 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**

Students with a TASP score of 270 or higher, or with an Alternative TASP score placing them into college algebra, may enroll in MATH 1314, MATH 1316, MATH 1324, or MATH 1342 without assessment. Otherwise, all students enrolling in mathematics courses above MATH 0300 must be assessed or show prerequisite proof. A student may enroll in MATH 0300 without assessment. Students are allowed to take the assessment twice before their mathematics entry level is established for enrollment during a semester. Students deciding not to enroll in a mathematics course during the semester of assessment may retain this assessment for one year, or may reassess at the beginning of the semester when enrollment is planned. However, once students enroll in the appropriate course and have begun the developmental mathematics sequence of courses, they must continue from the point of entry through MATH 0310 before enrolling in MATH 1314 or MATH 1324. (*MATH 0305 is the prerequisite for MATH 1332*).

Students will not be allowed to retake the mathematics assessment test once they enroll in a developmental mathematics course unless they have an approved reevaluation petition, recommendation of their current developmental mathematics professor, and 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 (ESL)**

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)

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 972.548.6773.

## 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 CCCCD graduates while many are available to members of the community. There is a nominal charge for community members requesting career assessments with 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, and COPS
- “eDiscover,” an Internet-based career guidance program

Career assessments and professional interpretations are available by appointment.

### 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, including:

Career library (a variety of books, computerized programs, videos, and manuals)

“eDiscover,” an Internet-based information system

Annual Career Week

Workshops and seminars

Internet access

Campus recruiting by area employers

National Career Development Month (November)

### 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. National as well as Texas job market information is available through books and computer programs.

### STEP FOUR: PREPARE AND MARKET YOURSELF

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

Also available are printed materials about:

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

### Technical Career Advisor

A career advisor is available to assist students in 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 Advisor for job search assistance and for information regarding the online resume service.

### 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 \$6.22 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 may be eligible to participate in the America Reads or America Counts programs (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 web-based listing of current job openings is available on computer for students and CCCCD graduates 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.

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

### COOPERATIVE WORK EXPERIENCE

Cooperative Work Experience (Co-op) is an educational program (academic course) designed to provide actual work experience that relates classroom study to career choice. 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 that require volunteer work to start, such as radio and television. Some disciplines now require academic co-op courses 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 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 academic 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. Work hours per week and number of weeks change with Summer III.

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 coursework 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 are 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

## FINANCIAL AID

- 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 mentoring and job skills workshops. 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.

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, look on the CCCCD website ([www.ccccd.edu](http://www.ccccd.edu)) or 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 percent of each semester. If the student completely withdraws before the 60 percent 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 – \$4,000/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: \$300 – \$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 – \$4,000/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 halftime. 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 percent. The interest rate for the 2002–2003 academic year was 3.46 percent. 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, Federal 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. Interest rates for 2002-2003 were 4.86 percent.

### **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).

#### **TEXAS Grant**

Students graduating high school after December 1998 may be eligible for this grant if the following conditions are met:

- Texas resident
- Never convicted of a felony
- Graduated high school in the recommended or distinguished programs
- Have need as determined by the federal form (FAFSA)
- Be enrolled at least half-time

This grant covers the cost of tuition and fees and is renewable during the undergraduate career as long as the student maintains a cumulative 2.5 grade point average and completes at least 75 percent of the coursework. Additionally, the student must maintain academic progress. Please refer to the Academic Progress Policy in this section.

#### **TEXAS Grant II**

Community college students working on an associates degree may be eligible for this grant if they:

- are not eligible for the TEXAS Grant
- are a Texas resident
- enroll at least half-time, and
- have an estimated contribution as determined by FAFSA of \$2,000 or less.

Additionally, students on this grant become eligible for the TEXAS Grant once they transfer to a university. To remain eligible, the student must maintain a 2.5 cumulative grade point average and complete at least 75 percent of the coursework.

### **ADDITIONAL FINANCIAL AID INFORMATION**

Many of the financial aid programs listed are under constant federal and state review and are subject to change. For additional information on any of the above loans and grants, please contact the Financial Aid Office.

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). CCCCD's Title IV number is 016792.

Priority deadlines are:

- Fall Semester – June 3
- Spring Semester – November 3
- 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 percent of his/her degree program.
2. Enrollment status (hours attempted) is determined by the student's enrollment on the census date (12th class day during the fall and spring semester, 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 regular (16-week) semesters plus summer sessions].
5. Students enrolled less than full-time must complete a proportionate number of hours per academic year (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. Students who withdraw from all classes are not eligible for financial aid until an equal number of hours is completed at the student’s expense.

#### **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 first-time 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 CCCC while receiving financial aid is not eligible for additional financial aid until an equal number of hours are 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 CCCC students are awarded through the CCCC Foundation. Numerous scholarships are available to new and continuing students at CCCC. These scholarships 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 June 2, 2003 for the 2003–2004 academic year (September 1, 2003 – August 31, 2004). 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 visit the Foundation website at [foundation.ccccd.org](http://foundation.ccccd.org).

### **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**

Art, dance, 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 and Records Office for additional information or for a specific waiver. A few of the state waivers are:

#### **Financial Aid Waivers**

- Aid for Dependent Children
- Blind/Deaf Students
- Children of Disabled Firemen and Peace Officers
- Children of Prisoners of War or Persons Missing in Action
- Early High School Graduation
- Firemen Enrolled in Fire Science Courses
- Hazlewood Act
- Highest Ranking High School Graduates
- Orphans of National Guard Members

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

- Ad-Valorem Tax
- Concurrent Enrollment

- Dual Agreement – Dallas County
- Dual Agreement – Grayson County
- Contract Training for Out-of-District
- Senior Citizen

#### Veterans Educational Benefits

Students requesting Veterans Educational benefits at CCCCD must notify, in writing, the Veteran Certifying Official. Before that request can be processed and the Department of Veterans Affairs notified of the student's enrollment, the student must ensure that the following has been accomplished:

1. Gain admission to CCCCD through the Admissions and Records Office.
2. Ensure that all appropriate documentation from the Department of Veterans Affairs is on file.
3. Ensure that all prior college, as well as all military experience, has been evaluated for transfer credit and that a valid degree reflecting this is on file. It is the student's responsibility to ensure the degree program selected is a program approved by the Texas Workforce Commission and the Department of Veterans Affairs.
4. Register for classes that are required to complete the degree program selected. Any class that is recommended, but not required, by a degree program cannot be certified with the VA. Additionally, classes required for graduation at another institution, but not by CCCCD, cannot be certified.
5. A returning student, who has had a break of two 16-week semesters or more, must complete additional documentation.
6. Notify the Veteran Certifying Official that all of the above has been completed.

It is assumed that continuing students wish to be certified for any subsequent enrollment unless they notify the Financial Aid/Veterans Affairs Office in writing. Though every effort is made to identify continuing students, it is still the responsibility of the student to notify the Veteran Certifying Official in writing at the time of enrollment. Requests for certification of a prior term will be processed in accordance with standard VA policy and will not be processed ahead of the normal scheduled workload for that term.

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 academic division offices on each campus.

### BACTERIAL MENINGITIS — IMPORTANT INFORMATION

This information is being provided to all new college students in the state of Texas. Bacterial Meningitis is a serious, potentially deadly disease that can progress extremely fast—so take utmost caution. It is an inflammation of the membranes that surround the brain and spinal cord. The bacteria that causes meningitis can also infect the blood. This disease strikes about 3,000 Americans each year, including 100-125 on college campuses, leading to 5-15 deaths among college students every year. There is a treatment, but those who survive may develop severe health problems or disabilities.

#### What are the symptoms?

- High fever
- Rash or purple patches on skin
- Light sensitivity
- Confusion and sleepiness
- Lethargy
- Severe headache
- Vomiting
- Stiff neck
- Nausea
- Seizures

There may be a rash of tiny, red-purple spots caused by bleeding under the skin. These can occur anywhere on the body.

The more symptoms, the higher the risk, so when these symptoms appear seek immediate medical attention.

#### How is Bacterial Meningitis diagnosed?

- Diagnosis is made by a medical provider and is usually based on a combination of clinical symptoms and laboratory results from spinal fluid and blood tests.
- Early diagnosis and treatment can greatly improve the likelihood of recovery.

#### How is the disease transmitted?

The disease is transmitted when people exchange saliva (such as by kissing, or by sharing drinking containers, utensils, cigarettes, toothbrushes, etc.) or come in contact with respiratory or throat secretions.

## RECRUITMENT AND PROGRAMS FOR NEW STUDENTS

The Office of Recruitment and Programs for New Students offers a variety of services for new and prospective students. Programs conducted by this department include:

### 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 can be found in the current CCCCD Schedule of Classes. To request more information, e-mail [orientation@cccd.edu](mailto:orientation@cccd.edu).

### SPECIAL ADMISSIONS

Special admission is offered to high school students who have exceptional ability requesting early admissions consideration, students under 18 years of age without a high school diploma or the equivalent, and home-schooled students under the age of 18. Special admission guidelines and requirements for these students are listed on pages 13-14.

### OTHER SERVICES INCLUDE:

- Campus Tours (group and individual)
- Spectrum: Student Ambassadors for Diversity
- Youth Leadership Academy
- Parent Leadership Program
- Mentor Program
- Transfer Express
- College Day/Night Programs

For additional information or assistance with these programs, please call 972.377.1750 or visit our website at [www.cccd.edu/studentservices/students.html](http://www.cccd.edu/studentservices/students.html).

## STUDENT LIFE

### PROGRAMS

The Office of Student Life strives to enhance student learning and development. It is the goal of Student Life 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 Life offers a wide variety of opportunities to enrich students' college experience including: educational programs; entertainment and cultural programs; field trips; guest speakers; leadership training; officer training; social, cultural, and civic events; and student organizations.

### How do you increase your risk of getting Bacterial Meningitis?

- Exposure to saliva by sharing cigarettes, water bottles, eating utensils, food, kissing, etc.
- Living in close conditions (such as sharing a room/suite in a dorm or group home).

### What are the possible consequences of the disease?

- Death (in 8 to 24 hours from perfectly well to dead)
- Permanent brain damage
- Kidney failure
- Learning disability
- Hearing loss, blindness
- Limb damage (fingers, toes, arms, legs) that requires amputation
- Gangrene
- Coma
- Convulsions

### Can the disease be treated?

Antibiotic treatment, if received early, can save lives and chances of recovery are increased. However, permanent disability or death can still occur.

Vaccinations are available and should be considered for:

- Those living in close quarters
- College students 25 years old or younger

Vaccinations are effective against 4 of the 5 most common bacterial types that cause 70 percent of the disease in the U.S. (but does not protect against all types of meningitis).

Vaccination take 7-10 days to become effective, with protection lasting 3-5 years. The cost of vaccine varies, so check with your health care provider. Vaccination is very safe--most common side effects are redness and minor pain at injection site for up to two days.

### How can I find out more information?

- Contact your own health care provider.
- Contact the Admissions and Records Office at 972.881.5902.
- Contact your local or regional Texas Department of Health office at 972.548.5532.

Contact web sites: [www.cdc.gov/ncidod/dbmd/diseaseinfo](http://www.cdc.gov/ncidod/dbmd/diseaseinfo) or [www.acha.org](http://www.acha.org).

### 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.

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 the Office of Student Life. New or reforming organizations may not officially meet or hold an event until approved by the Office of Student Life.

### 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 the Student Government Association, college task forces, events with the college president, and personal conversations with faculty and staff, students are encouraged to communicate their needs, desires, and proposals for change.

See Student Life 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 that are theirs by virtue of this membership.

The college expects its students to conduct themselves in such a way as to reflect favorably upon the institution they represent. There are two basic standards of behavior required of all students:

1. they shall adhere to college regulations, codes, and administrative rules; board and district policies; municipal county, state, and federal laws; and
2. they shall not interfere with or disrupt the orderly educational processes of the district.

Students are entitled to only those immunities or privileges by law as enjoyed by other citizens. For more information, see the *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's facilities and specialized services.

### TUTORING

Individual, small group, and online tutoring, is available at no charge to CCCC 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.

### CAMPUS SECURITY

CCCCD's Public Safety Officers are licensed peace officers of the State of Texas and are trained and educated to protect life and both college and personal property. These officers are vested with full authority to enforce all Texas laws and regulations and all college policies, including the Code of Student Conduct.

The college complies with the provisions of the *Campus Security Act of 1990*, Public Law 101-542.

In compliance with the "Campus Sex Crimes Prevention Act" (section 1601 of Public Law 106-386) and the Jacob Wetterling Crimes Against Children and Sexually Violent Offender Registration Act, all persons required to register as part of the State of Texas's Sex Offender Registration Program are required to provide notice of their presence on campus.

For more information, contact Ed Leathers, Director of Public Safety, 972-881-5142.

# EDUCATIONAL SERVICES and opportunities

## ADVANCED ACADEMIC OPPORTUNITIES

### THE CENTER FOR ADVANCED STUDY IN MATHEMATICS AND NATURAL SCIENCES (CASMNS)

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 center includes advanced courses in biology, chemistry, physics, and mathematics for students in pre-professional majors. Students must have a 3.0 GPA to be eligible to enroll in CASMNS courses.

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 68 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 may graduate with an honors degree if they take a total of four honors courses in two areas of study. Students must have a 3.5 GPA to be eligible for enrollment in honors courses.

Inquiries should be directed to the Chair of the Honors Council at 972.881.5803 or the Academic Advising Center at 972.881.5778.



COLLIN  
COUNTY  
COMMUNITY  
COLLEGE  
DISTRICT



## 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. - 8 p.m.
Fridays	9 a.m. - 5 p.m.
Saturday	10 a.m. - 2 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 percent margin. Used books, which are priced at 75 percent of the new book price, are purchased from various sources. For information on store hours, call 972.548.6682 (CPC), 972.985.3710 (CYC), 972.377.1682 (PRC), or 972.881.5681 (SCC).

### 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 for a full refund. Books purchased for Wintermester and Maymester may be returned by the second class day for a full refund.
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 textbooks. 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 may 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. 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.

### GRAPHING CALCULATOR BUYBACK

The bookstore will buy your used graphing calculator during final exams of each semester. Fifty percent of the original purchase price will be paid subject to the following conditions:

1. Calculator must be in clean, working condition with all cords and manuals.
2. Calculators must be required for use by the college during the next semester.
3. Calculators cannot be bought back if the store is overstocked or if needs for the following semester have been filled.
4. Bookstore makes the final decision regarding model, condition, and quantity of calculators bought back.

### TEXTBOOK BUYBACK

Books are bought back every day at their current market value. During final exams each semester up to 50 percent of the original purchase price will be paid, subject to the following conditions.

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 instructor, 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.

## PAYMENT/CHECK CASHING

With proper identification, checks may be cashed for \$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, students must also show a CCCCD Student ID card.

## 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 each child'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 SYSTEMS NETWORKING ACADEMY

CCCCD is a Cisco Local CCNA Academy, a Cisco Local CCNP Academy, a Cisco Regional CCNA Academy and a Cisco Academy Training Center for CCNP.

The Cisco Local CCNA Academy and the Cisco Local CCNP Academy prepare students for Cisco certification through a program of intensive, hands-on training. CCNA (Cisco Certified Networking Associate) preparation at CCCCD consists of four courses. Each CCNA course meets 80 hours. CCNP (Cisco Certified Networking Professional) preparation at CCCCD consists of an additional four courses. Each CCNP course meets for 96 hours.

Cisco 1-4 (CCNA 1, CCNA 2, CCNA 3, and CCNA 4) provide the opportunity to obtain the skills to pass the CCNA exam. Cisco (CCNA) 1-4 must be taken in sequence. There is no prerequisite for entry into Cisco (CCNA) 1, but basic computer skills, computer networking knowledge, and familiarity with Internet concepts are useful tools for CCNA students.

Cisco 5-8 (CCNP 1, CCNP 2, CCNP 3, and CCNP 4) provide the opportunity to obtain the skills to pass the associated CCNP exam for each course. Candidates must pass all four CCNP certification exams to become CCNP certified. To enter the CCNP program, a student must hold a current CCNA certificate or have successfully completed all four CCNA courses at a Cisco Systems Networking Academy. It is recommended that Cisco 5, 6, and 7 (CCNP 1, 2, and 3) be completed in sequence. To take the first three (3) Cisco (CCNP) courses out of sequence, approval must be obtained through the Engineering Technology Division Office (972.377.1715.) It is required that Cisco 5, 6, and 7 (CCNP 1, 2, and 3) be successfully completed to register for Cisco 8 (CCNP 4).

Registration for CCNA and CCNP classes is the same as for other CCCCD credit courses. This can be accomplished through Telephone, Weblines, or On-Site registration. CCNA and CCNP classes use the 'ITCC' prefix and can be found in "Class Schedules" on the CCCCD website or in the printed *CCCCD Schedule of Classes*. Cisco classes are offered days, evenings and weekends to accommodate student needs.

CCCCD's Regional CCNA Academy provides training to Local CCNA academies. The CCNP CATC instructor training provides training to instructors from the across the United States and abroad.

For additional information on CCCCD's Cisco Systems Networking Academy, please call the Engineering Technology Division at 972.377.1715.

## CONTINUING EDUCATION AND WORKFORCE DEVELOPMENT

Collin County Community College District 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. CCCCD's Continuing Education and Workforce Development Division (CEWD) provides learning opportunities for adults to develop their personal and professional potential and upgrade job-related skills.

The CEWD provides services that encompass a broad range of purposes:

- Addressing adults' career needs by helping 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 extracurricular 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 CEWD relates to the purpose of promoting the philosophy of "lifelong learning" at CCCCD. 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 Division offers courses which award credit or Continuing Education Units (CEUs), depending upon the class. 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 Solution Group (BSG) responds immediately to meet the current demands of business, education and industry. BSG provides answers to workforce development needs, helping companies gain a competitive edge. Services include: one-on-one consulting, needs analysis, skills assessments, customized training, and convenient delivery on site or at one of CCCCD's campuses. 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 (Texas Academic Skills Program). Courses are offered in mathematics, reading, writing, and English as a Second Language. The instructional formats vary and include computer-based, lecture, on-line, and self-paced. 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 coursework must take developmental classes. All of the developmental disciplines (mathematics, 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 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 mathematics, science, English and the foreign languages 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 mathematics, science, writing, and language labs.

CCCCD Emerging Scholars have gone on to become solid examples of academic excellence. In the past few years, over 20 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.

## 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 Computer Writing Classroom, the Math Lab, the Student Media Workshop, and the Writing Center.

### AMERICAN SIGN LANGUAGE LABORATORY

The American Sign Language (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.

### COMPUTER WRITING CLASSROOM

Several sections of ENGL 1301 and ENGL 1302 are taught in 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 mathematics, college-level mathematics, and natural science courses that have mathematics-based assignments. The staff includes faculty, instructional associates, and student

tutors. Students may use videos, graphing calculators, and computers to complete homework assignments. Hours for drop-in assistance vary and are posted at each campus.

## 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 CPC and SCC and in room F145 at PRC. 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 [iws.ccccd.edu/wc/writingcenter.html](http://iws.ccccd.edu/wc/writingcenter.html).

## FITNESS CENTERS

A major emphasis of the Physical Education and Athletics Division 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, twelve lighted tennis courts, and use of the Oak Point Recreation Center natatorium (Mondays–Fridays, 8 a.m.- 4 p.m.).

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 and women's basketball and men's and women's tennis. These teams are affiliated with the National Junior College Athletic Association (NJCAA) and participate in regional events which may lead to national competition. To participate in intercollegiate athletic programs at 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 to be successful in the increasingly global marketplace. These programs permit students to live and study abroad while completing degree/program requirements. In addition to college-sponsored programs, students may participate in exchange and other study abroad programs through some of the college's approved study abroad consortia. Exchange programs permit students to pay CCCCD tuition for overseas study. Scholarships and financial aid may be used to finance the international academic experience. For information about what programs are being offered and how to take advantage of this opportunity, call 972.881.5810.

## STUDENT LEADERSHIP ACADEMY (SLA)

POTENTIAL — “The possibility, capability, and capacity for growth” captures the spirit of the Student Leadership Academy (SLA). The academy is a nine-month course (SPCH 2333) designed to promote leadership practices that foster teamwork and integrity in personal and professional development through scholarship and service.

The academy will consist of ten meetings over two semesters. Class meetings will rotate between the Courtyard Center and the Central Park, Preston Ridge, and Spring Creek campuses. The SLA will meet one Friday afternoon a month and one Saturday morning.

Topics to be studied include: Communication/Leadership Styles, Leading Through Diversity, Visioning and Strategic Planning, Relationship Building and Group Dynamics, Wellness and Stress Management, and Problem Solving and Decision-making. In addition, students will develop cumulative portfolios, deliver presentations, and work in teams. Guest speakers from business, industry, and academia will share their leadership experiences and the qualities they seek in potential leaders.

Students that have at least a 2.5 GPA, six completed credit hours, and a desire to work hard and explore their leadership potential are invited to fill out an application. A commitment to complete the nine-month academic year SLA program is required. For more information, please call 972.377.1749.

## 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 disciplines with a common theme or central question. Students are then taught by the professors representing the areas of study and meet in a block of time equivalent to that of both classes, participating in class discussions and group projects. The extended time spent together and participating in collaborative activities forms a community-like atmosphere among students.

This sense of community is the impetus that leads students to civic action. Students in Learning Communities exhibit commitment and interest in civic engagement, applying concepts in the world around them by completing projects that benefit the community.

## LEARNING RESOURCES CENTER (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 (ALC) 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 various methods of delivery: web-based, web-assisted, instructional cable television, two-way interactive video between CCCCD campuses, and video checkout.

Distance learning courses may apply toward associate degree requirements. Many fit into certificate program requirements and the majority fulfill requirements for baccalaureate 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, however, for some courses, students will be required to attend a mandatory on-campus orientation. Consult the current *CCCCD Schedule of Classes* or <http://online.ccccd.edu> for available distance learning courses.

Web-based courses offer students the flexibility to obtain their education on their timetable. Instructional materials, readings, assignments, and in some cases, class discussions may be accessed whether students are at home, at work, on the road, or on vacation. Online courses require the same commitment of time as our on-site courses. Due to their unique method of delivery, these courses require maturity, self-motivation, and self-discipline to complete them successfully. It is mandatory that you review the course websites as well as the following website prior to enrolling: <http://online.ccccd.edu>.

Telecourses and live interactive courses are credit courses offered through instructional television and video. They may be viewed on Comcast cable television, Channel 39 (Plano and Richardson only), Channel 71 (Frisco and The Colony), or Channel 76 (Allen and McKinney). CCCCD is currently working on expanding our cable coverage. During the live televised courses, students may call the instructor with questions via telephone. Students may also videotape the course for home viewing at a later date. Videotaped copies of these courses can be viewed at the Spring Creek Campus Media Services Office.

Some telecourse 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 they have registered for.

Video checkout courses are non-classroom, video-supported courses utilizing texts, study guides, and video materials. All students enrolled in video checkout courses are required to attend an orientation session for each video checkout course in which they are enrolled. Videotapes will be available for checkout in the LRC after the orientation session meets. Students may checkout the videos for the entire semester.

## **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 and bibliographic instruction 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. 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 the Preston Ridge Campus LRC in room F116, is a facility where students, staff, and faculty create web pages, burn and duplicate CDs, scan and edit documents and images, produce Flash animations, record audio files, author PowerPoint presentations, and much more.

A Multimedia Assistant is scheduled 20 hours a week to provide technical advice and training.

## **SERVICE-LEARNING**

The Service-Learning program is the recipient of the 2000 Collaboration Award from Campus Compact National Center for Community Colleges. A founding member of the Texas Campus Compact, the Service-Learning program in collaboration with Learning Communities was jointly awarded the 2001 Bellwether Award.

Service-Learning seeks to engage individuals in organized activities that combine both community based service and academic learning. This unique experience strengthens academic, social, and practical skills, creates a sense of civic responsibility, 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.

Some hands-on training is conducted in the college's Public Safety Training Complex – 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.

### **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, 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.

To qualify for the TCP, applicants must hold a bachelor's degree in the content area for which 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 214.491.6202 or logon to its web site at [www.ccccd.edu/teachered](http://www.ccccd.edu/teachered).

# TRANSFER PROGRAMS and resources

## GETTING STARTED AT CCCCD

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, requires all public colleges and universities to have a core curriculum. Core curriculum is defined as “the curriculum in the liberal arts, humanities, sciences, and political, social, and cultural history that all undergraduate students of a particular Texas institution of higher education are required to complete before receiving an associate or bachelor’s degree.”

The purpose of the core curriculum is to provide the skills, knowledge, and perspectives that help define the educated person. The courses included in the core curriculum will contribute to the acquisition of these skills perspectives and to a basic core of knowledge.

The core curriculum is predicated on a series of basic intellectual competencies—reading, writing, speaking, listening, critical thinking, and computer literacy—that are essential to the learning process in any discipline. Although students can be expected to come to college with some experience in exercising these competencies, they often need further instruction and practice to meet college standards and, later, to succeed in both their major field of academic study and their chosen career or profession.

CCCCD will designate core curriculum courses completed by a student on the official CCCCD transcript. If a student satisfies all component areas, the message “Core Curriculum Completed” will appear on the transcript.

Students should visit with an academic advisor to ensure that they take the correct courses for their Associate of Arts or Associate



COLLIN  
COUNTY  
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DISTRICT



of Science degree program at CCCCD in addition to the major for their chosen transfer college or university.

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

CCCCD's common core curriculum of 45 credit hours, graduation requirement of 3 credit hours, and electives/area of emphasis of 12 hours follows:

**Communications 9 credit hours**

- English 6 credit hours  
ENGL 1301 and 1302
- Speech – *Select one course:* 3 credit hours  
SPCH 1311 or 1315

**Humanities 3 credit hours**

- Select one course:*
- ANTH 2351  
ENGL 2322, 2323, 2327, 2328, 2332, 2333, 2342, or 2343  
FREN 2303 or 2304  
HUMA 1301  
PHIL 1301, 1304, 2303, 2306, or 2307  
SPAN 2321 or 2322

**Mathematics 3 credit hours**

- Select one course:*
- MATH 1314/1414\*, 1316\*, 1324, 1325, or 1342\*  
(or higher level course as determined by student's area of emphasis)

**Natural Sciences 8 credit hours**

- Select two courses (course sequence recommended):*
- 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\*

**Social/Behavioral Sciences 3 credit hours**

- Select one course:*
- PSYC 2301 or SOCI 1301

**Social Sciences 12 credit hours**

- Legislative Mandate – Students must take BOTH of the following courses:*
- GOVT 2301 (Texas) and GOVT 2302 (U.S.)
- Legislative Mandate – Students must take TWO of the following courses:*
- HIST 1301, 1302, or 2301

**Visual/Performing Arts 3 credit hours**

- Select one course:*
- ARTS 1301, 1303, or 1304  
DRAM 1310  
MUSI 1306 or 1307

**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 student's area of emphasis)  
Any PHED/DANC Activity Course (1 credit hour)

**AA/AS Core Curriculum 45 credit hours**

**AA/AS Requirement\*\* 3 credit hours**

**Electives/Areas of Emphasis2 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 (\*).

**FIELDS 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. Field of Study courses are defined by SB 148 as, "a set of courses that will satisfy the lower-division requirements for a bachelor's degree in a specific academic major at a general academic teaching institution." Receiving institutions may not require incoming transfer students to repeat courses with the same content as Field of Study courses. CCCCD offers Fields of Study curricula for the Business, Computer Science, Criminal Justice, Education, Engineering, Engineering Technology, Music, and Nursing areas of emphasis. Refer to the specific Fields of Study curriculum in the Associate of Arts and Associate of Science sections of this catalog.

**GUARANTEE FOR TRANSFER CREDIT**

CCCCD guarantees to its students who have met the requirements for its Associate of Arts/Associate of Science degree and students who have met the 60 credit-hour transfer plan the

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

transferability of those course credits to the Texas colleges and/or universities that participate in the Guarantee for Transfer Credit program. This guarantee is designed for CCCC students who have made firm decisions about their major, the transfer college or university to which they plan to transfer, and have followed a written transfer guide for that transfer institution.

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.

### COMMON COURSE NUMBERING

To help meet the transfer needs of its students, CCCC 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 CCCC academic advisor for assistance.

### CONCURRENT ADMISSIONS AGREEMENTS

**Southern Methodist University**  
**University Of North Texas**  
**University Of Texas At Dallas**

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

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 CCCC's tuition rates.

CCCC 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 CCCC.

These agreements extend select SMU, UNT, and UTD student privileges, such as access to the libraries as well as cultural and athletic events, to CCCC 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 (DCCC):

Collin County residents may enroll in select Workforce Education (WECM) programs offered by the DCCC at in-county tuition rates. Likewise, Dallas County residents may enroll in select Workforce Education programs offered by CCCC. 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 ultimate goal of Collin County Community College District is to produce educated and productive students, knowledgeable in their chosen field of study. CCCC has partnered with various colleges and universities to establish transfer articulation agreements, concurrent admission agreements and degree plans to provide students with access to and linkages with their baccalaureate degree-granting institutions. Not only do these partnerships allow courses to transfer from one institution to another without misrepresentation or loss of credit; they foster a more confident and successful student.

### TRANSFER RESOURCES AT CCCC

Transfer services and resources are available to CCCC students to help ensure easy transfer of course credits from CCCC to the college or university of their choice. Some of the resources include individual assistance from academic advisors, 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. Students planning to earn associate degrees are also encouraged to contact an academic advisor. Academic advisors help students define short- and long-term transfer goals and assist with course selections. CCCC academic advisors are located at each campus in the Student Development Center.

#### Transfer Express Program

During the spring semester, Collin County Community College hosts Transfer Express, a free program designed for CCCC 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 many well-known state colleges and universities are present to offer students valuable information including transferability of courses, academic programs, student activities, housing, and financial aid.

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

All students interested in transfer information are encouraged to attend Transfer Express. For more information, please contact the New Student Programs Office at 972.377.1750.

### Transfer Labs

Transfer Labs are located at CPC, PRC, SCC, and CCCCD@ALLEN. Students are provided with various transfer resources to help them transfer easily into the college or university of their choice. Transfer Lab resources include:

- Individual Assistance
- Library of catalogs for Texas and out-of-state colleges and universities
- College and university resource materials, including general and specific transfer information, applications, and degree plans
- “College Search” computer
- General transfer of credit information
- Reference Books and Publications
  - College Handbook
  - College Cost and Financial Aid Handbook
  - Index of Majors and Graduate Degrees
  - International Student Handbook
  - Profiles of American Colleges
  - A Guide to Higher Education in North Texas
  - “Planning Today for Transferring Tomorrow” brochure
  - “Selected Basic Transfer Courses” handout
  - “Questions for Students Planning to Transfer” handout
  - Course Equivalency Notebook—listing equivalencies for CCCCD and various colleges and universities
  - Degree plans and transfer guides with CCCCD equivalencies for colleges and universities
  - Directory listing addresses, phone numbers, application deadlines, and transfer admission requirements for the most-requested transfer colleges and universities
  - Transfer scholarship information

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

### Tips for Transfer Students

- Check with the college or university for deadlines and fees. Make sure to meet all deadlines.
- Keep detailed records of all contacts and make copies of all documents sent to the college or university.
- Generally only credits (semester hours) transfer; grade point average (GPA) is used for admission to the college/university and admission to certain programs and/or specific degrees.

- Check with the college/university for GPA information. A minimum GPA of 2.0 (a “C” average) is required at most colleges and universities
- Attend orientation if it is available.
- Try not to carry too many credit hours during the first semester transferred especially if students plan to work.
- The first semester GPA is very important.
- Get involved – find an organization that sounds interesting and join the fun.

## 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 officials at the various senior institutions have reviewed the information on these guides, 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 transfer information.

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

**RESOLUTION OF TRANSFER DISPUTES**

CCCCD works closely with colleges and universities to make the transfer process as smooth as possible for courses transferred to CCCCCD from the other institutions and follows guidelines to resolve transfer disputes.

The Texas Higher Education Coordinating Board has established procedures (see below) to be followed when transfer credit for lower-division courses listed in the Academic Course Guide Manual (ACGM) 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. The receiving institution will also give the reasons for denying credit for a particular course or set of courses at the request of the sending institution.
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.
4. 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.

**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, completing the core curriculum or a Field of Study, or participating in a pre-professional program.

**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 CCCCCD academic advisor or the catalog of their choice to learn about any limitations.

Students who plan to transfer should keep a copy of the CCCCCD Catalog from the year they choose, the college or university's catalog, and the transfer guide that was valid at the time they enrolled in CCCCCD 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 science, math, and elective credit courses is often based on the requirements of the specific transfer college or university.

Current college/universities catalogs, transfer guides/guaranteed programs, and all transfer information are available in the CCCCCD 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 49-69.

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 CCCCCD.
6. Earn a minimum cumulative GPA of 2.0.

Coordinators for disciplines and programs not listed in the Associate of Arts, Associate of Science and Associate of Applied Science areas of emphasis are listed below:

**TRANSFERABLE AREAS**

Chinese, Italian, Japanese, Russian	
Shirley McBride	. . . . . SCC-B193 . . . . . 972.881.5675
Humanities	
Joanne Stevens	. . . . . SCC-J218 . . . . . 972.881.5129
Social Work	
Debbie White	. . . . . SCC-H221 . . . . . 972.881.5163

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

**NON-TRANSFERABLE AREAS**

Academic and Personal Enhancement		
Linda Qualia	.....SCC-K105	.....972.881.5779
Developmental Mathematics		
Eugene Foley	.....SCC-J237	.....972.881.5924
Developmental Reading		
Marilyn Rice	.....CPC-A308	.....972.548.6578
Developmental Writing		
Myrtle Hightower	.....SCC-H220	.....972.516.5042
English as a Second Language (ESL)		
Donald Weasenforth	.....SCC-I207	.....972.881.5970

**AREA OF EMPHASIS FOR THE ASSOCIATE OF ARTS DEGREE**

The Associate of Arts degree provides general academic courses and electives for students who plan to transfer to a college or university. Because of the various transfer requirements at colleges and universities, and to ensure enrollment in appropriate courses, students should verify course transferability with a CCCCD academic advisor and/or the college or university that they plan to attend.

**ACCOUNTING**

See Business on page 50.

**AMERICAN SIGN LANGUAGE (DEAF EDUCATION)**

60 credit hours

**Program Coordinator:**

Henry Whalen .....SCC-B135 .....972.881.5152  
(TTY) 972.881.5138

**Academic Advisor:**

Tori Hoffman .....PRC F142 .....972.377.1779

The Associate of Arts degree with an emphasis in American Sign Language (Deaf Education) 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.

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.

Contact Program Coordinator regarding 2+2 Program with Texas Woman's University.

**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**

Additional Graduation Requirement

See page 45.

**45 credit hours**

3 credit hours

**Recommended Electives**

**12 credit hours**

SGNL 1401	American Sign Language (ASL): Beginning I	.4
SGNL 1402	American Sign Language (ASL): Beginning II	.4
SGNL 2301	American Sign Language (ASL): Intermediate I	.3
SGNL 2302	American Sign Language (ASL): Intermediate II <sup>1</sup>	.3
EDUC 1301	Introduction to Education <sup>2</sup>	.3
EDUC 2301	Introduction to Special Education <sup>2</sup>	.3
SLNG 1311	Fingerspelling <sup>1,*</sup>	.3
SLNG 1447	Deaf Culture <sup>*</sup>	.4

- <sup>1</sup> Recommended for students pursuing degrees in Deaf Studies
- <sup>2</sup> Recommended for students pursuing degrees in Deaf Education
- \* Students should verify course transferability with a CCCCD academic advisor and/or the college or university that they plan to attend.

**ANTHROPOLOGY**

60 credit hours

**Program Coordinator:**

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

**Academic Advisor:**

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

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?", and "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

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

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**  
 Additional Graduation Requirement 3 credit hours

See page 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 2404	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 Co-Coordinators:**

Art Appreciation/Art History

Betty Siber .....SCC-A248 .....972.881.5158

Studio Art

Carter Scaggs .....SCC-A244 .....972.881.5867

**Academic Advisor:**

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

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; and 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**  
 Additional Graduation Requirement 3 credit hours

See page 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 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

**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

Tom Hudgins .....SCC-G225 .....972.516.5060

**Academic Advisor:**

Al Gober .....PRC-F143 .....972.377.1780

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

The Business Field of Study will lead to a Bachelor of Business Administration (BBA) degree, including all specializations and concentrations offered at a 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.

**AA Core Curriculum** **45 credit hours**  
 Additional Graduation Requirement 3 credit hours  
 See Page 45.

Within the Field of Study there are courses listed which will satisfy requirements for both the AA Core Curriculum and the Field of Study.

<b>Field of Study</b>		<b>12 credit hours</b>
ACCT	2301 Financial Accounting . . . . .	3
ACCT	2302 Managerial Accounting . . . . .	3
BCIS	1305 Business Computer Applications . . . . .	3
ECON	2301 Principles of Macroeconomics . . . . .	3
ECON	2302 Principles of Microeconomics . . . . .	3
MATH	1325 Calculus for Business and Economics I <sup>1</sup> . . . . .	3
SPCH	1311 Fundamentals of Speech Communication . . . . .	3
	(with appropriate content only)	
	<b>OR</b>	
SPCH	1315 Public Speaking I . . . . .	3
	<b>OR</b>	
SPCH	1321 Business and Professional Speaking (preferred) . . . . .	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

<sup>1</sup> CCCC 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 Associate of Arts degree with an emphasis in Criminal Justice provides general academic courses and electives which enable students who intend to major in criminal justice to transfer to a college or university which offers baccalaureate degrees in Criminal Justice. Students planning to transfer will have a solid foundation upon which to build as they pursue further studies in criminal justice.

The Field of Study curriculum for Criminal Justice includes 15 credit hours of lower-division course work, which will transfer and apply to baccalaureate criminal justice programs at all public universities in Texas. Universities offering equivalent courses at the upper-division level will substitute the lower-division level courses for the upper-division ones, unless they can demonstrate substantial and significant difference in the content of the upper-division courses.

The Field of Study includes the five specified courses listed below. In addition, students may add six credit hours of course work from the "Recommended Electives" to the Field of Study. Students may also add an additional six credit hours of course work from the "Recommended Electives" which may be transferred by local agreement to the university or which may be required by the receiving university, as long as the additional course work does not duplicate content already covered in the other Field of Study courses.

#### **Career Opportunities**

Criminal justice graduates are academically prepared for entry-level positions in law-enforcement, court services, and corrections at the local, state, and federal levels of government. Through classroom and laboratory experiences, students 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**

Additional Graduation Requirement 3 credit hours

See page 45.

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

**Field of Study** **15 credit hours**

CRIJ 1301 Introduction to Criminal Justice . . . . .	3
CRIJ 1306 Court Systems and Practices . . . . .	3
CRIJ 1310 Fundamentals of Criminal Law . . . . .	3
CRIJ 2313 Correctional Systems and Practices . . . . .	3
CRIJ 2328 Police Systems and Practices . . . . .	3

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

CRIJ 1307 Crime in America . . . . .	3
CRIJ 1313 Juvenile Justice System . . . . .	3
CRIJ 2301 Community Resources in Corrections . . . . .	3
CRIJ 2314 Criminal Investigation . . . . .	3
CRIJ 2323 Legal Aspects of Law Enforcement . . . . .	3

**DANCE**

60 Credit Hours

**Program Coordinator:**

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

**Academic Advisor:**

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

CCCCD's dance program has a strong reputation for excellence in dance education, choreography and performance, propelling students into several prestigious university dance programs. The dance curriculum includes multiple levels of: ballet, modern dance, jazz dance, dance appreciation, improvisation, choreography and performance classes.

The dance program provides a solid foundation of classes that focus on movement fundamentals, technique, performance and choreography. The curriculum provides a comprehensive approach to learning dance by integrating the aesthetics, historical, critical, cultural and fundamental aspects of dance as an art form.

Students interested in additional dance experience may audition for CCCC's resident dance company. The mission of the company is to produce contemporary dance works at the highest level of artistic excellence. The dance company attends and performs at the American College Dance Festival annually and has received the Gala Award at that festival in 1998, 2000 and 2001. Dance auditions for the dance company are held prior to the fall semester.

For more information about the dance program, contact Tiffanee Arnold, Dance Program Coordinator, at SCC-B118, 972.881.5830 or tarnold@ccc.edu.

**Career Opportunities:**

Dance students may select a career in a wide variety of areas. Students should bear in mind that most of these career areas require education beyond the Associate of Arts degree. Careers available to dance students include:

- Choreographer
- Dance Critic

- Dance Educator
- Dance Historian
- Dance/Movement Therapist
- Dance Notator/Labanotation
- Dance Studio Owner/Artistic Director
- Performer

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

Additional Graduation Requirement 3 credit hours

See page 45.

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

DANC 1101	Improvisation . . . . .	1
DANC 1110	Tap Technique I . . . . .	1
DANC 1111	Tap Technique II . . . . .	1
DANC 1141	Ballet Technique I . . . . .	1
DANC 1142	Ballet Technique II . . . . .	1
DANC 1145	Modern Dance Technique I . . . . .	1
DANC 1146	Modern Dance Technique II . . . . .	1
DANC 1147	Jazz Dance Technique I . . . . .	1
DANC 1148	Jazz Dance Technique II . . . . .	1
DANC 1151	Dance Performance I . . . . .	1
DANC 1152	Dance Performance II . . . . .	1
DANC 1201	Dance Composition . . . . .	2
DANC 1212	Dance Practicum I . . . . .	2
DANC 1213	Dance Practicum II . . . . .	2
DANC 2141	Ballet Technique III . . . . .	1
DANC 2142	Ballet Technique IV . . . . .	1
DANC 2145	Modern Dance Technique III . . . . .	1
DANC 2146	Modern Dance Technique IV . . . . .	1
DANC 2147	Jazz Dance Technique III . . . . .	1
DANC 2148	Jazz Dance Technique IV . . . . .	1
DANC 2151	Dance Performance III . . . . .	1
DANC 2152	Dance Performance IV . . . . .	1
DANC 2212	Dance Practicum III . . . . .	2
DANC 2213	Dance Practicum IV . . . . .	2
DANC 2303	Dance Appreciation . . . . .	3
DANC 2389	Academic Co-Op Dance . . . . .	3

**ECONOMICS**

See Business on page 50.

**EDUCATION**

60 credit hours

**Program Coordinator:**

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

**Academic Advisor:**

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

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



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

**AA Core Curriculum** **45 credit hours**  
**Additional Graduation Requirement** **3 credit hours**  
 See page 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

**EARLY CHILDHOOD EDUCATION – GRADE 4 CERTIFICATION**

The Early Childhood Education-Grade 4 Certification 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 Certification in Early Childhood Education. The completed Field of Study will transfer to any Texas public college or university.

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

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

<b>Field of Study</b>	<b>15 credit hours</b>
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
<i>Choose one course from the following<sup>1</sup>:</i>	
CDEC 1359	Children with Special Needs . . . . .3
EDUC 2301	Introduction to Special Education . . . . .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 II . . . . .3

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

**SECONDARY EDUCATION**

Secondary education students must complete a bachelor’s degree with teacher certification in an approved teaching field. Students should visit with a CCCCD academic advisor or the college or university to which they plan to transfer to ensure that they take the correct courses for their 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:**

Sabrina Belt . . . . .AHS-Q101 . . . . .214.491.6206

**Academic Advisor:**

Jyo Pai . . . . .AHS-Q101 . . . . .214.491.6202

**ENGLISH**

60 credit hours

**Program Coordinator:**

Shirley McBride . . . . .SCC-B193 . . . . .972.881.5675

**Academic Advisor:**

Tori Hoffman . . . . .PRC F142 . . . . .972.377.1779

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.

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

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 critical thinking 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**  
Additional Graduation Requirement 3 credit hours  
See page 45.

### Recommended Electives

		<b>12 credit hours</b>
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:

Shirley McBride . . . . .SCC-B193 . . . . .972.881.5675

### Academic Advisor:

Tori Hoffman . . . . .PRC F142 . . . . .972.377.1779

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, business, or government. In light of the opportunities presented by the emergence of a common European market, 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**  
Additional Graduation Requirement 3 credit hours  
See page 45.

### Recommended Electives

		<b>12 credit hours</b>
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

Because our world is immersed in the Information Age and we have entered 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.

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

**AA Core Curriculum**  
 Additional Graduation Requirement  
 See page 45.

**45 credit hours**  
 3 credit hours

**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:**

Shirley McBride . . . . .SCC-B193 . . . . .972.881.5675

**Academic Advisor:**

Tori Hoffman . . . . .PRC F142 . . . . .972.377.1779

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.

**Career Opportunities**

The 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**  
 Additional Graduation Requirement  
 See page 45.

**45 credit hours**  
 3 credit hours

**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 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-B134 . . . . .972.881.5841  
 Debra St. John . . . . .PRC-U147 . . . . .972.377.1617

**Academic Advisor:**

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

An Associate of Arts degree with an emphasis 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**  
 Additional Graduation Requirement  
 See page 45.

**45 credit hours**  
 3 credit hours

**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-F213 . . . . .972.377.1536  
 David Cullen . . . . .SCC-J244 . . . . .972.881.5965

**Academic Advisor:**

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

The History program is designed for students interested in completing an associate degree as well as students pursuing a

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

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, History of Texas, History of Women in America, Survey of the History of American Religion, and Introduction to American and the World in the Twentieth Century.

### 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, radio, etc. A degree in history is not only 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.

**AA Core Curriculum** **45 credit hours**  
 Additional Graduation Requirement **3 credit hours**  
 See page 45.

<b>Recommended Electives</b>		<b>12 credit hours</b>
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 – Music

### Program Coordinator:

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

### Academic Advisor:

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

The Associate of Arts degree with an emphasis 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
ENGL 1302	Composition/Rhetoric II	.3
GOVT 2301	American Government I	.3
GOVT 2302	American Government II	.3
HIST 1301	U. S. History I	.3
HIST 1302	U. S. History II	.3
MATH 1314	College Algebra <sup>1</sup>	.3
	Natural Science <sup>3</sup>	
PSYC 2301	General Psychology <sup>2</sup>	.3
SPCH 1311	Fundamentals of Speech Communication <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
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 1307	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 SOCI 1301.

<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 Beginning Piano classes must substitute up to four (4) credit hours from the following: MUAP 11xx, MUSI 1183, MUSI 1184, MUSI 1192, MUSI 1193, MUSI 2192, or MUSI 2193.

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

## PARALEGAL/LEGAL ASSISTANT

60 credit hours

Also see Associate of Applied Science Paralegal/Legal Assistant

### Program Coordinator:

Peter Dawson . . . . .SCC-K227 . . . . .972.516.5031

### Academic Advisor:

Al Gober . . . . .PRC-F143 . . . . .972.377.1780

The 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 the BS at TWU.

### Career Opportunities

Employment opportunities for entry-level paralegals/legal assistants include the following:

- Law firms
- Corporations
- Governmental agencies

### AA Core Curriculum

Additional Graduation Requirement

See page 45.

**45 credit hours**

3 credit hours

### 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 2307	Law Office Management . . . . .	3

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

## PHILOSOPHY

60 credit hours

### Program Coordinator:

Joanne Stevens . . . . .SCC-J218 . . . . .972.881.5129

### Academic Advisor:

Tori Hoffman . . . . .PRC F142 . . . . .972.377.1779

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

Additional Graduation Requirement

See page 45.

**45 credit hours**

3 credit hours

### 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 Coordinators:

June Van Cleef (fall) . . . . .SCC-H206 . . . . .972.881.5827

Gary Bishop (spring) . . . . .SCC-K119 . . . . .972.881.5159

### 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

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

- Freelance Work
- Historical Documentary Photographer
- Industrial Photography
- Multimedia Presentation
- News/Editorial
- Photo Lab Technician
- Portrait Studio
- Product Catalog Illustration
- Teaching

**AA Core Curriculum** **45 credit hours**  
 Additional Graduation Requirement 3 credit hours  
 See page 45.

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

ARTS 2356	Photography I	.3
ARTS 2357	Photography II	.3
ARTS 2371	Portfolio <sup>1</sup>	.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

**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

An Associate of Arts degree with an emphasis in Psychology serves as a foundation for continued studies in psychology. Since most careers in psychology require an advanced 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**  
 Additional Graduation Requirement 3 credit hours  
 See page 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

**SOCIOLOGY**

60 credit hours

**Program Coordinator:**

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

**Academic Advisor:**

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

The Sociology program at CCCC 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 CCCC enable students to comprehend the widespread social changes that accompany society's immersion 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 majors typically seek careers in teaching, social services, or research and planning in governmental or corporate settings.

Sociology is also an excellent minor for students considering careers in education, business, law, social work, medicine, or

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

psychology. The knowledge gained from sociology courses enhances a student's chances of being successful in accomplishing their career and life goals.

**AA Core Curriculum** **45 credit hours**  
Additional Graduation Requirement 3 credit hours

See page 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
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:

Shirley McBride . . . . .SCC-B193 . . . . .972.881.5675

### Academic Advisor:

Tori Hoffman . . . . .PRC F142 . . . . .972.377.1779

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 many other areas.

**AA Core Curriculum** **45 credit hours**  
Additional Graduation Requirement 3 credit hours

See page 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 COMMUNICATION

60 credit hours

### Program Coordinator:

Sherry Rhodes . . . . .SCC-I206 . . . . .972.516.5063

### Academic Advisor:

Tori Hoffman . . . . .PRC F142 . . . . .972.377.1779

The Associate of Arts degree with an emphasis in Speech 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 Communication 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 course 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**  
Additional Graduation Requirement 3 credit hours

See page 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
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 number of credit hours for that course.*

## THEATRE

60 credit hours

### Program Coordinator:

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

### Academic Advisor:

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

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 five 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. 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@ccc.edu](mailto:bbaker@ccc.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

Additional Graduation Requirement

See page 45.

**45 credit hours**

3 credit hours

### Recommended Electives

**12 credit hours**

BMGT 1391	Business of Theatre . . . . .	3
DRAM 1120	Theatre Practicum - Performance . . . . .	1
DRAM 1121	Theatre Practicum - Technical . . . . .	1
DRAM 1161	Musical Theatre Workshop I . . . . .	1
DRAM 1162	Musical Theatre Workshop II . . . . .	1
DRAM 1310	Introduction to the Theatre . . . . .	3
DRAM 1322	Stage Movement . . . . .	3
DRAM 1323	Basic Theatre Practice . . . . .	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 1370	Stage Management . . . . .	3
DRAM 1373	Sound Design for Theatre . . . . .	3
DRAM 2120	Demonstration Lab . . . . .	1
DRAM 2331	Stagecraft II . . . . .	3
DRAM 2336	Voice and Diction . . . . .	3
DRAM 2351	Acting III: Improvisation . . . . .	3
DRAM 2352	Acting IV: Acting for Film and TV . . . . .	3
DRAM 2361	History of Theatre I . . . . .	3
DRAM 2362	History of Theatre II . . . . .	3
DRAM 2363	History of Musical Theatre . . . . .	3
DRAM 2366	History of Film Making I . . . . .	3
DRAM 2367	History of Film Making II . . . . .	3
DRAM 2370	Theatre Outreach . . . . .	3
DRAM 2372	Survey of Contemporary American Dramatic Literature . . . . .	3
DRAM 2373	Costume Design II . . . . .	3
DRAM 2374	Intermediate Makeup . . . . .	3
DRAM 2375	Lighting Design . . . . .	3
DRAM 2376	Stage Combat and Circus Skills . . . . .	3
DRAM 2377	Shakespeare: Shakespeare on Stage . . . . .	3
DRAM 2378	Shakespeare: World and Words . . . . .	3

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

The Associate of Science degree provides general academic courses and electives for students who plan to transfer to a college or university. Because of the various transfer requirements at colleges and universities, and to ensure enrollment in appropriate courses, students should verify course transferability with a CCCC academic advisor and/or the college or university that they plan to attend.

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



## BIOLOGY

60 credit hours

### Program Coordinators:

David McCulloch . . . . .SCC-J220 . . . . .972.881.5991

Donna White . . . . .SCC-J224 . . . . .972.881.5889

### Academic Advisor:

Windy Pitcock . . . . .SCC-G104 . . . . .972.881.5854

The Associate of Science degree with an emphasis in 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 CCCCD a personalized, high quality educational experience.

### 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 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

Additional Graduation Requirement

See page 45.

**45 credit hours**

3 credit hours

### Recommended Electives

**12 credit hours**

BIOL	1322	General Nutrition	. . . . .	3
BIOL	1411	General 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
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
SRGT	1301	Medical Terminology I	. . . . .	3

## CHEMISTRY

60 credit hours

### Program Coordinator:

Amina El-Ashmawy . . . . .SCC-I104 . . . . .972.881.5961

### Academic Advisors:

Windy Pitcock . . . . .SCC-G104 . . . . .972.881.5854

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.

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

## 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

**AS Core Curriculum** **45 credit hours**  
 Additional Graduation Requirement 3 credit hours  
 See page 45.

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

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:

Bill Blitt . . . . .SCC-J115 . . . . .972.881.5184

### Academic Advisor:

Al Gober . . . . .PRC-F143 . . . . .972.377.1780

The Associate of Science degree with an emphasis in Computer Science prepares students for work in a variety of related areas. In particular, students are prepared for transfer to a college or university where they can specialize in such disciplines as Computer Science and Computer Software Engineering. The coursework for a Bachelor of Science degree 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.

**AS Core Curriculum** **45 credit hours**  
 Additional Graduation Requirement 3 credit hours  
 See page 45.

## Recommended Electives

**12 credit hours**

COSC 1420	Introduction to Programming – C++ <sup>1</sup>	.4
COSC 1437	Object-Oriented Programming – Java	.4
COSC 2315	Object-Oriented Data Structures – C++	.3
COSC 2325	Assembly Language	.3
COSC 2420	Introduction to Object-Oriented Programming – C++ <sup>2</sup>	.4
COSC 2436	Object-Oriented Data Structures – Java	.4
MATH 2305	Discrete Mathematics <sup>3</sup>	.3
MATH 2413	Calculus I <sup>3</sup>	.3
MATH 2414	Calculus II <sup>3</sup>	.3

<sup>1</sup> May substitute COSC 1320

<sup>2</sup> May substitute COSC 2320

<sup>3</sup> Recommended course for additional mathematics requirement

## Field of Study

**30-31 credit hours**

Field of Study curriculum is a set of courses that will satisfy the lower division requirements for a bachelor's degree in a specific academic area at a general academic teaching institution. If a student successfully completes the field of study curriculum, that block of courses may be transferred to a general academic teaching institution and must be substituted for that institution's lower division requirements for the degree program for the field of study into which the student transfers, and the student shall receive full academic credit toward the degree program for the block of courses transferred.

Within the Field of Study there are courses listed which will satisfy requirements for both the AS Core Curriculum and the Field of Study.

COSC 1320	Programming/Introduction to Programming Using C++ <sup>1,2,3</sup>	.3/4
COSC 1437	Object-Oriented Programming – Java <sup>4,5</sup>	.4
COSC 2436	Object-Oriented Data Structures – Java <sup>6</sup>	.4
COSC 2325	Assembly Language <sup>7</sup>	.3
MATH 2413	Calculus I <sup>8</sup>	.4
MATH 2414	Calculus II <sup>8</sup>	.4
PHYS 2425	University Physics I <sup>8</sup>	.4
PHYS 2426	University Physics II <sup>8</sup>	.4

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

- <sup>1</sup> COSC 1336/1436 and 1337/1437 are preparatory and sequential in nature; however, not all courses are required for the Computer Science major at all universities, but may apply to general degree requirements.
- <sup>2</sup> COSC 1336/1436 is not part of the Computer Science major requirements at The University of Texas at Austin, University of Texas at Arlington, University of Texas at Dallas, and Texas A&M University. Preparatory courses such as COSC 1336/1436 will assist students that need additional background but do not apply toward the computer science major requirements.
- <sup>3</sup> CCCCD COSC 1320/1420 are equivalent courses to COSC 1336/1436.
- <sup>4</sup> COSC 1337/1437 is not part of the Computer Science major requirements at The University of Texas at Austin. Preparatory courses such as COSC 1336/1436 and COSC 1337/1437 will assist students that need additional background but do not apply toward the computer science major requirements.
- <sup>5</sup> CCCCD COSC 2320/2420 are equivalent courses, taught in C++.
- <sup>6</sup> CCCCD COSC 2315 is an equivalent course, taught in C++.
- <sup>7</sup> COSC 2325/2425 is not part of the Computer Science major requirements at the University of Texas at Austin or Texas A&M University, but may be applied to general degree requirements.
- <sup>8</sup> It is recommended that students complete the math sequence, physics sequence, and computer science sequence at the same institution to reduce the likelihood of potential gaps in the curriculum.

## ENGINEERING

73 credit hours

### Program Coordinator:

Wayne Jones . . . . .PRC-H230A . . . . .972.377.1676

### Academic Advisor:

Terrence Brennan . . . . .PRC-F136 . . . . .972.377.1778

The Engineering Field of Study is preparation for a Bachelor of Science in several disciplines within the school of engineering at a college or university. The completed Field of Study is designed to transfer to any Texas public 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 and 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

Additional Graduation Requirement

See page 45.

**45 credit hours**

3 credit hours

Students in this Field of Study need a higher proficiency in computer science and are advised to substitute COSC 1420 for COSC 1300. Within the Field of Study there are courses listed which will satisfy requirements for both the AS Core Curriculum and the Field of Study.

### Field Of Study

**36 credit hours**

CHEM 1412 General Chemistry III . . . . .	4
ENGR 2301 Engineering Mechanics I . . . . .	3
ENGR 2302 Engineering Mechanics II . . . . .	3
ENGR 2305 Circuits I . . . . .	3
MATH 2320 Differential Equations . . . . .	3
MATH 2413 Calculus I <sup>1</sup> . . . . .	4
MATH 2414 Calculus II . . . . .	4
MATH 2415 Calculus III . . . . .	4
PHYS 2425 University Physics I . . . . .	4
PHYS 2426 University Physics II . . . . .	4

<sup>1</sup> Please check prerequisites for this course

### Recommended Elective

The following recommended elective may also be taken toward a bachelor's degree; however, it is not part of the Field of Study:

ENGR 1201 Introduction to Engineering . . . . .	2
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*NOTE: The second digit in a course number indicates the number of credit hours for that course.*

**ENGINEERING TECHNOLOGY****ELECTRONIC AND COMPUTER ENGINEERING TECHNOLOGY**

70 Credit Hours

**Program Coordinator:**

Wayne Jones . . . . .PRC-H230A . . . . .972.377.1676

**Academic Advisor:**

Terrence Brennan . . . . .PRC-F136 . . . . .972.377.1778

The Engineering Technology Field of Study is preparation for a Bachelor of Science degree in Electronics and Computer Engineering Technology at a college or university. The completed Field of Study is designed to transfer to any Texas public college or university.

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

Additional Graduation Requirement

3 credit hours

See page 45.

Students in this Field of Study need a higher proficiency in computer science and are advised to substitute COSC 1420 for COSC 1300. Within the Field of Study there are courses listed which will satisfy requirements for both the AS Core Curriculum and the Field of Study.

**Field Of Study****35 credit hours**

CHEM 1411 General Chemistry I . . . . .	.4
ENGL 2311 Technical Writing . . . . .	.3
ENGT 1401 Circuits I . . . . .	.4
ENGT 1407 Digital Fundamentals . . . . .	.4
ENGT 1402 Circuits II . . . . .	.4
MATH 2413 Calculus I <sup>1</sup> . . . . .	.4
MATH 2414 Calculus II . . . . .	.4
PHYS 2425 University Physics I . . . . .	.4
PHYS 2426 University Physics II . . . . .	.4

<sup>1</sup> Please check prerequisites for this course**Recommended Elective**

The following recommended elective may also be taken toward a bachelor's degree; however, it is not part of the Field of Study:

ENGR 1201 Introduction to Engineering

**ENVIRONMENTAL SCIENCE**

60 credit hours

**Program Coordinator:**

Daphne Hall-Babcock . . . .SCC-I226 . . . . .972.578.5518

**Academic Advisor:**

Windy Pitcock . . . . .SCC-G104 . . . . .972.881.5854

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.

**Career Opportunities**

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**

Additional Graduation Requirement

3 credit hours

See page 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
GEOL 2470 Archaeology Science . . . . .	.4
PHYS 1401 General Physics I . . . . .	.4

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

## GEOLOGY

60 credit hours

### Program Coordinator:

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

### Academic Advisor:

Windy Pitcock . . . . .SCC-G104 . . . . .972.881.5854

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.

### 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

### AS Core Curriculum

**45 credit hours**

Additional Graduation Requirement

3 credit hours

See page 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
GEOL 2470	Archaeology Science	. . . . .	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

Raja Khoury . . . . .SCC-J217 . . . . .972.881.5909

### Academic Advisor:

Windy Pitcock . . . . .SCC-G104 . . . . .972.881.5854

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 CCCCD 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

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

**AS Core Curriculum**

Additional Graduation Requirement

See page 45.

**45 credit hours**

3 credit hours

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

MATH 1370	Introduction to the History of Mathematics . . .	3
MATH 2305	Discrete Mathematics . . . . .	3
MATH 2318	Linear Algebra . . . . .	3
MATH 2320	Differential Equations . . . . .	3
MATH 2412	Pre-Calculus for Mathematics and Science . . . .	4
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
GEOL 2470	Archaeology Science . . . . .	4
PHIL 2303	Introduction to Logic . . . . .	3

**NURSING**

71 credit hours

**Program Director:**

Nell Ard, Ph.D., CNS, RNC . .CPC-E310 . . . . .972-548-6883

**Academic Advisor:**

Lynne Meyer . . . . .SCC-G107 . . . . .972-881-5114

The Nursing Field of Study (FOS) was prepared by the Texas Higher Education Coordinating Board to delineate a set of courses which will satisfy the lower division requirements for a bachelor's degree in nursing. The courses identified in the FOS serve as the lower division requirements of all public four-year colleges and universities in the state of Texas for students seeking a Bachelor of Science in Nursing (BSN) degree and are fully transferable. The completed FOS is designed to facilitate the articulation of a nurse from the associate degree level to the BSN level. The FOS was also designed to facilitate transfer from one associate degree program to another within the state of Texas.

CCCCD's nursing program has adopted an integrated curriculum approach to the FOS. The completed Field of Study is designed to transfer to any Texas public college or university.

**Career Opportunities**

A nursing career is a wonderful opportunity to provide care and service to others. Currently, the United States is experiencing a shortage of nurses which has opened many career opportunities even for the beginning nurse. Nurses have a variety of settings they can work in: hospitals, clinics, home health agencies, schools, and industry. There are also a variety of areas to specialize in such as medical-surgical, maternal-child, pediatrics, critical care, psychiatric/mental health, perioperative, and community.

**AS Core Curriculum**

Additional Graduation Requirement

See page 45.

**45 credit hours**

3 credit hours

Core curriculum courses are also included in the Field of Study listed below and will satisfy requirements for both the core curriculum and the Field of Study.

**Field Of Study****35 credit hours****Academic Courses**

BIOL 1322	General Nutrition . . . . .	3
BIOL 2401	Anatomy and Physiology I . . . . .	4
BIOL 2402	Anatomy and Physiology II . . . . .	4
BIOL 2420	Microbiology . . . . .	4
CHEM 1405 or 1411	. . . . .	4
MATH 1342	Statistics . . . . .	3
PSYC 2301	General Psychology . . . . .	3

**Nursing Content Courses**

RNSG 1523	Introduction to Professional Nursing <sup>1</sup> . . . . .	5
RNSG 2504	Care of the Client with Common Health Needs <sup>2</sup> . .	5

<sup>1</sup> Corequisite courses include: RNSG 1219 and RNSG 1360<sup>2</sup> Corequisite courses include: RNSG 1229 and RNSG 2361**PHYSICAL EDUCATION**

60 credit hours

**Program Coordinator:**

Sherry Schumann . . . . .SCC-A217A . . . . .972.516.5054

**Academic Advisor:**Audrey Newsome . . . . .CPC-A108B . . . . .972.548.6779  
SCC-G104 . . . . .972.881.5782

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.

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

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

- Recreation Coordinator
- Sports Administrator
- Sports Medicine
- Teacher

### AS Core Curriculum

Additional Graduation Requirement

**45 credit hours**

3 credit hours

See page 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:

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

### Academic Advisor:

Windy Pitcock . . . . .SCC-G104 . . . . .972.881.5854

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 university 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. Depending on the career plans of the student, the Physics emphasis will be at the general physics or the college physics level. 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

### AS Core Curriculum

Additional Graduation Requirement

**45 credit hours**

3 credit hours

See page 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.

PHYS 2425	University Physics I
PHYS 2426	University Physics II
MATH 2413	Calculus I
MATH 2414	Calculus II

### Recommended Electives

**12 credit hours**

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 2318	Linear Algebra . . . . .	3
MATH 2320	Differential Equations . . . . .	3
MATH 2412	Pre-Calculus for Mathematics and Science . . . .	4
MATH 2415	Calculus III . . . . .	4

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

## 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 (CASMNS)

Collin County Community College has established a preferred curriculum for students preparing to enter professions that require an extensive background in mathematics and natural science. Based at the Spring Creek Campus, the new center includes advanced courses in biology, chemistry, mathematics, and physics for students in pre-professional majors.

Courses offered through the center include:

- BIOL 1406 and BIOL 1407
- CHEM 1411 and CHEM 1412
- MATH 2417 and MATH 2419
- 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 CCCCD Schedule of Classes will designate the courses that are offered in a particular semester. Student research opportunities are available for some students in the program.

Students pursuing the following programs should seriously consider applying for acceptance in the Center for Advanced Study in Mathematics and Natural Sciences (CASMNS)

- Graduate School in Mathematics or Natural Science
- Geo-Physical Sciences
- Pre-Dental
- Pre-Engineering
- Pre-Medicine
- Pre-Veterinary Medicine

Applicants are assessed on the following enrollment requirements and should:

- Be highly motivated majors in mathematics or natural science
- Maintain an overall grade point average of 3.0

- Have their transcripts evaluated to ensure that prerequisites have been met
- Be interviewed by a CASMNS instructor
- Be recommended by discipline faculty or be approved to participate by the Dean of Mathematics and Natural Sciences

### PRE-ARCHITECTURE

#### Program Coordinator:

Warner Richeson . . . . .PRC-H114 . . . . .972.377.1689

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:

Design	3 credit hours
ARTS 1311	
English	6 credit hours
ENGL 1301 and 1302	
Mathematics	8 credit hours
MATH 2413 and 2414	
Physics	8 credit hours
PHYS 1401 and 1402	
Social and Behavioral Science	15 credit hours
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 programs at most colleges and universities. These courses provide a basic foundation in medical science and help establish basic clinical reasoning and clinical skills.

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. To be assured students make correct choices from the courses listed below, and/or to learn of different or additional course requirements from the college or university; students should visit with a CCCCD academic advisor.

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



**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**

ANTH 2351, PSYC 2301, or SOCI 1301  
GOVT 2301 and 2302  
HIST 1301 and 1302

**PRE-EDUCATION**

See page 52 for Education.

**PRE-ENGINEERING**

See page 63-64 for Engineering and Engineering Technology.

**PRE-LAW**

**Program Coordinator:**

Peter Dawson . . . . .SCC-K227 . . . . .972.516.5031

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 CCCC academic advisor to ensure that students take the correct courses for their 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.

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

# WORKFORCE EDUCATION programs

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 page 71. 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.

## 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.

Within each AAS program are suggested timelines for completion of degrees and certificates.

*\*Note: Applied Graphic Design Technology, Biotechnology, Child Development, Commercial Music (Music, Commercial), Computer Networking Technology, Dental Hygiene, Electronic Engineering Technology, Electronic Technology, Emergency Medical Services Professions, Fire Science, Interpreter Preparation Program/Deaf, Nursing, 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.*



COLLIN  
COUNTY  
COMMUNITY  
COLLEGE  
DISTRICT

## 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.*

### 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 1307 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.

## MARKETABLE SKILLS ACHIEVEMENT AWARDS

A Marketable Skills Achievement Award is a sequence of credit courses totaling 9-14 semester credit hours. CCCC offers Marketable Skills Achievement Awards for Child Development, contact Elaine Boski-Wilkinson at 972.881.5967; and Office Systems Technology, contact Diana Ramsower at 972.881.5835 or Mary Jane Tobaben 972-881-5170.

## Applied Graphic Design Technology

### 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 media 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, 2-D and 3-D computer graphics, video/compositing, digital audio and 2-D/3-D animation. The **Commercial 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 **3-D Entertainment Animation** certificate emphasizes 3-D animation incorporating high-end 3-D software. Students will develop skills in the concept and execution of 3-D animation targeted towards the entertainment industry as well as advertising and corporate communication. Skills are developed in conceptualization, 2-D and 3-D computer graphics, 3-D animation techniques and digital video compositing.

Students planning to transfer to a college or university should check with the CCCC academic advisor prior to beginning this program.

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

## AAS – Applied Graphic Design Technology

67 credit hours

### FIRST YEAR

#### First Semester

ARTC 1325 Introduction to Computer Graphics – Print  
ARTC 2311 History of Communication Graphics  
*ARTS 1301 Art Appreciation*<sup>1</sup>  
ARTS 1316 Drawing I  
*ENGL 1301 Composition/Rhetoric I*

#### Second Semester

ARTC 1302 Digital Imaging I  
ARTC 1305 Basic Graphic Design  
ARTC 1321 Illustration Techniques  
ARTC 1353 Computer Illustration I  
*PHED/DANC Any activity course*<sup>2</sup>  
*SPCH 1311 Fundamentals of Speech Communication*<sup>3</sup>

### SECOND YEAR

#### First Semester

ARTC 1327 Typography  
ARTC 1349 Art Direction I  
ARTC 2309 Electronic Pre-press  
ARTC 2313 Digital Publishing II  
ARTS 2356 Photography I  
*MATH 1332 Contemporary Mathematics*<sup>4</sup>

#### Second Semester

ARTC 2335 Portfolio Development for  
Graphic Design (Capstone)  
ARTC 2349 Art Direction II  
*ECON 1301 Introduction to Economics*<sup>5</sup>  
*PSYC 2302 Applied Psychology*<sup>6</sup>  
Elective \*  
Elective \*

<sup>1</sup> May substitute ARTS 1303, or 1304, DRAM 1310, HUMA 1301 or 1302, MUSI 1306, or 1307, or any PHIL course

<sup>2</sup> May substitute PHED 1338

<sup>3</sup> May substitute SPCH 1315 or 1321

<sup>4</sup> May substitute a higher level mathematics course – MATH 1314 is recommended for transfer students

<sup>5</sup> May substitute ECON 2301 or 2302

<sup>6</sup> May substitute PSYC 2301

\* Elective (6 credit hours): ARTC 2340, ARTS 1317, 2311, 2316, or 2333, or GRPH 1380

## Digital Video Specialization

60 credit hours

### FIRST YEAR

#### Summer

ARTC 1325 Introduction to Computer Graphics – Print  
DRAM 2366 History of Filmmaking I  
IMED 1211 Storyboard

#### First Semester

ARTC 1302 Digital Imaging I  
*MATH 1332 Contemporary Mathematics*<sup>1</sup>  
MUSC 2351 Audio for Video  
*SPCH 1311 Fundamentals of Speech Communication*<sup>2</sup>  
Elective \*

#### Second Semester

*ECON 1301 Introduction to Economics*<sup>3</sup>  
*PHED/DANC Any activity course*<sup>4</sup>  
*PSYC 2301 General Psychology*<sup>5</sup>  
PHTC 1345 Illustrative Photography I  
Elective \*

### SECOND YEAR

#### First Semester

*ARTS 1301 Art Appreciation*<sup>6</sup>  
*ENGL 1301 Composition/Rhetoric I*  
FLMC 1331 Computers in Video Production I (After Effects)  
IMED 1351 Digital Video

#### Second Semester

ARTC 2335 Portfolio Development for  
Graphic Design (Capstone)  
FLMC 2379 Digital Video Portfolio  
IMED 2313 Project Analysis and Design  
IMED 2341 Advanced Digital Video

<sup>1</sup> May substitute a higher level mathematics course – MATH 1314 is recommended for transfer students

<sup>2</sup> May substitute SPCH 1315 or 1321

<sup>3</sup> May substitute ECON 2301 or 2302

<sup>4</sup> May substitute PHED 1338

<sup>5</sup> May substitute PSYC 2302

<sup>6</sup> May substitute ARTS 1303 or 1304, DRAM 1310, HUMA 1301 or 1302, MUSI 1306 or 1307, or any PHIL course

\* Elective (6 credit hours): ARTC 2340, or any other ARTC course approved by program coordinator, ARTS 2356, COMM 1316, DRAM 1341 or 2367, GRPH 1380, or one PHTC course

## Multimedia Specialization

69 credit hours

### FIRST YEAR

#### Summer

ARTC 1325	Introduction to Computer Graphics – Print
ARTC 2311	History of Communication Graphics
IMED 1211	Storyboard

#### First Semester

ARTC 1301	Basic Animation
ARTC 1302	Digital Imaging I
ENGL 1301	Composition/Rhetoric I
PHED/DANC	Any activity course <sup>1</sup>
SPCH 1311	Fundamentals of Speech Communication <sup>2</sup>

#### Second Semester

ARTC 1353	Computer Illustration I
ARTC 2371	Advanced 2-D Computer Animation
ARTS 1316	Drawing I
IMED 2301	Instructional Design
MATH 1332	Contemporary Mathematics <sup>3</sup>
Elective *	

### SECOND YEAR

#### First Semester

ARTC 1345	3-D Modeling and Rendering
ARTC 2378	Animation on the Web
ECON 1301	Introduction to Economics <sup>4</sup>
IMED 1305	Multimedia Authoring I

#### Second Semester

ARTC 1341	3-D Animation I (Cinema 4-D XL) <sup>5</sup>
ARTC 2335	Portfolio Development for Graphic Design (Capstone)
ARTS 1301	Art Appreciation <sup>6</sup>
IMED 2313	Project Analysis and Design
PSYC 2301	General Psychology <sup>7</sup>

1 May substitute PHED 1338

2 May substitute SPCH 1315 or 1321

3 May substitute a higher level of mathematics – MATH 1314 is recommended for transfer students

4 May substitute ECON 2301 or 2302

5 May substitute ARTC 1341 (Maya)

6 May substitute ARTS 1303 or 1304, DRAM 1310, HUMA 1301 or 1302, MUSI 1306 or 1307, or any PHIL course

7 May substitute PSYC 2302

\* Elective (3 credit hours): Any PHTC course

## CERTIFICATES

### Applied Graphic Design Technology Certificate

39 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 1302	Digital Imaging I
ARTC 1305	Basic Graphic Design
ARTC 1321	Illustration Techniques
ARTC 1353	Computer Illustration I

### SECOND YEAR

#### First Semester

ARTC 1327	Typography
ARTC 1349	Art Direction I
ARTC 2309	Electronic Pre-press
ARTC 2313	Digital Publishing II

#### Second Semester

ARTC 2335	Portfolio Development for Graphic Design (Capstone)
ARTC 2349	Art Direction II

### Animation Specialization

41 credit hours

#### FIRST YEAR

##### First Semester

ARTC 1325	Introduction to Computer Graphics – Print
ARTC 1371	History of Animation
IMED 1211	Storyboard

##### Second Semester

ARTC 1302	Digital Imaging I
ARTC 1345	3-D Modeling and Rendering
IMED 1351	Digital Video

#### Summer

ARTC 1301	Basic Animation
MUSC 2351	Audio for Video

### SECOND YEAR

#### First Semester

ARTC 1341	3-D Animation I (Cinema 4-D XL)
ARTC 2378	Animation on the Web
FLMC 1331	Computers in Video Production I (After Effects)

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

**Second Semester**

- ARTC 2335 Portfolio Development for Graphic Design (Capstone)  
 ARTC 2341 3-D Animation II (Cinema 4-D XL)  
 IMED 2313 Project Analysis and Design

**Digital Video Specialization**

38 credit hours

**FIRST YEAR****First Semester**

- ARTC 1325 Introduction to Computer Graphics – Print  
 ARTC 2311 History of Communication Graphics  
 MUSC 2351 Audio for Video

**Second Semester**

- ARTC 1302 Digital Imaging I  
 ARTC 1353 Computer Illustration I  
 DRAM 2366 History of Film Making I  
 IMED 1211 Storyboard

**SECOND YEAR****First Semester**

- FLMC 1331 Computers in Video Production I (After Effects)  
 IMED 1351 Digital Video  
 PHTC 1345 Illustrative Photography I

**Second Semester**

- FLMC 2379 Digital Video Portfolio (Capstone)  
 IMED 2313 Project Analysis and Design  
 IMED 2341 Advanced Digital Video

**Gaming Graphics and Animation Specialization**

38-40 credit hours

**FIRST YEAR****Summer**

- ARTC 1325 Introduction to Computer Graphics – Print  
 IMED 1211 Storyboard

**First Semester**

- ARTC 1302 Digital Imaging I  
 ARTC 1345 3-D Modeling and Rendering  
 ARTC 1353 Computer Illustration I  
 COSC 1420 Introduction to Programming Using C++<sup>1</sup>

**Second Semester**

- ARTC 1341 3-D Animation I (Maya)  
 COSC 2420 Introduction to Object-Oriented Programming – C++<sup>2</sup>  
 IMED 2301 Instructional Design

**SECOND YEAR****First Semester**

- ARTC 2341 3-D Animation II (Maya)  
 IMED 1343 Digital Sound

**Second Semester**

- ARTC 2379 Computer Game Development (Capstone)  
 FLMC 2331 Computers in Video Production II (Maya)

<sup>1</sup> May substitute COSC 1320<sup>2</sup> May substitute COSC 2320**Illustration Specialization**

39 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 1302 Digital Imaging I  
 ARTC 1305 Basic Graphic Design  
 ARTC 1321 Illustration Techniques

**SECOND YEAR****First Semester**

- ARTC 1345 3-D Modeling and Rendering  
 ARTC 1353 Computer Illustration I  
 ARTC 2331 Illustration Concepts  
 ARTS 2323 Life Drawing I

**Second Semester**

- ARTC 2335 Portfolio Development for Graphic Design (Capstone)  
 ARTC 2345 Advanced 3-D Modeling and Rendering  
 ARTC 2349 Art Direction II

**Internet/Web Design Specialization**

41 credit hours

**FIRST YEAR****First Semester**

- ARTC 1325 Introduction to Computer Graphics – Print  
 ARTC 2311 History of Communication Graphics  
 IMED 2301 Instructional Design

**Second Semester**

- ARTC 1302 Digital Imaging I  
 IMED 1211 Storyboard  
 IMED 1316 Web Page Design I

*NOTE: Italicized course numbers and titles denote AAS Core Curriculum.*

## SECOND YEAR

### First Semester

ARTC 1353	Computer Illustration I
ARTC 2378	Animation on the Web
IMED 2315	Web Page Design II
MUSC 2351	Audio for Video

### Second Semester

ARTC 2335	Portfolio Development for Graphic Design (Capstone)
IMED 2313	Project Analysis and Design
IMED 2341	Advanced Digital Video
IMED 2349	Internet Communications

## 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 1302	Digital Imaging I
ARTC 1345	3-D Modeling and Rendering

## SECOND YEAR

### First Semester

ARTC 2371	Advanced 2-D Computer Animation
ARTC 2378	Animation on the Web
IMED 1305	Multimedia Authoring I
MUSC 2351	Audio for Video

### Second Semester

ARTC 1341	3-D Animation I (Cinema 4-D XL) <sup>1</sup>
ARTC 2335	Portfolio Development for Graphic Design (Capstone)
IMED 2313	Project Analysis and Design

<sup>1</sup> May substitute ARTC 1341 (Maya)

## 3-D Entertainment Animation Certificate

41 credit hours

### FIRST YEAR

#### Summer

ARTC 1325	Introduction to Computer Graphics – Print
FLMC 1301	History of Animation
IMED 1211	Storyboard

### First Semester

ARTC 1302	Digital Imaging I
ARTC 1345	3-D Modeling and Rendering
ARTC 1353	Computer Illustration I

### Second Semester

ARTC 1301	Basic Animation
ARTC 1341	3-D Animation I (Maya)

## SECOND YEAR

### First Semester

ARTC 2341	3-D Animation II (Maya)
ARTC 2372	Character Animation and Rendering
FLMC 1331	Computers in Video Production I (After Effects)
IMED 1351	Digital Video

### Second Semester

ARTC 2335	Portfolio Development for Graphic Design (Capstone)
FLMC 2331	Computers in Video Production II (Maya)

## BIOTECHNOLOGY

### Program Coordinator:

Bridgette Kirkpatrick . . . . .SCC-I208 . . . . .972.578.5513

### Academic Advisor:

Windy Pitcock . . . . .SCC-G104 . . . . .972.881.5854

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

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

- Medical Research Assistant/Technician
- Microbiological Research Assistant/Technician
- Pharmaceutical Research Assistant/Technician
- Technical Work in Manufacturing, Chemical, and Food Processing Industries

## AAS – Biotechnology

67 credit hours

### FIRST YEAR

#### First Semester

BIOL 1406 General Biology I  
 BITC 1311 Introduction to Biotechnology  
*CHEM 1411 General 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

*HUMA 1301 Introduction to the Humanities<sup>5</sup>*  
*PHED/DANC Any activity course<sup>6</sup>*  
 Elective\*

### SECOND YEAR

#### First Semester

BIOL 2420 Microbiology<sup>7</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 1405 (for non-transfer students)
- <sup>2</sup> May substitute MATH 1342
- <sup>3</sup> May substitute BIOL 1411, 1470, 2401, or 2404
- <sup>4</sup> May substitute CHEM 1419 or 1407 (for non-transfer students)
- <sup>5</sup> May substitute ARTS 1301, 1303, or 1304, DRAM 1310, HUMA 1302, MUSI 1306, or 1307, or any PHIL course.
- <sup>6</sup> May substitute PHED 1338
- <sup>7</sup> Prerequisites waived for students pursuing an AAS in Biotechnology.

\* Electives (3 credit hours): BITC 2386, ENGL 2311, or ENVR 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  
 BITC 1402 Biotechnology Laboratory  
 Methods and Techniques  
*CHEM 1411 General Chemistry I<sup>1</sup>*

#### Second Semester

BIOL 2420 Microbiology<sup>2</sup>  
 BITC 2386 Internship–Biological  
 Technology/Technician (Capstone)  
 BITC 2401 Molecular Biology Techniques<sup>3</sup>  
 Elective\*

- <sup>1</sup> May substitute CHEM 1405 (for non-transfer students)
- <sup>2</sup> Prerequisites waived for students pursuing a Biotechnology Certificate
- <sup>3</sup> May substitute BITC 2431
- \* Electives (3 credit hours): BIOL 2404, COSC 1300, ENGL 2311, or ENVR 1401

*NOTE: A course may not be counted as both an elective and a biology requirement.*

## CHILD DEVELOPMENT

Also a Tech Prep Program

Also a Marketable Skills Achievement Award Program (refer to page 72).

### 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

*NOTE: Italicized course numbers and titles denote AAS Core Curriculum.*



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 CDEC and 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.
  - Within the first week of the 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 the student has read and agrees to abide by the Texas Minimum Standards for day care centers
  - Verification that the student has read and agrees 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
  - Notarized affidavit
  - Personal release for videotaping for instructional purposes

Our 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
- 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*  
 CDEC 1319 *Child Guidance*  
 CDEC 1323 *Observation and Assessment*  
 TECA 1311 *Introduction to Early Childhood Education<sup>1</sup>*  
 TECA 1354 *Child Growth and Development<sup>1</sup>*

##### Second Semester

- CDEC 2326 *Administration of Programs for Children I*  
 PHED/DANC *Any activity course<sup>2</sup>*  
 PSYC 2302 *Applied Psychology<sup>3</sup>*  
 SPCH 1311 *Fundamentals of Speech Communication<sup>4</sup>*  
 TECA 1303 *Family and the Community<sup>1</sup>*  
 Elective\*

#### SECOND YEAR

##### First Semester

- COSC 1300 *Computer Essentials*  
 CDEC 1313 *Curriculum Resources for Early Childhood Programs*  
 CDEC 1370 *Prevention of Child Abuse*  
 CDEC 2328 *Administration of Programs for Children II*  
 TECA 1318 *Nutrition, Health, and Safety*  
 Elective\*

##### Second Semester

- CDEC 2336 *Administration of Programs for Children III*  
 CDEC 2166 *Practicum - Child Development and Early Childhood - Provider/Assistant (Capstone)*  
 ECON 1301 *Introduction to Economics<sup>5</sup>*  
 HUMA 1301 *Introduction to the Humanities<sup>6</sup>*  
 MATH 1332 *Contemporary Mathematics<sup>7</sup>*  
 Elective\*

<sup>1</sup> Tech Prep course which may have been completed in high school

<sup>2</sup> May substitute PHED 1338

<sup>3</sup> May substitute PSYC 2301

- <sup>4</sup> May substitute SPCH 1315 or 1321
- <sup>5</sup> May substitute ECON 2301 or 2302
- <sup>6</sup> May substitute ARTS 1301, 1303, or 1304, DRAM 1310, HUMA 1302, MUSI 1306 or 1307, or any PHIL course.
- <sup>7</sup> May substitute MATH 1324 or 1314 - recommended for transfer students.
- \* Electives (select 9 credit hours): CDEC 1315, 1317, 1327, 1330, 1334, 1342, 1357, 1358, 1359, 1392, 1394, 1396, 2322, 2324, or 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 course 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<sup>1</sup>

##### 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 course which may have been completed in high school

### Early Childhood Administrator Specialization

28 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 course 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 course 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>

*NOTE: Italicized course numbers and titles denote AAS Core Curriculum.*

## 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 course 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 course which may have been completed in high school

## COMPUTER-AIDED DRAFTING AND DESIGN

Also a Tech Prep Program

### Program Coordinator:

Warner Richeson . . . . .PRC-H114 . . . . .972.377.1689

### Academic Advisor:

Terrence Brennan . . . . .PRC-F136 . . . . .972.377.1778

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.

Students planning to transfer to a college or university should check with the CCCCD academic advisor prior to beginning this program to verify course transferability.

## 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 2319	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

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

- <sup>3</sup> May substitute SPCH 1315 or 1321
- <sup>4</sup> May substitute ECON 2301 or 2302
- <sup>5</sup> May substitute ARTS 1301, 1303, or 1304, DRAM 1310, HUMA 1302, MUSI 1306 or 1307, 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 or 2301, DFTG 1317, 1371, 1380, 1391, 2312, 2328, 2340 or 2352, or ENGL 2311

## AAS – Electronic Design

72 credit hours

### FIRST YEAR

#### First Semester

- CETT 1325 Digital Fundamentals
- CETT 1403 DC Circuits<sup>1</sup>
- 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<sup>1</sup>
- 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\*

#### 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, 1303 or 1304, DRAM 1310, HUMA 1302, MUSI 1306 or 1307, or any PHIL course
- <sup>4</sup> May substitute ECON 2301 or 2302
- <sup>5</sup> May substitute PHED 1338

- <sup>6</sup> May substitute SPCH 1315 or 1321
- <sup>7</sup> May substitute PSYC 2301
- \* Electives (12 credit hours): BMGT 2331, BUSI 1301 or 2301, DFTG 1171, 1172, 1305, 1394, 2319, 2332 or 2336, or ENGL 2311

## CERTIFICATES

### Computer-Aided Drafting and Design Certificate

30 credit hours

#### FIRST YEAR

##### First Semester

- DFTG 1309 Basic Computer-Aided Drafting<sup>1</sup>

##### Second Semester

- DFTG 1305 Technical Drafting<sup>1</sup>
- DFTG 2319 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 Intermediate Pro/Engineering, 3-D Studio Max, or Microstation
- 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, 1321, 1348, 1356, 1380, 2310, 2328, 2340, 2350, 2352 or 2381

### AutoCAD Specialization

15 credit hours

#### FIRST YEAR

##### First Semester

- DFTG 1309 Basic Computer-Aided Drafting<sup>1</sup>

##### Second Semester

- DFTG 2319 Intermediate Computer-Aided Drafting<sup>1</sup>

#### SECOND YEAR

##### First Semester

- DFTG 1391 Special Topics in Drafting
- DFTG 2332 Advanced Computer-Aided Drafting
- DFTG 2336 Computer-Aided Drafting Programming (Capstone)

- <sup>1</sup> Tech Prep course which may have been completed in high school

NOTE: *Italicized course numbers and titles denote AAS Core Curriculum.*

## 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 - 3-D Studio Max
DFTG 2312	Technical Illustration
DFTG 2340	Solid Modeling/Design Pro/Engineer

## COMPUTER INFORMATION SYSTEMS

Also a Tech Prep Program

#### Program Coordinator:

Mary Emerson . . . . .PRC-H111 . . . . .972.377.1687

#### Academic Advisor:

Al Gober . . . . .PRC-F143 . . . . .972.377.1780

Computer Information Systems is an exciting field that presents many opportunities for a student who is proficient in both applications and computer systems. 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 computer systems and microcomputer applications. Areas of study include business applications, introduction to business programming, management skills, microcomputer applications, financial skills, and technical skills. The degree can provide a broad business background and professional skills needed to succeed in a career in information technologies.

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.

Two 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 to verify course transferability.

### Career Options:

The Computer Information Systems program prepares students for many new job opportunities, such as:

- Computer Operator
- PC Service Representative
- PC Support Specialist
- Office Manager

The program also prepares students to work in a variety of businesses and industries, including manufacturing firms, banks and insurance companies, data processing service organizations, wholesale and retail business, or government agencies.

## AAS – Computer Information Systems

65 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

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

## Second Semester

CPMT 1411 Introduction to Computer Maintenance  
IMED 1301 Introduction to Multimedia<sup>2</sup>  
ITSE 1331 Introduction to Visual Basic Programming  
ITSW 1304 Introduction to Spreadsheets – Excel  
*PHED/DANC Any activity course<sup>3</sup>*  
*SPCH 1311 Fundamentals of Speech Communication<sup>4</sup>*

## Summer

*ECON 1301 Introduction to Economics<sup>5</sup>*  
*PSYC 2301 General Psychology<sup>6</sup>*

## SECOND YEAR

### First Semester

BCIS 2390 Systems Analysis and Design  
*ENGL 2311 Technical Writing*  
ITSW 1307 Introduction to Database  
Elective\*  
Elective\*

### Second Semester

IMED 2309 Internet Commerce  
ITMC 1301 Microsoft Windows Network and  
Operating System Essentials  
ITSC 1327 Multi-user Operating Systems  
ITSW 2380 Cooperative Education - Data Processing  
Technology/Technician Capstone)

<sup>1</sup> May substitute ARTS 1301, 1303, or 1304, DRAM 1310, HUMA 1302, MUSI 1306 or 1307, or any PHIL course

<sup>2</sup> Tech Prep course which may have been completed in high school

<sup>3</sup> May substitute PHED 1338

<sup>4</sup> May substitute SPCH 1315 or 1321

<sup>5</sup> May substitute ECON 2301

<sup>6</sup> May substitute PSYC 2302

\* Electives (6 credit hours): Any COSC, GRPH, IMED, ITSE, or ITSW course not listed above

## 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

IMED 1301 Introduction to Multimedia<sup>2</sup>  
IMED 1316 Web Page Design I  
ITSW 1304 Introduction to Spreadsheets – Excel

POFI 2301 Word Processing – MS Word

*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

ACCT 2301 Financial Accounting  
GRPH 1325 Digital Imaging I  
GRPH 1359 Object-Oriented Computer Graphics  
ITSW 1307 Introduction to Database  
Elective\*

### Second Semester

*ECON 1301 Introduction to Economics<sup>6</sup>*  
ITSC 2380 Cooperative Education – Computer and  
Information Sciences, General (Capstone)  
ITSE 1331 Introduction to Visual Basic Programming  
ITSE 2313 Web Authoring  
Elective\*

<sup>1</sup> May substitute ARTS 1301, 1303, or 1304, DRAM 1310, HUMA 1302, MUSI 1306 or 1307, or any PHIL course

<sup>2</sup> Tech Prep course which may have been completed in high school

<sup>3</sup> May substitute SPCH 1315 or 1321

<sup>4</sup> May substitute PHED 1338

<sup>5</sup> May Substitute PSYC 2302

<sup>6</sup> May substitute ECON 2301

\* Electives (6 credit hours): Any COSC, GRPH, IMED, ITSE, or ITSW course not listed above

## CERTIFICATES

Some of the courses in these certificate programs may require prerequisites. Please check the course descriptions in the back of this catalog.

## Microcomputer Applications Certificate

30 credit hours

### FIRST YEAR

#### First Semester

COSC 1300 Computer Essentials  
IMED 1301 Introduction to Multimedia<sup>1</sup>  
IMED 1316 Web Page Design I  
ITSC 1321 PC Operating Systems – Windows  
ITSW 1304 Introduction to Spreadsheets–Excel

#### Second Semester

IMED 1341 2-D Interface Design-Web Graphics  
ITSE 1331 Introduction to Visual Basic Programming  
ITSE 2313 Web Authoring  
ITSW 1307 Introduction to Database

*NOTE: Italicized course numbers and titles denote AAS Core Curriculum.*

## Summer

ITSC 2380 Cooperative Education-Computer and Information Sciences, General (Capstone)

<sup>1</sup> Tech Prep course which may have been completed in high school

## COMPUTER NETWORKING TECHNOLOGY

Also a Tech Prep Program

### Program Coordinator:

Wayne Jones . . . . .PRC-H230A . . . . .972.377.1676

### Academic Advisor:

Terrence Brennan . . . . .PRC-F136 . . . . .972.377.1778

The Computer Networking Technology program prepares students to perform tasks in network technology relating to network management, system administration, technical support, hardware/software installation, and equipment repair. The program graduate will be able to assemble computers based on customer requirements, install all network wiring and interfaces at customer sites, install and debug network software, monitor and maintain system security, and maintain network hardware and software. The graduate also will be qualified to take Cisco/Microsoft certification examinations upon completion of the AAS program. Students planning to transfer to a college or university should check with the CCCC 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

69 credit hours

#### FIRST YEAR

##### First Semester

CPMT 1411 Introduction to Computer Maintenance<sup>1</sup>  
 ENGL 1301 *Composition/Rhetoric I*  
 ITMC 1301 Microsoft Windows Network and Operating System Essentials  
 ITMC 1441 Implementing Microsoft Windows Professional and Server  
 MATH 1314 *College Algebra*

##### Second Semester

ECON 2301 *Principles of Macroeconomics*<sup>2</sup>  
 ITCC 1302 Local Area Networks Design and Protocols: Cisco 1<sup>1</sup>

ITMC 1442 Implementing a Microsoft Windows Network Infrastructure  
 ITNW 2373 Linux Operating system  
 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

HUMA 1301 *Introduction to the Humanities*<sup>6</sup>  
 ITCC 1306 Basic Router Configuration: Cisco 2<sup>1</sup>  
 ITMC 1443 Implementing and Administering Microsoft Directory Services  
 ITMC 1475 Managing a Microsoft Windows Network Environment

Microsoft Elective\*

### Second Semester

ITNW 2417 Network Security (Capstone)  
 Microsoft Elective\*  
 Elective\*\*  
 Elective\*\*

- <sup>1</sup> Tech Prep course which may have been completed in high school  
<sup>2</sup> May substitute ECON 1301 or 2302  
<sup>3</sup> May substitute SPCH 1315 or 1321  
<sup>4</sup> May substitute PHED 1338  
<sup>5</sup> May substitute PSYC 2302  
<sup>6</sup> May substitute ARTS 1301, 1303, or 1304, DRAM 1310, HUMA 1302, MUSI 1306 or 1307, or any PHIL course  
 \* Microsoft Electives (8 credit hours): ITMC 2403, 2404, 2431, 2432, or 2433  
 \*\* Electives (6 credit hours): CETT 1421, EECT 2433, INTC 1307, ITCC 1342 or 1346, ITMC 1371, 2403, 2404, 2431, 2432 or 2433, ITNW 1380, 1392, 2305, 2373 or 2374, LOTT 1401 or 2440

### Cisco Systems Networking Specialization

69 credit hours

#### FIRST YEAR

##### First Semester

CPMT 1411 Introduction to Computer Maintenance<sup>1</sup>  
 ENGL 1301 *Composition/Rhetoric I*  
 ITCC 1302 Local Area Networks Design and Protocols: Cisco 1<sup>1</sup>  
 ITCC 1306 Basic Router Configuration: Cisco 2<sup>1</sup>  
 ITMC 1301 Microsoft Windows Network and Operating System Essentials

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

## Second Semester

- ITCC 1342 Local Area Network Management: Cisco 3  
ITCC 1346 Wide Area Network Management: Cisco 4  
ITMC 1441 Implementing Microsoft Windows  
Professional and Server  
*MATH 1314 College Algebra*  
*SPCH 1311 Fundamentals of Speech Communication<sup>2</sup>*

## Summer

- PHED/DANC Any activity course<sup>3</sup>*  
*PSYC 2301 General Psychology<sup>4</sup>*

## SECOND YEAR

### First Semester

- ECON 2301 Principles of Macroeconomics<sup>5</sup>*  
*HUMA 1301 Introduction to the Humanities<sup>6</sup>*  
ITCC 2432 Advanced Routing Configuration: Cisco 5  
ITCC 2436 Remote Access Networks: Cisco 6  
ITMC 1475 Managing a Microsoft Windows  
Network Environment

### Second Semester

- ITCC 2440 Configuring LAN Switches: Cisco 7  
ITCC 2444 Internetwork Troubleshooting: Cisco 8 (Capstone)  
ITNW 2417 Network Security  
Elective\*

<sup>1</sup> Tech Prep course which may have been completed in high school

<sup>2</sup> May substitute SPCH 1315 or 1321

<sup>3</sup> May substitute PHED 1338

<sup>4</sup> May substitute PSYC 2302

<sup>5</sup> May substitute ECON 1301 or 2302

<sup>6</sup> May substitute ARTS 1301, 1303, or 1304, DRAM 1310, HUMA 1302, MUSI 1306 or 1307, or any PHIL course

\* Electives (3 credit hours): CETT 1421, EECT 2433, INTC 1307, ITCC 1342, 1346, ITMC 1371, 1442, 1443, 2403, 2404, 2431, 2432, or 2433, ITNW 1380, 2305, 2373, or 2374

## CERTIFICATES

### Computer Networking Technology Software (MCSA) Certificate

18 credit hours

#### FIRST YEAR

##### First Semester

- ITMC 1301 Microsoft Windows Network and  
Operating System Essentials  
ITMC 1441 Implementing Microsoft Windows  
Professional and Server

## Second Semester

- ITMC 1442 Implementing a Microsoft Windows  
Network Infrastructure  
ITMC 1475 Managing a Microsoft Windows  
Network Environment (Capstone)  
Elective\*

\* Electives (3 credit hours): ITMC 1371, 1443, 2403, 2404, 2431, 2432, or 2433

### Computer Networking Technology Advanced Software (MCSE) Specialization

31 credit hours

#### First Semester

- ITMC 1301 Microsoft Windows Network and  
Operating System Essentials  
ITMC 1441 Implementing Microsoft Windows  
Professional and Server  
ITMC 1442 Implementing a Microsoft Windows  
Network Infrastructure  
ITMC 1443 Implementing and Administering  
Microsoft Directory Services

#### Second Semester

- ITMC 1475 Managing a Microsoft Windows  
Network Environment  
ITNW 2417 Network Security (Capstone)  
Microsoft Elective\*  
Microsoft Elective\*\*

\* Microsoft Electives (4 credit hours): ITMC 2403, 2404, 2431, 2432, or 2433

\*\* Advanced Microsoft Electives (4 credit hours): ITMC 2431, 2432, or 2433

### Cisco Systems Networking (CCNA) Certificate

15 credit hours

#### 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>  
ITCC 1342 Local Area Management (LAN): Cisco 3

#### Second Semester

- ITCC 1346 Wide Area Management (WAN): Cisco 4 (Capstone)  
Elective\*

<sup>1</sup> Tech Prep course which may have been completed in high school

\* Open Elective (3 credit hours)



## Advanced Cisco Systems Networking (CCNP) Specialization

28 credit hours

### 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>
ITCC	1342	Local Area Management (LAN): Cisco 3
ITCC	1346	Wide Area Management (WAN): Cisco 4

### Second Semester

ITCC	2432	Advanced Routing Configuration: Cisco 5
ITCC	2436	Remote Access Networks: Cisco 6
ITCC	2440	Configuring LAN Switches: Cisco 7
ITCC	2444	Internetwork Troubleshooting: Cisco 8 (Capstone)

<sup>1</sup> Tech Prep course which may have been completed in high school

## COMPUTER PROGRAMMING

### Program Coordinator

Bill Blitt . . . . .SCC-J115 . . . . .972.881.5184

### Academic Advisor

Al Gober . . . . .PRC-F143 . . . . .972.377.1780

Many career opportunities are available in computer-related industries. Computer scientists and/or computer software engineers occupy a large percentage of all technical and managerial positions within the industry. The Computer Programming program prepares students with the marketable skills and technical competencies to enter this career field.

This degree program offers specializations in software development and database programming. Areas of study include C++, Java, Visual Basic, and database languages.

Several certificates are 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 Programming.

Students planning to transfer to another college or university should check with the CCCCD academic advisor prior to beginning this program to verify course transferability.

### Career Opportunities

Computer Programming prepares students for many new job opportunities, such as the following:

- Applications Analyst
- Applications Programmer
- Business Analyst
- Business Programmer
- Customer Service Representative
- Database Administrator
- Database Programmer
- Production Analyst

- Software Developer

## AAS - Software Development

71 credit hours

### FIRST YEAR

#### First Semester

COSC	1300	Computer Essentials
COSC	1420	Introduction to Programming – C++ <sup>1</sup>
ENGL	1301	Composition/Rhetoric I
HUMA	1301	Introduction to the Humanities <sup>2</sup>
MATH	1314	College Algebra

#### Second Semester

COSC	2325	Assembly Language
COSC	2420	Introduction to Object-Oriented Programming – C++ <sup>3</sup>
ITSW	1307	Introduction to Database – Access
MATH	2412	Pre-Calculus for Mathematics and Science
SPCH	1311	Fundamentals of Speech Communication <sup>4</sup>

#### Summer

COSC	2315	Object-Oriented Data Structures – C++
PSYC	2301	General Psychology <sup>5</sup>

### SECOND YEAR

#### First Semester

ENGL	2311	Technical Writing
ITSC	1327	Multi-User Operating Systems
ITSE	2301	Windows Programming Using C++
ITSE	2374	Computer Programming – C#
PHED/DANC	Any Activity Course <sup>6</sup>	
Elective*		

#### Second Semester

COSC	1437	Object-Oriented Programming – Java
ECON	1301	Introduction to Economics <sup>7</sup>
INEW	2340	Object-Oriented Design
ITSE	2380	Cooperative Education - Computer Programming (Capstone) <sup>8</sup>
Elective*		

<sup>1</sup> May substitute COSC 1320

<sup>2</sup> May substitute ARTS 1301, 1303, or 1304, DRAM 1310, HUMA 1302, MUSI 1306 or 1307, or any PHIL course

<sup>3</sup> May substitute COSC 2320

<sup>4</sup> May substitute SPCH 1315 or 1321

<sup>5</sup> May substitute PSYC 2302

<sup>6</sup> May substitute PHED 1338

<sup>7</sup> May substitute ECON 2301 or 2302

<sup>8</sup> May substitute INEW 2330

\* Electives (6 credit hours): BCIS 1332 or 2390, INEW 2301, ITSC 1307, ITSE 1344, 2309, 2339, 2347, 2349, or 2373

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

## Java Specialization

71 Credit Hours

### FIRST YEAR

#### First Semester

*COSC 1300 Computer Essentials*

COSC 1420 Introduction to Programming – C++<sup>1</sup>

ENGL 1301 *Composition/Rhetoric I*

HUMA 1301 *Introduction to the Humanities*<sup>2</sup>

MATH 1314 *College Algebra*

#### Second Semester

COSC 1437 Object-Oriented Programming – Java

COSC 2325 Assembly Language

ITSW 1307 Introduction to Database – Access

MATH 2412 Pre-Calculus for Mathematics and Science

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

#### Summer

ITSE 2309 Database Programming – SQL

*PSYC 2301 General Psychology*<sup>4</sup>

### SECOND YEAR

#### First Semester

COSC 2436 Object-Oriented Data Structures – Java

ENGL 2311 Technical Writing

ITSC 1327 Multi-User Operating Systems

ITSE 2374 Computer Programming – C#

*PHED/DANC Any Activity Course*<sup>5</sup>

Elective<sup>\*</sup>

#### Second Semester

*ECON 1301 Introduction to Economics*<sup>6</sup>

INEW 2338 Advanced Java Programming

INEW 2340 Object-Oriented Design

ITSE 2380 Cooperative Education, Computer Programming (Capstone)<sup>7</sup>

Elective<sup>\*</sup>

<sup>1</sup> May substitute COSC 1320

<sup>2</sup> May substitute ARTS 1301, 1303, or 1304, DRAM 1310, HUMA 1302, MUSI 1306 or 1307, or any PHIL course

<sup>3</sup> May substitute SPCH 1315 or 1321

<sup>4</sup> May substitute PSYC 2302

<sup>5</sup> May substitute PHED 1338

<sup>6</sup> May substitute ECON 2301 or 2302

<sup>7</sup> May substitute INEW 2330

<sup>\*</sup> Electives (6 credit hours): BCIS 1332 or 2390, COSC 2420, INEW 2301, ITSC 1307, ITSE 1344, 2309, 2339, 2347, 2349, or 2373

## CERTIFICATES

Some of the courses in these certificate programs may require prerequisites. Please check the course descriptions in the back of this catalog.

### Software Development Certificate

27 credit hours

#### Summer

COSC 1320 C++ For Programmers<sup>1</sup>

#### First Semester

COSC 2320 Object-Oriented Programming – C++<sup>2</sup>

COSC 2325 Assembly Language

Elective<sup>\*</sup>

#### Second Semester

COSC 2315 Object-Oriented Data Structures – C++

ITSE 2301 Windows Programming Using C++

INEW 2340 Object-Oriented Design

Elective<sup>\*</sup>

#### Summer

ITSE 2380 Cooperative Education - Computer Programming (Capstone)<sup>3</sup>

<sup>1</sup> May substitute COSC 1420

<sup>2</sup> May substitute COSC 2420

<sup>3</sup> May substitute INEW 2330

<sup>\*</sup> Electives (6 credit hours): BCIS 2390, COSC 1437, ITSC 1327, ITSE 1344, 2309, 2339, 2349, or 2373

### Java Specialization

33 credit hours

#### Summer

COSC 1420 Introduction to Programming – C++<sup>1</sup>

ITSW 1307 Introduction to Database – Access

#### First Semester

COSC 1437 Object-Oriented Programming – Java

ITSE 2309 Database Programming – SQL

Elective<sup>\*</sup>

#### Second Semester

COSC 2436 Object-Oriented Data Structures – Java

INEW 2340 Object-Oriented Design

Elective<sup>\*</sup>

#### Summer

INEW 2338 Advanced Java Programming

ITSE 2380 Cooperative Education – Computer Programming (Capstone)<sup>2</sup>

<sup>1</sup> May substitute COSC 1320

<sup>2</sup> May substitute INEW 2330

<sup>\*</sup> Electives (6 credit hours): BCIS 2390, COSC 2325 or 2420, INEW 2301, ITSC 1307, ITSE 1344, 2347, or 2349

*NOTE: Italicized course numbers and titles denote AAS Core Curriculum.*

## Visual Basic Specialization

27 credit hours

### Summer

ITSE 1331 Introduction to Visual Basic Programming

### First Semester

ITSE 1344 Mastering Microsoft Visual  
Basic Development [.NET]

ITSW 1307 Introduction to Database-Access

Elective \*

### Second Semester

INEW 2301 Macro for Applications – VBA

ITSE 2309 Database Programming – SQL

ITSE 2349 Advanced Visual Basic Programming

Elective \*

### Summer

ITSE 2380 Cooperative Education – Computer  
Programming (Capstone)<sup>1</sup>

<sup>1</sup> May substitute INEW 2330

\* Electives (6 credit hours): BCIS 2390, COSC 1420 or 2420,  
INEW 2340, ITSC 1327, ITSE 2347

## Database Programming Certificate

27 credit hours

### Summer

ITSE 1331 Introduction to Visual Basic Programming

ITSW 1307 Introduction to Database – Access

### First Semester

ITSE 1344 Mastering Microsoft Visual  
Basic Development [.NET]

ITSE 2309 Database Programming – SQL

Elective \*

### Second Semester

ITSE 2347 Advanced Database Programming – SQL

ITSE 2349 Advanced Visual Basic Programming

Elective \*

### Summer

ITSE 2380 Cooperative Education – Computer  
Programming (Capstone)<sup>1</sup>

<sup>1</sup> May substitute INEW 2330

\* Electives (6 credit hours): COSC 1437, ITNW 2373, ITSC  
1307, ITSE 2333, 2344, or 2354

## C++ Specialization

27 credit hours

### Summer

COSC 2320 Object-Oriented Programming – C++<sup>1</sup>

ITSW 1307 Introduction to Database – Access

### First Semester

ITSE 2301 Windows Programming Using C++

ITSE 2309 Database Programming – SQL

Elective \*

### Second Semester

ITSE 2347 Advanced Database Programming – SQL

ITSE 2373 Database Programming with Visual C++ and SQL

Elective \*

### Summer

ITSE 2380 Cooperative Education – Computer  
Programming (Capstone)<sup>2</sup>

<sup>1</sup> May substitute COSC 2420

<sup>2</sup> May substitute INEW 2330

\* Electives (6 credit hours): COSC 1437, ITNW 2373, ITSC  
1307, ITSE 2333, 2344, or 2354

## DENTAL HYGIENE

### Program Director:

Joanne Fletcher . . . . .CPC-A121 . . . . .972.548.6535

### Academic Advisor:

Lynne Meyer . . . . .SCC-G107 . . . . .972.881.5114

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

## 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
- 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 minimum 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 director 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 <sup>1</sup>

## FIRST YEAR

### First Semester

BIOL 2420	Microbiology
DHYG 1301	Orofacial Anatomy, Histology and Embryology
DHYG 1331	Preclinical Dental Hygiene
ENGL 1301	<i>Composition/Rhetoric I</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	<i>General Psychology</i>

## 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
HUMA 1301	<i>Introduction to the Humanities</i> <sup>2</sup>
SOCI 1301	<i>Introduction to Sociology</i>

<sup>1</sup> May substitute CHEM 1411

<sup>2</sup> May substitute ARTS 1301, 1303, or 1304, DRAM 1310, HUMA 1302, MUSI 1306 or 1307, or any PHIL course

## DIETARY MANAGEMENT

See **Dietary Manager Specialization** under Hotel/Restaurant Management, page 100.

## E-BUSINESS MEDIA

Also a Tech Prep Program

### Program Coordinator:

Mary Emerson . . . . .PRC-H111 . . . . .972.377.1687

### Academic Advisor:

Al Gober . . . . .PRC-F143 . . . . .972.377.1780

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 them to create dynamic web sites for distribution of information, web-based tutorials, business presence, and e-commerce.

Students planning to transfer to a college or university should check with the CCCC 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

*NOTE: Italicized course numbers and titles denote AAS Core Curriculum.*

## AAS – E-Business Media

67 credit hours

### FIRST YEAR

#### First Semester

COSC 1300 *Computer Essentials*  
ENGL 1301 *Composition/Rhetoric I*  
GRPH 1359 Object-Oriented Computer Graphics  
HUMA 1301 *Introduction to the Humanities*<sup>1</sup>  
IMED 1301 Introduction to Multimedia<sup>2</sup>

#### Second Semester

ECON 2301 *Principles of Macroeconomics*<sup>3</sup>  
GRPH 1325 Digital Imaging I  
IMED 1316 Web Page Design I  
PHED/DANC *Any Activity Course*<sup>4</sup>  
SPCH 1311 *Fundamentals of Speech Communication*<sup>5</sup>  
Elective\*

#### Summer

PSYC 2301 *General Psychology*<sup>6</sup>  
Elective\*

### SECOND YEAR

#### First Semester

ENGL 2311 Technical Writing  
IMED 1341 2-D Interface Design – Web Graphics  
IMED 2313 Project Analysis and Design  
IMED 2315 Web Page Design II  
ITSE 2313 Web Authoring

#### Second Semester

IMED 1345 Interactive Multimedia I  
IMED 2309 Internet Commerce  
ITSC 1380 Cooperative Education, Computer and  
Information Sciences, General (Capstone)  
MATH *Any 1XXX or 2XXX College-Level  
Mathematics Course*<sup>7</sup>  
Elective\*

<sup>1</sup> May substitute ARTS 1301, 1303, or 1304, DRAM 1310, HUMA 1302, MUSI 1306 or 1307, or any PHIL course

<sup>2</sup> Tech Prep course which may have been completed in high school

<sup>3</sup> May substitute ECON 2302

<sup>4</sup> May substitute PHED 1338

<sup>5</sup> May substitute SPCH 1315 or 1321

<sup>6</sup> May substitute PSYC 2302

<sup>7</sup> With the exception of MATH 1370

\* Electives (9 credit hours): Any COSC, GRPH, IMED, ITSE, or ITSW course not listed above

## Web Developer Specialization

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<sup>2</sup>  
IMED 1316 Web Page Design I  
PHED/DANC *Any Activity Course*<sup>3</sup>

#### Second Semester

GRPH 1359 Object-Oriented Computer Graphics  
IMED 2313 Project Analysis and Design  
IMED 2315 Web Page Design II  
ITSE 2313 Web Authoring  
MATH *Any 1XXX or 2XXX College-Level  
Mathematics Course*<sup>4</sup>

#### Summer

ECON 2301 *Principles of Macroeconomics*<sup>5</sup>  
SPCH 1311 *Fundamentals of Speech Communication*<sup>6</sup>

### SECOND YEAR

#### First Semester

GRPH 1325 Digital Imaging I  
IMED 1341 2-D Interface Design – Web Graphics  
ITSE 1311 Web Page Programming  
ITSW 1307 Introduction to Database – Access

#### Second Semester

IMED 1345 Interactive Multimedia I  
IMED 2309 Internet Commerce  
IMED 2349 Internet Communications  
PSYC 2301 *General Psychology*<sup>7</sup>

#### Summer

ITSE 2302 Intermediate Web Programming (Capstone)  
Elective \*

<sup>1</sup> May substitute ARTS 1301, 1303, or 1304, DRAM 1310, HUMA 1302, MUSI 1306 or 1307, or any PHIL course

<sup>2</sup> Tech Prep course which may have been completed in high school

<sup>3</sup> May substitute PHED 1338

<sup>4</sup> With the exception of MATH 1370

<sup>5</sup> May substitute ECON 2302

<sup>6</sup> May substitute SPCH 1315 or 1321

<sup>7</sup> May substitute PSYC 2302

\* Elective (3 credit hours): Any COSC, GRPH, IMED, ITSE, or ITSW course not listed above

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

## CERTIFICATES

### E-Business Media Certificate

27 credit hours

#### FIRST YEAR

##### First Semester

COSC 1300 Computer Essentials  
IMED 1301 Introduction to Multimedia<sup>1</sup>  
IMED 1316 Web Page Design I  
IMED 2313 Project Analysis and Design

##### Second Semester

GRPH 1325 Digital Imaging I  
IMED 1341 2-D Interface Design – Web Graphics  
IMED 2309 Internet Commerce  
ITSC 1380 Cooperative Education – Computer and Information Sciences, General (Capstone)  
ITSE 2313 Web Authoring

<sup>1</sup> Tech Prep course which may have been completed in high school

### Web Developer Specialization

42 credit hours

#### FIRST YEAR

##### First Semester

COSC 1300 Computer Essentials  
IMED 1301 Introduction to Multimedia<sup>1</sup>  
IMED 1316 Web Page Design I  
IMED 2313 Project Analysis and Design

##### Second Semester

GRPH 1325 Digital Imaging I  
GRPH 1359 Object-Oriented Computer Graphics  
ITSE 2313 Web Authoring  
ITSW 1307 Introduction to Database – Access

#### SECOND YEAR

##### First Semester

IMED 1341 2-D Interface Design – Web Graphics  
IMED 2309 Internet Commerce  
IMED 2315 Web Page Design II  
ITSE 1311 Web Page Programming

##### Second Semester

IMED 1345 Interactive Multimedia I  
ITSE 2302 Intermediate Web Programming (Capstone)

<sup>1</sup> Tech Prep course which may have been completed in high school

### E-Commerce Certificate

33 credit hours

#### FIRST YEAR

##### First Semester

COSC 1300 Computer Essentials  
GRPH 1325 Digital Imaging I  
IMED 1301 Introduction to Multimedia<sup>1</sup>  
IMED 1316 Web Page Design I  
IMED 2309 Internet Commerce

##### Second Semester

IMED 1341 2-D Interface Design – Web Graphics  
IMED 2313 Project Analysis and Design  
ITSE 1311 Web Page Programming  
ITSE 2302 Intermediate Web Programming (Capstone)  
ITSE 2313 Web Authoring  
ITSW 1307 Introduction to Database – Access

<sup>1</sup> Tech Prep course which may have been completed in high school

## ELECTRONIC ENGINEERING TECHNOLOGY

Also a Tech Prep Program

#### Program Coordinator:

Wayne Jones . . . . .PRC-H230A . . . . .972.377.1676

#### Academic Advisor:

Terrence Brennan . . . . .PRC-F136 . . . . .972.377.1778

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 to verify course transferability.

#### Career Opportunities

Students completing the Electronic Engineering Technology degree program will receive quality training for the following fields:

- Advanced Manufacturing Equipment Applications

*NOTE: Italicized course numbers and titles denote AAS Core Curriculum.*

- 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<sup>1</sup>  
 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 1321

<sup>4</sup> May substitute ARTS 1301, 1303, or 1304, DRAM 1310, HUMA 1302, MUSI 1306 or 1307, or any PHIL course

<sup>5</sup> May substitute PHED 1338

<sup>6</sup> May substitute ECON 2301 or 2302

<sup>7</sup> May substitute PSYC 2301

- \* Electives (6 credit hours): CETT 1409, CPMT 1411 or 2337, EECT 1391 or 1491, ENTC 1380 or 2380, INTC 1305, or LOTT 2440

## Electro-Optical Specialization

68 Credit Hours

Skilled optical technicians are in high demand in our area. Recent survey data indicates that within the next decade high tech industries will experience a nationwide shortage of 52,264 photonics technicians. Students enrolled in the Electro-Optical Engineering Technology program have the opportunity to engage in optical projects in the new state-of-the-art Convergence Lab located at CCCCD. Both an Associate of Applied Science Degree and Certificate are available to prospective students. Through articulation agreements students may 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 a CCCCD academic advisor prior to beginning this program to verify course transferability.

### FIRST YEAR

#### First Semester

CETT 1403 DC Circuits<sup>1</sup>  
 ECON 1301 *Introduction to Economics*<sup>2</sup>  
 ENGL 1301 *Composition/Rhetoric I*  
 LOTT 1443 Geometrical Optics I  
 MATH 1314 *College Algebra*

#### Second Semester

CETT 1405 AC Circuits<sup>1</sup>  
 DFTG 1309 Basic Computer-Aided Drafting<sup>1,3</sup>  
 LOTT 1401 Introduction to Fiber Optics  
 MATH 1316 Trigonometry  
 PHYS 1401 General Physics I

#### Summer

PHED/DANC *Any Activity Course*<sup>4</sup>  
 SPCH 1311 *Fundamentals of Speech Communication*<sup>5</sup>

### SECOND YEAR

#### First Semester

ENGL 2311 Technical Writing  
 LOTT 2436 Wave Optics  
 LOTT 1444 Fundamentals of Laser and Laser Safety  
 PHYS 1402 General Physics II

#### Second Semester

CETT 1457 Linear Integrated Circuits  
 HUMA 1301 *Introduction to the Humanities*<sup>6</sup>  
 LOTT 2449 Photonics (Capstone)  
 PSYC 2302 *Applied Psychology*<sup>7</sup>

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

- <sup>1</sup> Tech Prep courses which may have been completed in high school
- <sup>2</sup> May substitute ECON 2301 or 2302
- <sup>3</sup> May be substituted for COSC 1300
- <sup>4</sup> May substitute PHED 1338
- <sup>5</sup> May substitute SPCH 1315 or 1321
- <sup>6</sup> May substitute ARTS 1301, 1303, or 1304, DRAM 1310, HUMA 1302, MUSI 1306 or 1307, or any PHIL course
- <sup>7</sup> May substitute PSYC 2301

### 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<sup>1</sup>  
 CETT 1457 Linear Integrated Circuits

##### Second Semester

CETT 1445 Microprocessor  
 CPMT 2337 Microcomputer Interfacing  
 Capstone: Comprehensive examination

<sup>1</sup> Tech Prep course which may have been completed in high school

### Electro-Optical Specialization

32 credit hours

#### FIRST YEAR

##### First Semester

CETT 1403 DC Circuits<sup>1</sup>  
 LOTT 1443 Geometrical Optics I

##### Second Semester

LOTT 1401 Introduction to Fiber Optics  
 LOTT 1444 Fundamentals of Laser and Laser Safety

<sup>1</sup> Tech Prep course which may have been completed in high school

#### SECOND YEAR

##### First Semester

CETT 1405 AC Circuits<sup>1</sup>  
 CETT 1429 Solid State Devices<sup>1</sup>

##### Second Semester

LOTT 2436 Wave Optics  
 LOTT 2449 Photonics (Capstone)

<sup>1</sup> Tech Prep course which may have been completed in high school

### ELECTRONIC TECHNOLOGY

Also a Tech Prep Program

#### Program Coordinator:

Wayne Jones . . . . .PRC-H230A . . . . .972.377.1676

#### Academic Advisor:

Terrence Brennan . . . . .PRC-F136 . . . . .972.377.1778

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 CCCCD academic advisor prior to beginning this program to verify course transferability.

#### 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<sup>1</sup>  
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 2302

<sup>4</sup> May substitute ARTS 1301, 1303, or 1304, DRAM 1310, HUMA 1302, MUSI 1306 or 1307, or any PHIL course

<sup>5</sup> May substitute PHED 1338

<sup>6</sup> May substitute SPCH 1315 or 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<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 1421 Electronic Fabrication  
CETT 1431 Technical Programming  
DFTG 1358 Electrical/Electronics Drafting  
HUMA 1301 *Introduction to the Humanities*<sup>4</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>1</sup>  
CPMT 1443 Microcomputer Architecture  
SPCH 1311 *Fundamentals of Speech Communication*<sup>3</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

<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 2302

<sup>4</sup> May substitute ARTS 1301, 1303, or 1304, DRAM 1310, HUMA 1302, MUSI 1306 or 1307, or any PHIL course

<sup>5</sup> May substitute SPCH 1315 or 1321

<sup>6</sup> May substitute PHED 1338

<sup>7</sup> May substitute PSYC 2301

\* Electives (6 credit hours): Any CETT, CPMT, EECT, or LOTT course 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<sup>1</sup>  
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 2302

<sup>4</sup> May substitute ARTS 1301, 1303, or 1304, DRAM 1310, HUMA 1302, MUSI 1306 or 1307, or any PHIL course

<sup>5</sup> May substitute SPCH 1315 or 1321

<sup>6</sup> May substitute PHED 1338

<sup>7</sup> May substitute PSYC 2301

\* Electives (6 credit hours): CETT 1441 or 2439, CPMT 1443, ENTC 1380 or 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

### 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<sup>1</sup>  
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 SERVICES PROFESSIONS

### Program Coordinator:

Robert Sherard . . . . .CPC-E307 . . . . .972.548.6848

### Academic Advisor:

Jeannie Walls . . . . .CPC-A108C . . . . .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. Three tracks are available, including:

- **Emergency Medical Technician – Basic** **6 credit hours**  
(Included in the prerequisites for degree and certificate)
- **AAS Emergency Medical Services Professions** **68 credit hours**
- **Emergency Medical Services Professions Certificate** **40 credit hours**

Students planning to transfer to a college or university should check with a CCCC academic advisor prior to beginning this program to verify course transferability.

### 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 or Red Cross CPR for the Professional Rescuer. *NOTE: This requirement must be met before enrolling in clinicals and the internship.*

#### EMT – Basic students:

No additional requirements

#### AAS – Emergency Medical Services Professions or Emergency Medical Services Professions Certificate (Paramedic Students):

- Texas Department of Health or National Registry EMT-Basic Certification
- Completion of program application (available in Health Science 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)

### AAS – Emergency Medical Services Professions

68 credit hours

#### Prerequisites

BIOL 1406 General Biology  
EMSP 1160 Clinical – Emergency Medical  
Technology/Technician - Basic<sup>1</sup>  
EMSP 1501 Emergency Medical Technician - Basic<sup>1</sup>  
ENGL 1301 *Composition/Rhetoric I*  
MATH 1314 *College Algebra*<sup>2</sup>

### FIRST YEAR

#### First Semester

BIOL 2401 Human Anatomy and Physiology I  
EMSP 1338 Introduction to Advanced Practice  
EMSP 1356 Patient Assessment and Airway Management  
SPCH 1315 *Public Speaking*<sup>3</sup>  
PHED 1100 *Beginning Weight Training*

#### Second Semester

BIOL 2402 Human Anatomy and Physiology II  
EMSP 1161 Clinical – Advanced I  
EMSP 2434 Medical Emergencies  
EMSP 2444 Cardiology

#### Summer

EMSP 1162 Clinical – Advanced II  
EMSP 1355 Trauma Management

### SECOND YEAR

#### First Semester

EMSP 2260 Clinical – Advanced III  
EMSP 2330 Special Populations  
EMSP 2338 EMS Operations  
HUMA 1302 *Cultural Diversity*<sup>4</sup>  
PSYC 2301 *General Psychology*<sup>5</sup>

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

## Second Semester

- EMSP 2243 Assessment Based Management (Capstone)  
EMSP 2563 Clinical – Advanced IV

- <sup>1</sup> A student that has the EMT – Basic certification has met this requirement  
<sup>2</sup> May substitute a higher level mathematics course  
<sup>3</sup> May substitute SPCH 1321  
<sup>4</sup> May substitute ARTS 1301, 1303, or 1304, DRAM 1310, HUMA 1301, MUSI 1306 or 1307, or any PHIL course  
<sup>5</sup> May substitute SOCI 1301 or PSYC 2302

## Emergency Medical Services Professions Certificate

40 credit hours

### Prerequisites

- EMSP 1160 Clinical – Emergency Medical  
Technology/Technician – Basic<sup>1</sup>  
EMSP 1501 Emergency Medical 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 1161 Clinical – Advanced I  
EMSP 2434 Medical Emergencies  
EMSP 2444 Cardiology

#### Summer

- EMSP 1162 Clinical – Advanced II  
EMSP 1355 Trauma Management

### SECOND YEAR

#### First Semester

- EMSP 2260 Clinical – Advanced III  
EMSP 2330 Special Populations  
EMSP 2338 EMS Operations

#### Second Semester

- EMSP 2243 Assessment Based Management (Capstone)  
EMSP 2563 Clinical – Advanced IV

- <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

## FIRE SCIENCE

### Program Director:

Pat McAuliff . . . . .CPC-A206 . . . . .972.548.6837

### Academic Advisor:

Suzon Schroeder . . . . .CPC-A108B . . . . .972.548.6779  
Jeannie Walls . . . . .CPC-A108C . . . . .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.

Full-time, full-paid firefighters employed by any political subdivision who are 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).

### Additional 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

## AAS – Fire Science

68 credit hours

### FIRST YEAR

#### First Semester

COSC 1300 *Computer Essentials*  
 ECON 1301 *Introduction to Economics*<sup>1</sup>  
 ENGL 1301 *Composition/Rhetoric I*  
 FIRT 1301 Fundamentals of Fire Protection  
 MATH 1332 *Contemporary Mathematics*<sup>2</sup>  
 PHED 1100 *Beginning Weight Training*<sup>3</sup>

#### Second Semester

CHEM 1405 Introduction to Chemistry I  
 FIRT 1315 Hazardous Materials I  
 GOVT 2301 American Government I  
 HUMA 1301 *Introduction to the Humanities*<sup>4</sup>  
 SPCH 1311 *Fundamentals of Speech Communication*<sup>5</sup>

### SECOND YEAR

#### First Semester

ENGL 2311 *Technical Writing*  
 FIRT 1329 Building Codes and Construction  
 FIRT 1338 Fire Protection Systems  
 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 2302

<sup>2</sup> May substitute MATH 1324 or 1314 (recommended for transfer students)

<sup>3</sup> May substitute PHED 1338

<sup>4</sup> May substitute ARTS 1301, DRAM 1310, MUSI 1306 or 1307, or any PHIL course

<sup>5</sup> May substitute SPCH 1315 or 1321

<sup>6</sup> May substitute PSYC 2301

\* Open Elective

## Fire Officer Certification Specialization

68 credit hours

### FIRST YEAR

#### First Semester

COSC 1300 *Computer Essentials*  
 ECON 1301 *Introduction to Economics*<sup>1</sup>  
 ENGL 1301 *Composition/Rhetoric I*  
 FIRT 1301 Fundamentals of Fire Protection  
 MATH 1332 *Contemporary Mathematics*<sup>2</sup>  
 PHED 1100 *Beginning Weight Training*<sup>3</sup>

#### Second Semester

CHEM 1405 Introduction to Chemistry I  
 FIRT 1315 Hazardous Materials I  
 GOVT 2301 American Government I  
 HUMA 1301 *Introduction to the Humanities*<sup>4</sup>  
 SPCH 1311 *Fundamentals of Speech Communication*<sup>5</sup>

### SECOND YEAR

#### First Semester

ENGL 2311 Technical Writing  
 FIRT 1329 Building Codes and Construction  
 FIRT 1338 Fire Protection Systems  
 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 2351 Company Fire Officer (Capstone)

<sup>1</sup> May substitute ECON 2301 or 2302

<sup>2</sup> May substitute MATH 1324 or 1314 (recommended for transfer students)

<sup>3</sup> May substitute PHED 1338

<sup>4</sup> May substitute ARTS 1301, DRAM 1310, MUSI 1306 or 1307, or any PHIL course

<sup>5</sup> May substitute SPCH 1315 or 1321

<sup>6</sup> May substitute PSYC 2301

\* Open Elective

## Basic Firefighter Certification Specialization

69 credit hours

### FIRST YEAR

#### First Semester

*COSC 1300 Computer Essentials*  
*ECON 1301 Introduction to Economics*<sup>1</sup>  
*ENGL 1301 Composition/Rhetoric I*  
FIRT 1301 Fundamentals of Fire Protection  
*MATH 1332 Contemporary Mathematics*<sup>2</sup>  
*PHED 1100 Beginning Weight Training*<sup>3</sup>

#### Second Semester

CHEM 1405 Introduction to Chemistry I  
FIRT 1315 Hazardous Materials I  
GOVT 2301 American Government I  
*HUMA 1301 Introduction to the Humanities*<sup>4</sup>  
*SPCH 1311 Fundamentals of Speech Communication*<sup>5</sup>

### SECOND YEAR

#### First Semester

ENGL 2311 Technical Writing  
FIRT 1329 Building Codes and Construction  
FIRT 1338 Fire Protection Systems  
*PSYC 2302 Applied Psychology*<sup>6</sup>  
Elective\*

#### Second Semester

EMSP 1160 Clinical – Emergency Medical  
Technology/Technician – Basic  
EMSP 1501 Emergency Medical Technician – Basic  
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  
FIRS 1233 Firefighter Certification VII (Capstone)

<sup>1</sup> May substitute ECON 2301 or 2302

<sup>2</sup> May substitute MATH 1324 or 1314 (recommended for transfer students)

<sup>3</sup> May substitute PHED 1338

<sup>4</sup> May substitute ARTS 1301, DRAM 1310, MUSI 1306 or 1307, or any PHIL course

<sup>5</sup> May substitute SPCH 1315 or 1321

<sup>6</sup> May substitute PSYC 2301

\* Open Elective

## CERTIFICATES

### Basic Firefighter Certificate

22 credit hours

#### FIRST YEAR

##### First Semester

EMSP 1160 Clinical - Emergency Medical  
Technology/Technician - Basic  
EMSP 1501 Emergency Medical Technician - Basic  
FIRS 1201 Firefighter Certification I  
FIRS 1207 Firefighter Certification II  
FIRS 1313 Firefighter Certification III

##### 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 1303 Fire and Arson Investigation I  
FIRT 1307 Fire Prevention Codes and Inspections  
FIRT 1309 Fire Administration I

##### Second Semester

FIRT 1331 Firefighting Strategies and Tactics I  
FIRT 1349 Fire Administration II  
FIRT 1355 Methods of Teaching

##### Summer

FIRT 2351 Company Fire Officer (Capstone)

## HOTEL/RESTAURANT MANAGEMENT

Also a Tech Prep Program

### Program Coordinator:

Karen Musa . . . . .PRC-F112 . . . . .972.377.1672

### Academic Advisor:

Terrence Brennan . . . . .PRC-F136 . . . . .972.377.1778

Students completing the Hotel/Restaurant Management program at CCCCD will be qualified for a variety of mid-management positions and career advancement in the hospitality industry. Students in this program may choose from three degree options: Hotel/Restaurant Management degree, Culinary Arts specialization, or Dietary Manager 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

*NOTE: Italicized course numbers and titles denote AAS Core Curriculum.*

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 to verify course transferability.

### Accreditation and Transfer

CCCD's Dietary Manager program curriculum has been approved by the Dietary Manager's Association (DMA). Articulation agreements are being developed with nationally recognized hospitality programs such as the University of North Texas, Johnson & Wales University, Texas Tech University, and the University of Houston.

### Certifications

Students completing the Dietary Manager specialization will be eligible to take the Dietary Manager Certification exam offered by the Dietary Manager's Association. Students will be classified as a Certified Dietary Manager (CDM) and Certified Food Protection Professional (CFPP) upon successful completion of the certification examination. The Dietary Manager Program curriculum meets the minimum requirements set by the Texas Department of Health for food service directors employed in long-term care facilities.

### Additional 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  
 HAMG 2301 Principles of Food and Beverage Operations

### SECOND YEAR

#### First Semester

- HAMG 1311 Sanitation and Safety<sup>1,4,5</sup>  
 HAMG 2305 Hospitality Management and Leadership  
 HUMA 1301 *Introduction to the Humanities*<sup>6</sup>  
 MATH 1332 *Contemporary Mathematics*<sup>7</sup>  
 PHED/DANC *Any activity course*<sup>8</sup>  
 PSYC 2301 *General Psychology*<sup>9</sup>  
 TRVM 2301 Introduction to Convention/Meeting Management

#### 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 1315

<sup>3</sup> May substitute ECON 2301 or 2302

<sup>4</sup> Certification in ServSafe

<sup>5</sup> Certification in Food Protection Management

<sup>6</sup> May substitute ARTS 1301, 1303, or 1304, DRAM 1310, HUMA 1302, MUSI 1306 or 1307, or any PHIL course

<sup>7</sup> May substitute MATH 1324 or 1314 (recommended for transfer students)

<sup>8</sup> May substitute PHED 1338

<sup>9</sup> May substitute PSYC 2302

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

## Culinary Arts Specialization

72 credit hours

### FIRST YEAR

#### First Semester

- BIOL 1322 General Nutrition  
CULA 1301 Basic Food Preparation  
CULA 1380 Cooperative Education –  
Culinary Arts/Chef Training  
*ENGL 1301 Composition/Rhetoric I*  
HAMG 1311 Sanitation and Safety<sup>1,2,3</sup>  
HAMG 1321 Introduction to Hospitality Industry<sup>1</sup>  
HAMG 2332 Hospitality Financial Management  
*SPCH 1321 Business and Professional Speaking<sup>4</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>5</sup>*  
HAMG 2301 Principles of Food and Beverage Operations  
PSTR 1301 Fundamentals of Baking

#### Summer

- MATH 1332 Contemporary Mathematics<sup>6</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>7</sup>*  
*PHED/DANC Any activity course<sup>8</sup>*  
*PSYC 2301 General Psychology<sup>9</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> Certification in ServSafe

<sup>3</sup> Certification in Food Protection Management

<sup>4</sup> May substitute SPCH 1311 or 1315

<sup>5</sup> May substitute ECON 2301 or 2302

<sup>6</sup> May substitute MATH 1324 or MATH 1314 (recommended for transfer students)

<sup>7</sup> May substitute ARTS 1301, 1303, or 1304, DRAM 1310, HUMA 1302, MUSI 1306 or 1307, or any PHIL course

<sup>8</sup> May substitute PHED 1338

<sup>9</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 1311 Sanitation and Safety<sup>1,2,3</sup>  
HAMG 2305 Hospitality Management and Leadership  
HAMG 2337 Hospitality Facilities Management  
RSTO 1380 Cooperative Education – Food and Beverage/  
Restaurant Operations Manager (Capstone)  
HAMG 2301 Principles of Food and Beverage Operations

<sup>1</sup> Tech Prep course which may have been completed in high school

<sup>2</sup> Certification in ServSafe

<sup>3</sup> Certification in Food Protection Management

### 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 1345 International Cuisine  
CULA 1380 Cooperative Education – Culinary Arts/Chef  
Training (Capstone)  
CULA 2331 Advanced Food Preparation  
HAMG 1311 Sanitation and Safety<sup>1,2,3</sup>  
HAMG 2301 Principles of Food and Beverage Operations

<sup>1</sup> Tech Prep course which may have been completed in high school

<sup>2</sup> Certification in ServSafe

<sup>3</sup> Certification in Food Protection Management

### Dietary Manager Specialization

18 Credit Hours

#### FIRST YEAR

##### First Semester

- BIOL 1323 Nutrition and Diet Therapy  
HAMG 1324 Hospitality Human Resources Management  
HAMG 1380 Cooperative Education – Hospitality  
Administration and Management

*NOTE: Italicized course numbers and titles denote AAS Core Curriculum.*



## Second Semester

CULA 1380	Cooperative Education – Culinary Arts/Chef Training (Capstone)
HAMG 2301	Principles of Food and Beverage Operations
HAMG 1311	Sanitation and Safety <sup>1,2,3</sup>

<sup>1</sup> Tech Prep course which may have been completed in high school

<sup>2</sup> Certification in ServSafe

<sup>3</sup> Certification in Food Protection Management

## 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

## INTERIOR AND ARCHITECTURAL DESIGN

Also a Tech Prep Program

### Program Coordinator:

Warner Richeson . . . . .PRC-H114 . . . . .972-377-1689

### Academic Advisor:

Terrence Brennan . . . . .PRC-F136 . . . . .972-377-1778

The Interior and Architectural Design degree program prepares students to enter the world of spatial design. Specialized knowledge needed by an architect or interior designer includes spatial composition, drafting, space planning, building codes, and materials. Electives allow for more in-depth study of architecture, interior design, or illustration. Students are immediately valuable to employers upon graduation with our strong curriculum in CAD drafting. The programs strengths in advanced levels of drafting and modeling means students can position themselves within interior and architectural design firms to further their training and development in their respective fields.

Interior and Architectural Design are state-licensed professions and all state requirements must be met before either title can be

used. Accredited degrees in Interior Design and Architecture are available through four local institutions (UNT, UTA, El Centro College, and TCU). Students planning to transfer to a college or university should check with the CCCCD academic advisor prior to beginning this program to verify course transferability.

## Career Opportunities

With an Associate of Applied Science degree in Interior and Architectural Design, the student will have the skills necessary to enter the profession as an assistant in an interior design firm, an architectural firm, a space planning or facilities management department of any large corporation, or to practice as an interior decorator, a salesperson in a retail home furnishings or home improvement products store, or a wholesale furnishings or fixtures showroom. The graduate will also be prepared for transfer to an accredited professional program in Interior Design or Architecture.

## AAS Interior and Architectural Design

70 Credit Hours

### FIRST YEAR

#### First Semester

COSC 1300	Computer Essentials
DFTG 1309	Basic Computer-Aided Drafting <sup>1</sup>
INDS 1301	Basic Elements of Design
INDS 1319	Technical Drawing for Interior Designers
INDS 1341	Color Theory and Application

#### Second Semester

DFTG 2319	Intermediate Computer-Aided Drafting <sup>1</sup>
ENGL 1301	Composition/Rhetoric I
INDS 2313	Residential Design I
INDS 2321	Presentation Drawing
SPCH 1311	Fundamentals of Speech Communication <sup>2</sup>

#### Summer

DFTG 2332	Advanced Computer-Aided Drafting
MATH 1314	College Algebra
HUMA 1301	Introduction to the Humanities <sup>3</sup>
PHED/DANC	Any activity course <sup>4</sup>

### SECOND YEAR

#### First Semester

DFTG 1391	Special Topics in Drafting Intermediate Pro/Engineer, 3-D Studio Max, or Microstation
INDS 1351	History of Interiors I
INDS 2335	Residential Design II
PSYC 2302	Applied Psychology <sup>5</sup>
	Elective*

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

**Second Semester**

- ECON 1301 *Introduction to Economics*<sup>6</sup>
- INDS 1345 Commercial Design I (Capstone)
- INDS 1352 History of Interiors II
- Elective\*
- Elective\*

<sup>1</sup> Tech Prep course which may have been completed in high school  
<sup>2</sup> May substitute SPCH 1315 or 1321  
<sup>3</sup> May substitute ARTS 1301, 1303, or 1304, HUMA 1302, or MUSI 1306  
<sup>4</sup> May substitute PHED 1338  
<sup>5</sup> May substitute PSYC 2301  
<sup>6</sup> May substitute ECON 2301 or 2302  
 \* Electives (nine credit hours): DFTG 1317, 1321, 2310, or 2328, INDS 1315, 2307, or 2315

**Interior and Architectural Design Certificate**

42 Credit Hours

**FIRST YEAR**

**First Semester**

- DFTG 1309 Basic Computer-Aided Drafting<sup>1</sup>
- INDS 1301 Basic Elements of Design
- INDS 1319 Technical Drawing for Interior Designers
- INDS 1341 Color Theory and Application

**Second Semester**

- DFTG 2319 Intermediate Computer-Aided Drafting<sup>1</sup>
- INDS 2313 Residential Design I
- INDS 2321 Presentation Drawing

**SECOND YEAR**

**First Semester**

- INDS 1351 History of Interiors I
- INDS 2335 Residential Design II
- Elective\*

**Second Semester**

- INDS 1345 Commercial Design I (Capstone)
- INDS 1352 History of Interiors II
- Elective\*
- Elective\*

<sup>1</sup> Tech Prep course which may have been completed in high school  
 \* Electives (three credit hours): DFTG 1317, 1321, 2310, or 2328, INDS 1315, 2307, or 2315

**INTERPRETER PREPARATION PROGRAM/DEAF**

Also see American Sign Language, page 49.

**Program Coordinator:**

Henry Whalen . . . . . SCC-B135 . . . . . 972.881.5152  
 (TTY) 972.881.5138

**Academic Advisor:**

Tori Hoffman . . . . . PRC F142 . . . . . 972.377.1779

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 ASL Assistants than non-Deaf teachers and ASL Assistants, 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 CCCCAD academic advisor prior to beginning this program to verify course transferability.

**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.*

IPPD Admissions Requirements for the AAS degree

1. Complete of the Interpreter Preparation Program packet (IPP packet), which includes:
  - Official transcripts submitted to the CCCCAD Admissions and Records Office
  - Application to the Interpreter Preparation Program, which is available from the program coordinator

- Current reading, writing, and mathematics assessment scores
2. Demonstrate minimum competencies in reading, writing, and mathematics. For program entry, students must assess into:  
READ 0305 or higher  
ENGL 0305 or higher  
MATH 0305 or higher
  3. Complete the 34 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 2301 American Sign Language (ASL): Intermediate I  
SGNL 2302 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.
  5. Provide evidence of BEI Certification in lieu of IPPD Assessment. Students must take grammar portion.

### Continuation Requirements

Beginning with SGNL 2301, 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 percent 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, 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

68 credit hours

#### FIRST YEAR

##### First Semester

COSC	1300	<i>Computer Essentials</i>
ENGL	1301	<i>Composition/Rhetoric I</i>
MATH	1332	<i>Contemporary Mathematics<sup>1</sup></i>
SGNL	1401	American Sign Language (ASL): Beginning I <sup>+</sup>
SPCH	1311	<i>Fundamentals of Speech Communication<sup>2</sup></i>

#### Second Semester

SGNL	1402	American Sign Language (ASL): Beginning II <sup>+</sup>
SLNG	1311	Fingerspelling
SLNG	1447	Deaf Culture
PHED/DANC		<i>Any Activity Course<sup>3</sup></i>
		Technical Core <sup>4</sup>

#### Summer

PHIL	2306	Introduction to Ethics <sup>5</sup>
SGNL	2301	American Sign Language (ASL): Intermediate I <sup>+</sup>

### SECOND YEAR

#### First Semester

BUSG	2309	<i>Small Business Management<sup>6</sup></i>
PSYC	2302	<i>Applied Psychology<sup>7</sup></i>
SGNL	2302	American Sign Language (ASL): Intermediate II <sup>+</sup>
SLNG	1321	Introduction to the Interpreting Profession Elective <sup>*</sup>

#### Second Semester

SLNG	2266	Practicum I - Sign Language Interpreter
SLNG	2301	Interpreting I
		Technical Core <sup>4</sup>

#### Summer

SLNG	1350	Sign-to-Voice
SLNG	2267	Practicum II - Sign Language Interpreter (Capstone)
SLNG	2311	Specialized Interpreting/Transliterating

+ 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 1314 (recommended for transfer students)

<sup>2</sup> May substitute SPCH 1315 or 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 1321

<sup>5</sup> PHIL 2306 is recommended for IPPD majors, but student may substitute ARTS 1301, 1303, or 1304, DRAM 1310, MUSI 1306 or 1307, or any PHIL course

<sup>6</sup> BUSG 2309 is recommended for IPPD majors, but student may substitute ECON 1301, 2301, or 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 or 1313, SLNG 1391, SOCI 1306 or 2319, SPCH 2377, or SRGT 1301

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

## CERTIFICATE

### Interpreter Trainee Certificate

34 credit hours

#### FIRST YEAR

##### First Semester

SGNL 1401 American Sign Language (ASL): Beginning I<sup>+</sup>

SLNG 1447 Deaf Culture

Elective\*

Elective\*

##### Second Semester

SGNL 1402 American Sign Language (ASL): Beginning II<sup>+</sup>

SLNG 1311 Fingerspelling

PHED/DANC *Any Activity Course<sup>1</sup>*

Elective\*

##### Summer

SGNL 2301 American Sign Language (ASL): Intermediate I<sup>+</sup>

#### SECOND YEAR

##### First Semester

SGNL 2302 American Sign Language (ASL): Intermediate II<sup>+</sup>

SLNG 1321 Introduction to the Interpreting  
Profession (Capstone)

+ 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, BUSG 2309, BUSI 1307, DRAM 1351, ENGL 1301 or 1302, or SPCH 2377

NOTE: Degree-seeking students will take the IPPD Language Assessment after completing the IPPD certificate.

## MANAGEMENT DEVELOPMENT

### Program Coordinator:

Russell Kunz . . . . .PRC-H230C . . . . .972.377.1702

### Academic Advisor:

Terrence Brennan . . . . .PRC-F136 . . . . .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 that requires individuals to 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 CCCCD academic advisor prior to beginning this program to verify course transferability.

### 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.

### 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>*

NOTE: *Italicized course numbers and titles denote AAS Core Curriculum.*

## SECOND YEAR

### First Semester

BMGT 2310	Financial Management
BMGT 2331	Principles of Quality Management
HRPO 2301	Human Resources Management
ITSW 1304	Introduction to Spreadsheets – Excel
PSYC 2302	<i>Applied Psychology</i> <sup>6</sup>

### Second Semester

BMGT 2309	Leadership
BMGT 2311	Management of Change
BMGT 2341	Strategic Management (Capstone)
BMGT 2382	Cooperative Education – Business Administration and Management, General <sup>7</sup>
QCTC 1303	Quality Control

<sup>1</sup> May substitute ARTS 1301, 1303, or 1304, DRAM 1310, HUMA 1302, MUSI 1306 or 1307, or any PHIL course

<sup>2</sup> May substitute ECON 2301 or 2302

<sup>3</sup> May substitute MATH 1324 or 1314 (recommended for transfer students)

<sup>4</sup> May substitute PHED 1338

<sup>5</sup> May substitute SPCH 1315 or 1321

<sup>6</sup> May substitute PSYC 2301

<sup>7</sup> May substitute BMGT 1343 with consent of program coordinator

NOTE: May substitute BMGT 1342, 1343, or 1344 for any BMGT, HRPO, or QCTC course, except for Capstone course

## Criminal Justice Specialization

61 credit hours

### FIRST YEAR

#### First Semester

BMGT 1303	Principles of Management
BMGT 1307	High Performance Work Teams
COSC 1300	<i>Computer Essentials</i>
ENGL 1301	<i>Composition/Rhetoric I</i>
HUMA 1301	<i>Introduction to the Humanities</i> <sup>1</sup>

#### Second Semester

BMGT 1301	Supervision
CRIJ 1301	Introduction to Criminal Justice
ECON 1301	<i>Introduction to Economics</i> <sup>2</sup>
MATH 1332	<i>Contemporary Mathematics</i> <sup>3</sup>
SPCH 1311	<i>Fundamentals of Speech Communication</i> <sup>4</sup>

## SECOND YEAR

### First Semester

BMGT 2310	Financial Management
BMGT 2331	Principles of Quality Management
CRIJ 1306	Court Systems and Practices
CRIJ 2323	Legal Aspects of Law Enforcement
PHED/DANC	<i>Any activity course</i> <sup>5</sup>
PSYC 2302	<i>Applied Psychology</i> <sup>6</sup>

### Second Semester

BMGT 2309	Leadership
BMGT 2311	Management of Change (Capstone)
BMGT 2382	Cooperative Education – Business Administration and Management, General <sup>7</sup>
CRIJ 1307	Crime in America
HRPO 2301	Human Resources Management

<sup>1</sup> May substitute ARTS 1301, 1303, or 1304, DRAM 1310, HUMA 1302, MUSI 1306 or 1307, or any PHIL course

<sup>2</sup> May substitute ECON 2301 or 2302

<sup>3</sup> May substitute MATH 1324 or 1314 (recommended for transfer students)

<sup>4</sup> May substitute SPCH 1315 or 1321

<sup>5</sup> May substitute PHED 1338

<sup>6</sup> May substitute PSYC 2301

<sup>7</sup> May substitute BMGT 1344 with consent of program coordinator

NOTE: May substitute BMGT 1342, 1343, or 1344 for any BMGT, HRPO, or QCTC course, except for Capstone course

## CERTIFICATES

### Management Development Certificate

18 credit hours

#### FIRST YEAR

##### First Semester

BMGT 1301	Supervision <sup>1</sup>
BMGT 1303	Principles of Management
BMGT 2310	Financial Management

##### Second Semester

BMGT 2309	Leadership (Capstone)
BMGT 2311	Management of Change
BMGT 2341	Strategic Management

<sup>1</sup> May substitute QCTC 1303

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

**Criminal Justice Specialization**

15 credit hours

**FIRST YEAR****First Semester**

BMGT 1301 Supervision  
 BMGT 1303 Principles of Management  
 CRIJ 1301 Introduction to Criminal Justice

**Second Semester**

BMGT 2309 Leadership (Capstone)  
 CRIJ 1307 Crime in America

**Human Resources Management Specialization**

15 credit hours

**FIRST YEAR****First Semester**

BMGT 1301 Supervision<sup>1</sup>  
 BMGT 1303 Principles of Management  
 BMGT 1307 High Performance Work Teams

**Second Semester**

BMGT 2309 Leadership (Capstone)  
 HRPO 2301 Human Resources Management

<sup>1</sup> May substitute QCTC 1303**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 Principles of Quality Management

**Project Management Certificate**

18 credit hours

**FIRST YEAR****First Semester**

BMGT 1343 Project Management  
 BMGT 1344 Negotiations and Conflict Management  
 BMGT 2311 Management of Change

**Second Semester**

BMGT 1342 Project Scope and Risk Management  
 BMGT 2309 Leadership (Capstone)  
 QCTC 1303 Quality Control

**MARKETING****Program Coordinator:**

Russell Kunz . . . . .PRC-H230C . . . . .972.377.1702

**Academic Advisor:**

Terrence Brennan . . . . .PRC-F136 . . . . .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.

CCCCD's Marketing 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 CCCCAD academic advisor prior to beginning this program to verify course transferability.

**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 *Fundamentals of Speech Communication<sup>2</sup>*  
 Elective\*

*NOTE: Italicized course numbers and titles denote AAS Core Curriculum.*

**Second Semester**

ACCT 2301 Financial Accounting  
 HUMA 1301 *Introduction to the Humanities*<sup>3</sup>  
 MRKG 2333 Principles of Selling  
 MRKG 2349 Advertising and Sales Promotion  
 PHED/DANC *Any activity course*<sup>4</sup>  
 PSYC 2302 *Applied Psychology*<sup>5</sup>

**SECOND YEAR****First Semester**

BMGT 1305 Communications in Management  
 BMGT 1396 Special Topics in General Retailing Operations  
 BUSG 2309 Small Business Management  
 COSC 1300 *Computer Essentials*  
 IBUS 1354 International Marketing Management

**Second Semester**

ECON 1301 *Introduction to Economics*<sup>6</sup>  
 MRKG 1301 Customer Relations  
 MRKG 1302 Principles of Retailing  
 MRKG 2348 Marketing Research and Strategies (Capstone)  
 MRKG 2381 Cooperative Education – Business Marketing and Marketing Management<sup>7</sup>

<sup>1</sup> May substitute MATH 1324 or 1314 (recommended for transfer students)

<sup>2</sup> May substitute SPCH 1315 or 1321

<sup>3</sup> May substitute ARTS 1301, 1303, or 1304, DRAM 1310, HUMA 1302, MUSI 1306 or 1307, or any PHIL course

<sup>4</sup> May substitute PHED 1338

<sup>5</sup> May substitute PSYC 2301

<sup>6</sup> May substitute ECON 2301 or 2302

<sup>7</sup> May substitute BMGT 1344 with consent of program coordinator

\* Electives (3 credit hours): ARTC 1305 or 2311, BMGT 1307, COMM 1307, or MRKG 1380

**Marketing/Business Management Specialization**

61 credit hours

**FIRST YEAR****First Semester**

BMGT 1303 Principles of Management  
 COSC 1300 *Computer Essentials*  
 ENGL 1301 Composition/Rhetoric I  
 MRKG 1311 Principles of Marketing  
 SPCH 1311 *Fundamentals of Speech Communication*<sup>1</sup>

**Second Semester**

BMGT 2310 Financial Management<sup>2</sup>  
 BMGT 1344 Negotiations and Conflict Management  
 HUMA 1301 *Introduction to the Humanities*<sup>3</sup>  
 MRKG 1301 Customer Relations  
 MRKG 1302 Principles of Retailing  
 PHED/DANC *Any Activity Course*<sup>4</sup>

**SECOND YEAR****First Semester**

BMGT 2309 Leadership  
 MATH 1332 *Contemporary Mathematics*<sup>5</sup>  
 MRKG 2333 Principles of Selling  
 MRKG 2348 Marketing Research and Strategies  
 PSYC 2302 *Applied Psychology*<sup>6</sup>

**Second Semester**

BMGT 1305 Communications in Management  
 BMGT 2341 Strategic Management (Capstone)  
 ECON 1301 *Introduction to Economics*<sup>7</sup>  
 MRKG 2349 Advertising and Sales Promotion Elective\*

<sup>1</sup> May substitute SPCH 1315 or 1321

<sup>2</sup> May substitute ACCT 2301

<sup>3</sup> May substitute ARTS 1301, 1303, or 1304, DRAM 1310, HUMA 1302, MUSI 1306 or 1307, or any PHIL course

<sup>4</sup> May substitute PHED 1338

<sup>5</sup> May substitute MATH 1324 or 1314 (recommended for transfer students)

<sup>6</sup> May substitute PSYC 2301

<sup>7</sup> May substitute ECON 2301 or 2302

\* Electives: BMGT 1307, 2311, or 2331, HRPO 2301, or IBUS 1354

**CERTIFICATES****Marketing Certificate**

18 credit hours

**FIRST YEAR****First Semester**

MRKG 1311 Principles of Marketing  
 MRKG 2333 Principles of Selling  
 MRKG 2349 Advertising and Sales Promotion

**Second Semester**

MRKG 1301 Customer Relations<sup>1</sup>  
 MRKG 1302 Principles of Retailing  
 MRKG 2348 Marketing Research and Strategies (Capstone)

<sup>1</sup> May substitute BUSG 2309

## MUSIC, COMMERCIAL

Also see Music, page 56.

### 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.

Students planning to transfer to a college or university should check with the CCCC academic advisor prior to beginning this program to verify course transferability.

### 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
- Performance
- Studio Management
- Synthesizer Programming

### AAS – Commercial Music

62 credit hours

#### FIRST YEAR

##### First Semester

*COSC 1300 Computer Essentials*

MUSB 1305 Survey of the Music Business

MUSC 1327 Audio Engineering I

MUSI 1301 Music Fundamentals

MUSI 1171 Leisure Piano I<sup>1</sup>

Elective\*

##### Second Semester

MUSI 1116 Aural Skills I

MUSI 1172 Leisure Piano II<sup>2</sup>

MUSI 1311 Music Theory I

Elective\*

Elective\*

Elective\*

Elective\*

## SECOND YEAR

### First Semester

MUSC 1331 MIDI 1

*ENGL 1301 Composition/Rhetoric I*

*MATH 1314 College Algebra*

Elective\*

Elective\*

### Second Semester

*MUSI 1307 Introduction to Music Literature<sup>3</sup>*

MUSB 2380 Cooperative Education – Music Business  
Management and Merchandising (Capstone)

*PSYC 2301 General Psychology<sup>4</sup>*

*PHED/DANC Any activity course<sup>5</sup>*

Elective\*

Elective\*

<sup>1</sup> May substitute MUSI 1181

<sup>2</sup> May substitute MUSI 1182

<sup>3</sup> Required to fulfill the core requirement in Fine Arts for Music,  
Commercial majors

<sup>4</sup> May substitute PSYC 2302

<sup>5</sup> May substitute PHED 1338

\* Electives (select 25 credit hours): Any MUAP course (maximum of 8 credit hours), any MUEN courses (maximum of 4 credit hours), MUSB 1301 or 2301, MUSC 1209, 1303, 1321, 1329, 1333, 2314, 2330, 2343, 2345, 2351, 2355, 2405, 2427, 2447, or 2448, MUSI 1117, 1183, 1184, 1192, 1193, 1312, 1386, 2116, 2117, 2181, 2182, 2192, 2193, 2311, or 2312

## CERTIFICATE

### Audio Engineering Certificate

31 credit hours

#### FIRST YEAR

##### First Semester

MUSB 1305 Survey of the Music Business

MUSC 1327 Audio Engineering I<sup>1</sup>

MUSC 2405 Sound Reinforcement Systems Technology

MUSC 2427 Audio Engineering II<sup>1</sup>

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> (Capstone)

<sup>1</sup> Taught in an eight-week format

\* Electives (3 credit hours): MUSB 1301 or 2309, MUSC 1303, 1331, 1333, or 2351, or MUSI 1301

*NOTE: Italicized course numbers and titles denote AAS Core Curriculum.*



## NURSING

### Program Director:

Dr. Nell Ard . . . . .CPC-E310 . . . . .972.548.6883

### Academic Advisor:

Lynne Meyer . . . . .SCC-G107 . . . . .972.881.5114

CCCCD's Associate Degree Nursing (ADN) 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.

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 CCCCAD academic advisor prior to beginning this program to verify course transferability.

For students interested in transferring to a BSN program, please see the AS – Nursing Field of Study on page 66.

### 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, extension 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.

### Additional 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

71 credit hours

#### Prerequisites:

BIOL 2401 Anatomy and Physiology I  
BIOL 2402 Anatomy and Physiology II  
BIOL 2420 Microbiology  
MATH 1342 Statistics

### FIRST YEAR

#### First Semester

ENGL 1301 *Composition/Rhetoric I*  
PSYC 2301 *General Psychology*  
RNSG 1219 Integrated Nursing Skills I  
RNSG 1360 Clinical I – Nursing (R. N. Training)  
RNSG 1523 Introduction to Professional  
Nursing for Integrated Programs

#### Second Semester

PSYC 2314 Life Span Psychology  
RNSG 1229 Integrated Nursing Skills II  
RNSG 1361 Clinical II – Nursing (R. N. Training)  
RNSG 2504 Integrated Care of the Client with  
Common Health Care Needs

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

## SECOND YEAR

### First Semester

RNSG 2460 Clinical III – Nursing (R. N. Training)

RNSG 2514 Integrated Care of the Client with  
Complex Health Care Needs

SOCI 1301 Introduction to Sociology<sup>1</sup>

### Second Semester

HUMA 1301 *Introduction to the Humanities*<sup>2</sup>

RNSG 2207 Transition to Nursing Practice (Capstone)

RNSG 2535 Integrated Client Care Management

RNSG 2561 Clinical IV – Nursing (R. N. Training)

<sup>1</sup> May substitute SOCI 1306

<sup>2</sup> May substitute ARTS 1301, 1303, or 1304, DRAM 1310,  
HUMA 1302, MUSI 1306 or 1307, or any PHIL course

NOTE - For those students considering completion of their BSN degree, the following additional courses are recommended:

BIOL 1322 Nutrition

CHEM 1405 Introduction to Chemistry I

– OR –

CHEM 1411 General Chemistry I

## OFFICE SYSTEMS TECHNOLOGY

Also a Tech Prep Program

Also a Marketable Skills Achievement Award Program (refer to page 71.)

### Program Coordinators:

Diana Ramsower . . . . . SCC-J117 . . . . . 972.881.5835

Mary Jane Tobaben . . . . . SCC-J116 . . . . . 972.881.5170

### Academic Advisor:

Al Gober . . . . . PRC-F143 . . . . . 972.377.1780

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 to verify course transferability.

### 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 1307 Proofreading and Editing\*

POFT 1319 Records and Information Management I\*

POFT 2301 Document Formatting and Skillbuilding\*

##### Second Semester

ACNT 1303 Introduction to Accounting I<sup>1,\*</sup>

MATH 1332 *Contemporary Mathematics*<sup>2</sup>

PHED/DANC *Any activity course*<sup>3</sup>

POFI 2301 Word Processing\*

POFT 2203 Speed and Accuracy Building\*

PSYC 2302 *Applied Psychology*<sup>4</sup>

##### Summer

HUMA 1301 *Introduction to the Humanities*<sup>5</sup>

Elective \*\*

#### SECOND YEAR

##### First Semester

ECON 1301 *Introduction to Economics*<sup>6</sup>

ITSC 1309 Integrated Software Applications I<sup>1,\*</sup>

POFT 2312 Business Correspondence and Communication\*

Elective \*\*

Elective \*\*

NOTE: *Italicized course numbers and titles denote AAS Core Curriculum.*

## Second Semester

POFT 1349 Administrative Office Procedures II (Capstone)\*  
SPCH 1311 *Fundamentals of Speech Communication*<sup>7</sup>  
Elective\*\*  
Elective\*\*

<sup>1</sup> Tech prep course which may have been completed in high school

<sup>2</sup> May substitute MATH 1324 or 1314

<sup>3</sup> May substitute PHED 1338

<sup>4</sup> May substitute PSYC 2301

<sup>5</sup> May substitute ARTS 1301, 1303, or 1304, DRAM 1310, HUMA 1302, MUSI 1306 or 1307, or any PHIL course

<sup>6</sup> May substitute ECON 2301 or 2302

<sup>7</sup> May substitute SPCH 1315 or 1321

\* Prerequisite: POFT 1329<sup>1</sup> or a keyboarding course taken in high school

\*\* Electives (15 hours): BMGT 2309, ITSC 1321\*, ITSW 1304\* or 1307\*, LGLA 1307, POFI 13011, \*, or 2331\*, POFL 1359\*, 1380\*, or 2301\*, POFM 1321, 1331\*, 1353\*, or 1380\*, POFT 1380\* or 2380\*, or SRGT 1301

## CERTIFICATES

### Office Systems Technology Certificate

26 credit hours

#### FIRST YEAR

##### First Semester

POFI 2301 Word Processing\*  
POFT 1307 Proofreading and Editing\*  
POFT 1319 Records and Information Management I\*  
POFT 2203 Speed and Accuracy Building\*  
POFT 2301 Document Formatting and Skillbuilding\*

##### Second Semester

ITSC 1309 Integrated Software Applications I<sup>1</sup>\*  
POFT 1349 Administrative Office Procedures II (Capstone)\*  
POFT 2312 Business Correspondence and Communication\*  
Elective\*\*

<sup>1</sup> Tech prep course which may have been completed in high school

\* Prerequisite: POFT 1329<sup>1</sup> or a keyboarding course taken in high school

\*\* Electives (3 credit hours): ACNT 13031, \*, POFI 2331, or POFT 1380

## Legal Office Support Specialization

32 credit hours

#### FIRST YEAR

##### First Semester

LGLA 1307 Introduction to Law and the Legal Profession  
POFI 1301 Computer Applications I<sup>1</sup>\*  
POFT 1307 Proofreading and Editing\*  
POFT 1319 Records and Information Management I\*  
POFT 2203 Speed and Accuracy Building\*  
POFT 2301 Document Formatting and Skillbuilding\*

##### Second Semester

ITSC 1309 Integrated Software Applications I<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

\* Prerequisite: POFT 1329<sup>1</sup> or a keyboarding course taken in high school

\*\* Electives (3 credit hours): ITSW 1304\* or 1307\*, POFI 2301\* or 2331\*, POFL 1380\*, or POFT 2312\*

## Medical Office Support Specialization

35 credit hours

#### FIRST YEAR

##### First Semester

POFI 1301 Computer Applications I<sup>1</sup>\*  
POFT 1307 Proofreading and Editing\*  
POFT 1319 Records and Information Management I\*  
POFT 2301 Document Formatting and Skillbuilding\*  
SRGT 1301 Medical Terminology I

##### Second Semester

ITSC 1309 Integrated Software Applications I<sup>1</sup>\*  
POFM 1321 Medical Law and Ethics for Office Personnel  
POFM 1353 Medical Coding  
POFT 2312 Business Correspondence and Communication\*  
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

\* Prerequisite: POFT 1329<sup>1</sup> or a keyboarding class taken in high school

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

## Medical Transcription Specialization

38 credit hours

### FIRST YEAR

#### First Semester

POFI	1301	Computer Applications I <sup>1</sup> *
POFM	1331	Medical Transcription I*
POFT	1307	Proofreading and Editing*
POFT	2203	Speed and Accuracy Building*
SRGT	1301	Medical Terminology I

#### Second Semester

BIOL	2404	Human Anatomy and Physiology Basics
HPRS	2301	Pathophysiology
POFM	2313	Medical Transcription II*
POFT	2301	Document Formatting and Skillbuilding*

#### Summer

HPRS	2300	Pharmacology for Health Professions
POFM	1321	Medical Law and Ethics for Office Personnel
POFM	2317	Medical Transcription III*
MRMT	1267	Practicum (or Field Experience) – Medical Transcription (Capstone) <sup>2</sup> *

<sup>1</sup> Tech prep course which may have been completed in high school

<sup>2</sup> May substitute MRMT 1282\*

\* Prerequisite: POFT 1329<sup>1</sup> or a keyboarding class taken in high school

## PARALEGAL/LEGAL ASSISTANT

### Program Coordinator:

Peter Dawson . . . . .SCC-K227 . . . . .972.516.5031

### Academic Advisor:

Al Gober . . . . .PRC-F143 . . . . .972.377.1780

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, which 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. See page 57 for details.

Students planning to transfer to a college or university should check with the CCCCD academic advisor prior to beginning this program to verify course transferability.

## Career Opportunities

Employment opportunities for entry-level paralegals/legal assistants include the following:

- Law Firms
- Corporations
- Governmental agencies

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

63 credit hours

### FIRST YEAR

#### First Semester

<i>COSC</i>	1300	<i>Computer Essentials</i>
<i>ENGL</i>	1301	<i>Composition/Rhetoric I</i>
LGLA	1307	Introduction to Law and the Legal Professions
<i>MATH</i>	1332	<i>Contemporary Mathematics<sup>1</sup></i>
Elective*		

#### Second Semester

<i>ECON</i>	1301	<i>Introduction to Economics<sup>2</sup></i>
<i>ENGL</i>	1302	<i>Composition/Rhetoric II</i>
LGLA	1303	Legal Research
<i>PHED/DANC</i>	<i>Any activity course<sup>3</sup></i>	
<i>PSYC</i>	2302	<i>Applied Psychology<sup>4</sup></i>

#### Summer

<i>HUMA</i>	1301	<i>Introduction to the Humanities<sup>5</sup></i>
Elective**		

### SECOND YEAR

#### First Semester

LGLA	1346	Civil Litigation I
LGLA	1355	Family Law
LGLA	2303	Torts and Personal Injury Law
LGLA	2307	Law Office Management
<i>SPCH</i>	1311	<i>Fundamentals of Speech Communication<sup>6</sup></i>

#### Second Semester

LGLA	1353	Wills, Trusts, and Probate Administration
LGLA	2239	Certified Legal Assistant Review (Capstone) <sup>7</sup>
Elective***		
Elective***		
Elective***		

NOTE: *Italicized course numbers and titles denote AAS Core Curriculum.*

- <sup>1</sup> May substitute MATH 1324 or 1314 (recommended for transfer students)
- <sup>2</sup> May substitute ECON 2301 or 2302
- <sup>3</sup> May substitute PHED 1338
- <sup>4</sup> May substitute PSYC 2301
- <sup>5</sup> May substitute ARTS 1301, 1303, or 1304, DRAM 1310, HUMA 1302, MUSI 1306 or 1307, or any PHIL course
- <sup>6</sup> May substitute SPCH 1315 or 1321
- <sup>7</sup> Successful completion of the AAS Paralegal/Legal Assistant program meets the current eligibility requirements needed to qualify to take the Certified Legal Assistant Examination; however, additional education or professional experience may be required in the future.
- \* Elective (3 credit hours): POFI 1301 or 2301
- \*\* Open Elective (3 credit hours)
- \*\*\* Electives (9 credit hours): BUSI 2301, CRIJ 1306 or 1310, LGLA 1305, 1347, 1380, or 2333, or RELE 1309

NOTE: No substitutions permitted, unless specified.

**CERTIFICATES**

**Paralegal General Certificate**

29 credit hours

**FIRST YEAR**

**First Semester**

- LGLA 1303 Legal Research
- LGLA 1307 Introduction to Law and the Legal Professions
- LGLA 1346 Civil Litigation I
- LGLA 2307 Law Office Management
- \*Elective Technology Elective

**Second Semester**

- LGLA 1353 Wills, Trusts, and Probate Administration
- LGLA 1355 Family Law
- LGLA 2239 Certified Legal Assistant Review (Capstone)<sup>1</sup>
- LGLA 2303 Torts and Personal Injury Law
- \*\*Elective Law Elective

- <sup>1</sup> Successful completion of the Paralegal Certificate program does not, in and of itself, qualify a student to take the Certified Legal Assistant Examination. Additional education or professional experience may be required.
- \* Electives (3 credit hours): COSC 1300, POFI 1301 or 2301
- \*\* Electives (3 credit hours): BUSI 2301, CRIJ 1306 or 1310, LGLA 1305, 1347, 1380, or 2333, or RELE 1309

NOTE: No substitutions permitted

**Program Coordinator:**

Mary Milford . . . . .CYC-B325 . . . . .972.985.3709

**Academic Advisor:**

Al Gober . . . . .PRC-F143 . . . . .972.377.1780

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 to verify course transferability.

**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
- Property Management
- Education
- Finance
- Property Development

**AAS – Real Estate**

60 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>

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

## 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 1314 (recommended for transfer students)

<sup>2</sup> May substitute PHED 1338

<sup>3</sup> May substitute SPCH 1315 or 1321

<sup>4</sup> May substitute ECON 2301 or 2302

<sup>5</sup> May substitute PSYC 2301

<sup>6</sup> May substitute ARTS 1301, 1303, or 1304, DRAM 1310, HUMA 1302, MUSI 1306 or 1307, or any PHIL course

\* Electives (3-9 credit hours): RELE 1303, 1307, 1309, 1315, 1327, 1391, or 2331

\*\* Electives (0-6 credit hours): ACCT 2301, BMGT 1302 or 1303, BUSG 2309, BUSI 2301, HRPO 1392, ITSW 1304, RELE 1105, 1380, or 2103

## 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, 1303, 1307, 1309, 1311, 1315, 1319, 1321, 1325, 1327, 1380, 2103, 2331, or 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 1311 Real Estate Law of Contracts

RELE 2301 Law of Agency

RELE 2309 Principles of Real Estate II

##### Second Semester

RELE 1319 Real Estate Finance

RELE 1321 Real Estate Marketing

Elective\*

Elective\*

Capstone: Comprehensive exam

\* Electives (6 credit hours): RELE 1105, 1303, 1307, 1309, 1315, 1327, 1380, 2103, 2331, or 2381, TREC-approved accredited college-related courses, or other coursework approved by the program coordinator

## RESPIRATORY CARE

### Program Director:

David R. Gibson . . . . .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 CCCCAD academic advisor prior to beginning this program to verify course transferability.

### Additional Admission Requirements

- Provide proof of high school graduation or GED
- Submit official copies of all college transcripts
- Complete CCCCAD reading, writing and mathematics assessments
- Complete Psychological Services Bureau (PSB), Health Occupations Aptitude Exam

*NOTE: Italicized course numbers and titles denote AAS Core Curriculum.*

Registration is by permission only. Information and applications may be obtained from the program director 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 Certified Respiratory Therapist Self Assessment Exam (CRT SAE) will be given in the fall semester of the Second Year. The Registered Respiratory Therapist Self Assessment Exam (RRT SAE) will be given in the spring semester. Satisfactory completion of these exams 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.
- Complete the written and skills exam in RSPT 2139 according to the standards set by the American Heart Association.

### 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	1411	Respiratory Care Procedures II
RSPT	2310	Cardiopulmonary Disease

### Summer

RSPT	1362	Clinical III – Respiratory Therapy Technician
RSPT	1471	Respiratory Care Procedures III

### SECOND YEAR

#### First Semester

MATH	1314	College Algebra <sup>1</sup>
PSYC	2301	General Psychology <sup>2</sup>
RSPT	2355	Critical Care Monitoring
RSPT	2360	Clinical IV – Respiratory Therapy Technician
RSPT	2453	Neonatal/Pediatric Cardiopulmonary Care

#### Second Semester

BIOL	2420	Microbiology
ENGL	1301	Composition/Rhetoric I
HUMA	1301	Introduction to the Humanities <sup>3</sup>
RSPT	2139	Advanced Cardiac Life Support
RSPT	2231	Clinical Simulations in Respiratory Care
RSPT	2247	Specialties in Respiratory Care
RSPT	2361	Clinical V – Respiratory Therapy Technician (Capstone)

<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, 1303, or 1304, DRAM 1310, HUMA 1302, MUSI 1306 or 1307, or any PHIL course

## SEMICONDUCTOR MANUFACTURING TECHNOLOGY

### Program Coordinator:

Wayne Jones . . . . .PRC-H230A . . . . .972.377.1676

### Academic Advisor:

Terrence Brennan . . . . .PRC-F142 . . . . .972.377.1778

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

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

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 CCCCD academic advisor prior to beginning this program to verify course transferability.

### Career Opportunities

Students successfully completing the Semiconductor Manufacturing Technology program will be prepared for employment in the following career areas:

- Manufacturing
- Equipment Technician
- Integrated Circuit Test Technician
- Clean Room Technician

### AAS – Semiconductor Manufacturing Technology

70 credit hours

#### FIRST YEAR

##### First Semester

- CETT 1403 DC Circuits  
*ENGL 1301 Composition/Rhetoric I*  
*MATH 1314 College Algebra*  
 PHYS 1401 General Physics I  
 SMFT 1343 Semiconductor Manufacturing Technology I

##### Second Semester

- CETT 1405 AC Circuits  
 CHEM 1405 Introduction to Chemistry I  
 CPMT 2337 Microcomputer Interfacing  
*HUMA 1301 Introduction to the Humanities<sup>1</sup>*  
 MATH 1316 Trigonometry

##### Summer

- CETT 1425 Digital Fundamentals  
 CETT 1429 Solid State Devices

#### 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>2</sup>*

##### Second Semester

- ELMT 2437 Electronic Troubleshooting, Service, and Repair  
 INMT 1447 Industrial Automation  
*PSYC 2302 Applied Psychology<sup>3</sup>*  
 Elective\*  
 Capstone: Comprehensive exam

- <sup>1</sup> Select from ARTS 1301, 1303, or 1304, DRAM 1310, HUMA 1302, MUSI 1306, or 1307, or any PHIL course  
<sup>2</sup> May substitute SPCH 1315 or 1321  
<sup>3</sup> May substitute PSYC 2301  
 \* Electives (3 credit hours): CETT 2380 or SMFT 2343

### CERTIFICATES

#### Semiconductor Manufacturing Operator Certificate

38 credit hours

#### FIRST YEAR

##### First Semester

- CETT 1403 DC Circuits  
 ENGL 1301 Composition/Rhetoric I  
 MATH 1314 College Algebra<sup>1</sup>  
 PSYC 2302 Applied Psychology  
 SMFT 1343 Semiconductor Manufacturing Technology I

##### Second Semester

- CETT 1405 AC Circuits  
 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> May substitute a higher level mathematics course

### TELECOMMUNICATIONS TECHNOLOGY

Also a Tech Prep Program

#### Program Coordinator:

Wayne Jones . . . . .PRC-H230A . . . . .972.377.1676

#### Academic Advisor:

Terrence Brennan . . . . .PRC-F136 . . . . .972.377.1778

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

NOTE: *Italicized course numbers and titles denote AAS Core Curriculum.*



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 CCCCAD academic advisor prior to beginning this program to verify course transferability.

### 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

### AAS – Telecommunications Technology

71 credit hours

#### FIRST YEAR

##### First Semester

CETT 1409 DC-AC Circuits  
 ENGL 1301 *Composition/Rhetoric I*  
 INTC 1305 Introduction to Electronic Instrumentation  
 MATH 1314 *College Algebra*<sup>1</sup>  
 SPCH 1311 *Fundamentals of Speech Communication*<sup>2</sup>

##### Second Semester

CETT 1325 Digital Fundamentals<sup>3</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> May substitute a higher level MATH course
- <sup>2</sup> May substitute SPCH 1315 or 1321
- <sup>3</sup> Tech Prep course which may have been completed in high school
- <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, 1303, or 1304, DRAM 1310, HUMA 1302, MUSI 1306 or 1307, or any PHIL course
- <sup>6</sup> May substitute PSYC 2301

### CERTIFICATES

#### Telecommunications Technology Certificate

34 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.

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

# 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, and capital budgeting. 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. Prerequisite: POFT 1329 or a keyboarding class taken in high school. 3 credit hours. (W)

### **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. 2 credit hours.

*NOTE: May not be used to satisfy the requirements of an associate degree.*

### **ACPE 1200 Career Planning and College Survival**

Acquire skills and information to facilitate successful achievement of educational and career goals, including identifying values and interests, career influences, goal setting and decision making, informational interviewing, resume development, as well as an understanding of programs and resources at CCCCD. 2 credit hours.

*NOTE: May not be used to satisfy the requirements of an associate degree.*



COLLIN  
COUNTY  
COMMUNITY  
COLLEGE  
DISTRICT

**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. Prerequisites: ARTC 1325 and IMED 1211. 3 credit hours. (W)

**ARTC 1302 Digital Imaging I**

*Formerly ARTC 2305*

Digital imaging using raster image editing and/or image creation software: scanning, resolution, file formats, output devices, color systems, and image-acquisitions. Lab required. Prerequisite: ARTC 1325. 3 credit hours. (W)

**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. Lab required. Prerequisite: ARTC 2311. 3 credit hours. (W)

**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. (W)

**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. (W)

**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 1353. 3 credit hours. (W)

**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. (W)

**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 surf mapping. Lab required. Prerequisites: ARTC 1325 and 2305. 3 credit hours. (W)

**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. (W)

**ARTC 1353 Computer Illustration I**

Implementation of software for illustration and/or photo manipulation for reproduction. Lab required. Prerequisites: ARTC 1321 and 1325. 3 credit hours (W)

### **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. (W)

#### **Industrial Design**

This course will initiate the student in the process of conceptualizing a consumer product through to construction of a 3-D model for prototyping. The student will be required to research, conceptualize, and critique each other's design ideas for introduction into 3-D software. Upon completion of this course, the student will have produced a prototype-ready 3-D model and a full photorealistic render of their design. Prerequisite: ARTC 1321 or 2305 or consent of coordinator.

### **ARTC 2305 Digital Imaging II**

*Replaces GRPH 1357*

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. Prerequisites: ARTC 1302. 3 credit hours. (W)

### **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. (W)

### **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. (W)

### **ARTC 2313 Digital Publishing II**

Layout procedures from thumbnails and roughs to final comprehensive and printing; emphasis on design principles for the creation of advertising and publishing materials, and techniques for efficient planning and documenting projects. Lab required. Prerequisites: ARTC 1325 and 1327. 3 credit hours. (W)

### **ARTC 2331 Illustration Concepts**

Advanced study of illustration media using digital and/or traditional tools. Emphasis on conceptualization and composition. Lab required. Prerequisite: ARTC 1321. 3 credit hours. (W)

### **ARTC 2335 Portfolio Development for Graphic Design**

Preparation of a portfolio comprised of completed graphic design class projects. Evaluation and demonstration of portfolio presentation methods based on the student's specific area of study. Lab required. 3 credit hours. (W)

### **ARTC 2340 Computer Illustration II**

*Replaces GRPH 1359*

Advanced use of software capabilities with emphasis on various output procedures, the resolution of complex design issues, and concept development. Lab required. Prerequisite: ARTC 1353. 3 credit hours. (W)

### **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, and animation. Lab required. Prerequisite: ARTC 1341. 3 credit hours. (W)

### **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. Lab required. Prerequisite: ARTC 1349. 3 credit hours. (W)

### **ARTC 2371 Advanced 2-D Computer Animation**

Advanced work in 2-D animations. Further development of animated graphics and art for video, film, or interactive media with emphasis on scripting. Lab required. Prerequisite: ARTC 1301. 3 credit hours. (W)

### **ARTC 2372 Character Animation and Rendering**

*Formerly FLMC 1391 Special Topic Character Animation and Rendering*

Advanced work in 3-D animation. Students are exposed to state-of-the-art software and hardware with emphasis on 3-D modeling and character animation pertaining to the entertainment industry. Prerequisite: Consent of instructor. 3 credit hours. (W)

### **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. (W)

### **ARTC 2379 Computer Game Development**

Students will learn how to assemble a working computer game prototype. Instruction will draw upon skills learned in graphics and programming prerequisite courses. The objectives of this

*(W) Indicates a Workforce Education (WECM) course.*

course are designed to show students how to integrate 2-D and 3-D graphics, animation, audio and source code for a 3-D gaming engine. Prerequisites: ARTC 2341 and COSC 2420 or 2320. 3 credit hours. (W)

### **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 (Basic 2-D)**

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.

*NOTE: Students should expect additional supply costs.*

### **ARTS 1312 Design II (Basic 3-D)**

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.

*NOTE: Students should expect additional supply costs.*

### **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.

*NOTE: Students should expect additional supply costs.*

### **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.

*NOTE: Students should expect additional supply costs.*

### **ARTS 1325 Airbrush**

Introduces the airbrush as a tool in art and design, with emphasis on texture techniques and classroom exercises. Lab required. 3 credit hours.

*NOTE: Students should expect additional supply costs.*

### **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.

*NOTE: Students should expect additional supply costs.*

### **ARTS 2312 Design IV (Advanced Design)**

Large-scale design projects combining 2-D and 3-D including installations and multisensory environments. Lab required. Prerequisites: ARTS 1311 and 1312. 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.

*NOTE: Students should expect additional supply costs.*

### **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.

*NOTE: Students should expect additional supply costs.*

### **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.

*NOTE: Students should expect additional supply costs.*

### **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.

*NOTE: Students should expect additional supply costs.*

### **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.

*NOTE: Students should expect additional supply costs.*

### **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.

*NOTE: Students should expect additional supply costs.*

### **ARTS 2333 Printmaking III Course Listing**

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 2341 Art Metals I**

Exploration of sculptural forms using non-ferrous and precious metals. Metal construction and jewelry making techniques including soldering, lost wax casting, cold connections, patinas and surface embellishment. Lab required. Prerequisite: Arts 1312. 3 credit hours.

### **ARTS 2342 Art Metals II**

Continuation of Art Metals I with emphasis on advanced techniques and individual creative expression. Lab required. Prerequisite: ARTS 2341. 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.

*NOTE: Students should expect additional supply costs.*

### **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.

*NOTE: Students should expect additional supply costs.*

### **ARTS 2348 Digital Art I**

*Formerly ARTS 2331*

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. Lab required. Prerequisite: ARTS 1316. 3 credit hours.

### **ARTS 2349 Digital Art II**

*Formerly ARTS 2332*

Continuation of ARTS 2348. Lab required. Prerequisite: ARTS 2348. 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.

*NOTE: Students should expect additional supply costs.*

### **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.

*NOTE: Students should expect additional supply costs.*

### **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.

*NOTE: Students should expect additional supply costs.*

### **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.

*NOTE: Students should expect additional supply costs.*

### **ARTS 2371 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. Lab required. Prerequisite: Advanced class in field of study. 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.

## **B**

### **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 Systems Analysis and Design**

Study of software design, implementation, and validation techniques through team projects. Lab required. Prerequisite: One year experience with a programming language or consent of instructor. 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 and Diet Therapy**

Applications of nutrition principles and techniques of nutrition care for healthy individuals and patients/clients at nutritional risk. Nutrition risk screening, interviewing/counseling methods, diet evaluation, basic diet calculations, and documentation. 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.

### **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. Prerequisite: Pass reading section of TASP; high school chemistry is recommended. 4 credit hours.

*\* This course is also offered through the Center for Advanced Study in Mathematics and Natural Sciences (CASMS). Please see page 68 for further information.*

### **BIOL 1407 General Biology II\***

For science majors. Continuation of BIOL 1406. The biology of the protists, 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.

*\* This course is also offered through the Center for Advanced Study in Mathematics and Natural Sciences (CASMS). Please see page 68 for further information.*

### **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 protists, 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**

For science majors. 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 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 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 cell structure and function, tissues, and the skeletal, muscular, and nervous systems. Emphasis is on structure, function, and the interrelationships of the human systems. Lab required. Prerequisite: BIOL 1406, two years of high school biology within the last three years or consent of program coordinator. 4 credit hours.

**BIOL 2402 Anatomy and Physiology II**

Continued study of structure and function as related to the human circulatory, respiratory, urinary, digestive, reproductive, and endocrine systems. Emphasis placed on the interrelationships of these systems. Lab required. Prerequisite: BIOL 2401 within the last five years. 4 credit hours.

**BIOL 2404 Human Anatomy and Physiology Basic**

A one-semester survey of 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. Prerequisite: SRGT 1301 or consent of instructor. 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 body. 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. (W)

**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. (W)

**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.

(W) Indicates a Workforce Education (WECM) course.



**BITC 1401 Biotechnology Laboratory Instrumentation**

Theory, applications, and operation of various analytical instrumentation. Separation and identification techniques including electrophoresis, spectrophotometry, and chromatography emphasized. Lab required. Prerequisite: BITC 1402. 4 credit hours. (W)

**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. (W)

**BITC 2386 Internship – Biological Technology/Technician**

A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. Contact the Cooperative Work Experience Office. Prerequisite: Consent of program coordinator. 3 credit hours. (W)

**BITC 2387 Internship – Biological Technology/Technician**

A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. Contact the Cooperative Work Experience Office. Prerequisite: Consent of program coordinator. 3 credit hours. (W)

**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. (W)

**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. (W)

**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. (W)

**BMGT 1303 Principles of Management**

Concepts, terminology, principles, theories, and issues in the field of management. 3 credit hours. (W)

**BMGT 1305 Communications in Management**

Basic theory and processes of communication skills necessary for the management of an organization's workforce. 3 credit hours. (W)

**BMGT 1307 High Performance Work Teams**

A study of the basic principles of building and sustaining teams in organizations, including team dynamics and process improvement. 3 credit hours. (W)

**BMGT 1342 Project Scope and Risk Management**

*Formerly BMGT 2370*

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 outcomes, and developing a process for controlling changes to the project. 3 credit hours. (W)

**BMGT 1343 Project Management**

*Formerly BMGT 1372*

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. (W)

**BMGT 1344 Negotiations and Conflict Management**

*Formerly BMGT 1370*

Theories which aid in the diagnosis of interpersonal and intergroup conflict. The role of manager as negotiator, intermediary, and problem solver. 3 credit hours. (W)

**BMGT 1382 Cooperative Education – Business Administration and Management, General**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

**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. (W)

**The Business of Theatre**

The Business of Theatre is a foundational course in the art of promotion/marketing for the arts. Students will discuss and create plans for self-promotion (actors, choreographers, directors, designers, composers, technicians), as well as individual

...Continued on Next Page

(W) Indicates a Workforce Education (WECM) course.

event promotion and “season” promotion/marketing. Unions and union contracts are examined, along with the various processes and techniques for graphic arts marketing.

### **BMGT 1396 Special Topics in General Retailing Operations**

Topics address recently identified current events, skills, knowledge, and attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. 3 credit hours. (W)

#### **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 motivate and identify. 3 credit hours. (W)

### **BMGT 2310 Financial Management**

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. (W)

### **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. (W)

### **BMGT 2331 Principles of 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. (W)

### **BMGT 2341 Strategic Management**

A study of the strategic management process, including analysis of how organizations develop and implement a strategy for achieving organizational objectives in a changing environment. 3 credit hours. (W)

### **BMGT 2382 Cooperative Education – Business Administration and Management, General**

Career-related activities encountered in the student’s area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

### **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. (W)

### **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 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. (W)

### **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. (W)

### **CDEC 1317 Child Development Associate Training I**

Based on the requirements for the Child Development Associate National Credential (CDA). Topics on CDA overview, general observation skills, and child growth and development overview. The four functional areas of study are creative, cognitive, physical, and communication. Lab required. 3 credit hours. (W)

*(W) Indicates a Workforce Education (WECM) course.*

**CDEC 1319 Child Guidance**

An exploration of guidance strategies for promoting prosocial behaviors with individual and groups of 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. (W)

**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. (W)

**CDEC 1323 Observation and Assessment**

A study of child development observation, assessment skills and techniques. Lab required. 3 credit hours. (W)

**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. (W)

**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. (W)

**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. (W)

**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. (W)

**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. (W)

**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. (W)

**CDEC 1342 Intro to Montessori**

This course summarizes specific areas in child care 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. (W)

**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. (W)

**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. (W)

**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. (W)

**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. (W)

**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. (W)

**CDEC 1392 Special Topics In Child Development**

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. (W)

**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. (W)

### **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. (W)

### **CDEC 2166 Practicum-Child Development and Early Childhood-Provider/Assistant**

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Lab required. Prerequisite: Consent of program coordinator. 1 credit hour. (W)

### **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. (W)

### **CDEC 2324 Child Development Associate Training III**

Continuation of the requirements for the Child Development Associate National Credential (CDA). Three of the 13 functional areas of study include family, program management and professionalism. Lab required. Prerequisite: CDEC 1317 and 2322. 3 credit hours. (W)

### **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. (W)

### **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. (W)

### **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. (W)

### **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. (W)

### **CDEC 2385 Cooperative Education – Child Development**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. Prerequisite: Consent of program coordinator. 3 credit hours. (W)

### **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. (W)

### **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. (W)

### **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. (W)

### **CETT 1329 Solid State Devices**

A study of diodes and other semiconductor devices, including analysis of static and dynamic characteristics, biasing techniques, and thermal considerations. Lab required. 3 credit hours. (W)

### **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. (W)

### **CETT 1380 Cooperative Education-Computer Engineering Technology/Technician**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

*(W) Indicates a Workforce Education (WECM) course.*

**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. (W)

**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. Prerequisite: CETT 1403 or consent of instructor. 4 credit hours. (W)

**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. (W)

**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. (W)

**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. (W)

**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. (W)

**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. (W)

**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. (W)

**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. (W)

**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. (W)

**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. (W)

**CETT 2380 Cooperative Education-Computer Engineering Technology/Technician**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

**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. (W)

**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: Pass reading section of TASP; 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.

*\*This course is also offered through the Center for Advanced Study in Mathematics and Natural Sciences (CASMNS). Please see page 68 for further information.*

### **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 five years with a grade of "C" or better. 4 credit hours.

*\*This course is also offered through the Center for Advanced Study in Mathematics and Natural Sciences (CASMNS). Please see page 68 for further information.*

### **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 and recitation required. Prerequisite: CHEM 1405 or 1411. 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.

### **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. All Course Listing

### **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 CCCC 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.

(W) Indicates a Workforce Education (WECM) course.

**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.

**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 students with interest or major in mass communications, radio, TV, or film. 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 1420 Introduction to Programming – 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 or equivalent computer literacy competencies; corequisite: MATH 1314. 4 credit hours.

**COSC 1437 Object-Oriented Programming – Java**

*Replaces ITSE 2317*

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. Lab required. Prerequisite: COSC 1320 or 1420. 4 credit hours.

**COSC 2315 Object-Oriented Data Structures – 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 – C++**

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 2420 Introduction to Object-Oriented Programming – 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.

**COSC 2436 Object-Oriented Data Structures – Java**

Using Java language, an in-depth look at records, linked lists, stacks, queues, binary trees, recursion, file processing, searching, and sorting techniques. Lab required. Prerequisite: COSC 1437 or equivalent experience. 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. (W)

**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. (W)

**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. (W)

**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. (W)

**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; and 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.

**CSIR 1344 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. (W)

**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. (W)

**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. (W)

*NOTE: Culinary lab classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds), reaching, bending, and working around open flames and with cleaning chemicals.*

**CULA 1341 American Regional Cuisine**

A study of the development of regional cuisines in the United States with emphasis on the similarities in production and service systems. Application of skills to develop, organize, and build a

(W) Indicates a Workforce Education (WECM) course.



portfolio of recipe strategies and production systems. Professional chef uniform and kitchen tools required. Lab included. 3 credit hours. (W)

*NOTE: Culinary lab classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds), reaching, bending, and working around open flames and with cleaning chemicals.*

### **CULA 1345 International Cuisine**

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. (W)

*NOTE: Culinary lab classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds), reaching, bending, and working around open flames and with cleaning chemicals.*

### **CULA 1380 Cooperative Education – Culinary Arts/Chef Training**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

### **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. (W)

*NOTE: Culinary lab classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds), reaching, bending, and working around open flames and with cleaning chemicals.*

### **CULA 2331 Advanced Food Preparation**

Topics include the concept of pre-cooked food items and the preparation of canapès, hors d'oeuvres, and breakfast items. Reinforces the course material of CULA 2301. Professional chef uniform and kitchen tools required. Lab included. 3 credit hours. (W)

*NOTE: Culinary lab classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds), reaching, bending, and working around open flames and with cleaning chemicals.*

### **CULA 2581 Cooperative Education- Culinary Arts/Chef Training**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 5 credit hours. (W)

### **DANC 1101 Dance Improvisation**

Exploration of movement and visual design leading to choreographic studies. Focus on developing creative potential, personal movement style and expressiveness. Emphasis on experiencing new kinds of movement, making connections among varied movement ideas, seeking new relationships and learning to visualize ideas in dance. 1 credit hour.

### **DANC 1110 Tap Technique I**

*Formerly PHED 1142*

Performance of basic rhythms and techniques fundamental to beginning tap dance. Focus on body placement, terminology, and tap combinations. 1 credit hour.

### **DANC 1111 Tap Technique II**

*Formerly PHED 1143*

Further study of tap technique with focus on increased vocabulary and more complex rhythms and combinations. Emphasis on skill development, rhythmic accuracy, analysis and composition. Prerequisite: DANC 1110 or consent of instructor. 1 credit hour.

### **DANC 1122 Folk Technique**

*Formerly PHED 1144*

Analysis of cultural backgrounds, costumes, and dance techniques leading to participation in a variety of folk dances. 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 movement combinations of petit allegro and grande allegro, tours and adagio work. 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. Focus on the variety of jazz styles including: Funk, Lyrical, Musical Theatre and Street Jazz. 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. Focus on movement dynamics, musicality and modes of expression. 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 Dance Composition**

An exploration of choreographic tools with emphasis on design, dynamics, movement forms and stage space. Includes idea forming and shaping, structure, abstraction, phrasing and style. Emphasis on creative problem-solving skills, experiencing the artistic process skills as a choreographer and critic, utilizing choreographic devices and transforming ideas into movement. Prerequisite: DANC 1101. 2 credit hours.

**DANC 1212 Dance Practicum I**

Practicum in dance with emphasis on choreography. Application of compositional skills and idea forming and shaping. Focus on choreographic designs and the rehearsal process. Prerequisite: Consent of instructor. 2 credit hours.

**DANC 1213 Dance Practicum II**

Continuation of DANC 1212. Practicum in dance with emphasis on choreography. Prerequisite: DANC 1212 and consent of instructor. 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. Emphasis on experiencing and understanding the classical principles of ballet technique which include form, symmetry, balance, order, line, discipline and control. 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. Continued focus on developing and maintaining proper body alignment, rhythmic ability and performance of ballet variations. 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. Continued focus on developing and maintaining proper body alignment, rhythmic ability and performance of modern combinations. Prerequisite: DANC 1146 or consent of instructor. 1 credit hour.

**DANC 2146 Modern Dance Technique IV**

Advanced modern dance; continuation of DANC 2145, introducing more complex elements of classical and contemporary modern dance. Attention to improvisation, partnering and performing qualities. Continued focus on the integrated development of technique, perception, artistic expression and aesthetic involvement. 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 jazz 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 rhythmic structures and advanced jazz technique. Includes practice in jazz 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: DANC 1213 and consent of instructor. 2 credit hours.

*(W) Indicates a Workforce Education (WECM) course.*

**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 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 1358. 1 credit hour. (W)

**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. (W)

**DFTG 1309 Basic Computer-Aided Drafting**

An introduction to computer-aided drafting. Emphasis is placed on setup; creating and modifying geometry; storing and retrieving predefined shapes; placing, rotating, and scaling objects, adding text and dimensions, using layers, coordinating systems; and plot/print to scale. Lab required. 3 credit hours. (W)

**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 2319. 3 credit hours. (W)

**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. (W)

**DFTG 1333 Mechanical Drafting**

Detail drawings with proper dimensioning and tolerances, use of sectioning techniques, common fasteners, pictorial drawings including bill of materials. Lab required. Prerequisite: DFTG 1309. 3 credit hours. (W)

**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. (W)

**DFTG 1371 Mechanical Drafting-Fundamentals of Sheetmetal Design**

Teaches the skills required in designing sheetmetal parts and assemblies, troubleshooting and creating production drawings. All functions needed to create sheetmetal parts, drawings and assemblies are taught in this course. The lesson modules are structured to maximize hands-on interaction with the Pro/Sheetmetal module in Pro/Engineer. Lab required. Prerequisite: DFTG 2340. 3 credit hours. (W)

**DFTG 1380 Cooperative Education – Drafting**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

**DFTG 1391 Special Topics in Drafting**

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. (W)

**3-D Studio Max**

3-D 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.

**3-D Studio Max – Animation**

This, the third course offered in 3-D 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.

**3-D Studio Max - Lights and Materials**

Using 3-D Studio Max software, the study of lighting techniques and the application of materials to objects will be

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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.

#### **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**

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. (W)

#### **Parts Library Design**

Parts libraries are used with printed circuit board design software such as Mentor/Veribest. New parts are constantly being produced making it necessary to update parts libraries often. Accurate library databases are required for successful printed circuit board design. Lab required. Prerequisites: DFTG 1358, 2304, and 2356 or consent of instructor.

#### **Valor Enterprise Software**

Creation and maintenance of CAD/CAM (Computer Aided Design/Computer-Aided Manufacturing) communication channels using “intelligent file” transfer protocols that bi-directionally exchange embedded CAD/CAM “rules files” and “constraints” between the designer and the various manufacturing disciplines. Emphasis will be placed on DFM (Design for Manufacturability) and DFA (Design for Assembly), and DFT (Design for Test) analysis. Students will learn to use concurrent methodologies to seamlessly link CAD files to the CAM processes. Lab required. Prerequisites: DFTG 1358, 2304, and 2356 or consent of instructor.

### **DFTG 2300 Intermediate Architectural Drafting – Residential**

A continuation of principles and practices used in residential construction. Architectural drafting procedures, practices, and symbols including the preparation of detailed working drawings for a residential building, with emphasis on 3-dimensional editing and presentation methods and 2-story plans. Lab required. Prerequisite: DFTG 1317. 3 credit hours. (W)

### **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. (W)

### **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. (W)

### **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. (W)

### **DFTG 2317 Descriptive Geometry**

*Formerly DFTG 1356*

Graphical solutions to problems involving points, lines, and planes in space. Lab required. Prerequisite: DFTG 2319. 3 credit hours. (W)

### **DFTG 2319 Intermediate Computer – Aided Drafting**

A continuation of practices and techniques used in basic computer-aided drafting emphasizing advanced dimensioning techniques, the development and use of prototype drawings, construction of pictorial drawings, construction of 3-dimensional drawings, interfacing 2-D and 3-D environments and extracting data. Lab required. Prerequisite: DFTG 1309. 3 credit hours. (W)

### **DFTG 2321 Topographical Drafting**

*Formerly DFTG 1348*

Plotting of surveyors field notes, plotting elevations, contour drawings, plan and profiles, and laying out traverses. Lab required. Prerequisite: DFTG 1309. 3 credit hours. (W)

### **DFTG 2328 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 2319. 3 credit hours. (W)

*(W) Indicates a Workforce Education (WECM) course.*

**DFTG 2332 Advanced Computer-Aided Drafting**

Use of advanced techniques, including the use of a customized system and the principles of data manipulation for drawing production enhancement. Presentation of advanced drawing applications, such as three-dimensional modeling and linking graphic entities to external non-graphic data. Lab required. Prerequisite: DFTG 2319. 3 credit hours. (W)

**DFTG 2336 Computer-Aided Drafting Programming**

Use of programming language to enhance CAD software. Lab required. Prerequisite: DFTG 2319. 3 credit hours. (W)

**DFTG 2340 Solid Modeling/Design**

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 2319. 3 credit hours. (W)

**DFTG 2350 Geometric Dimensioning and Tolerancing**

Geometric dimensioning and tolerancing, according to standards, application of various geometric dimensions and tolerances to production drawings. Lab required. Prerequisite: DFTG 1309. 3 credit hours. (W)

**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. (W)

**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. (W)

**DFTG 2381 Cooperative Education – Drafting**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

**DFTG 2413 Basic Integrated Circuit Design**

The study of layout and design of integrated circuits. A lab-oriented course which concentrates on the layout design of Complementary Metal Oxide Semiconductor (CMOS) Digital Integrated Circuits. The course will cover CMOS circuits, basic digital layout building blocks, Metal Oxide Semiconductor (MOS) transistor theory, CMOS process technology, stick diagrams, layout techniques, and verification. Prerequisite: DFTG 1358. 4 credit hours. (W)

**DFTG 2433 Advanced Integrated Circuit Design**

Implementation of advanced techniques in the design of complex integrated circuits; projects require students to use multiple sets of design rules meeting industrial standards of current technologies. A lab-oriented course which concentrates on the layout design of Complementary Metal Oxide Semiconductor (CMOS) Analog Integrated Circuits. The course will cover CMOS Analog circuits, basic Analog layout building blocks, Bipolar transistor theory, CMOS process technology, stick diagrams, Analog layout techniques, and verification. Lab required. Prerequisite: DFTG 2413. 4 credit hours. (W)

**DHYG 1123 Dental Hygiene Practice**

Practice settings for the dental hygienist including office management, employment considerations, resume preparation, and job interviewing. Emphasis on the laws governing the practice of dentistry and dental hygiene, moral standards, and the ethical standards established by the dental hygiene profession. Prerequisites: DHYG 1227 and 1261. 1 credit hour. (W)

**DHYG 1207 General and Dental Nutrition**

General nutrition and nutritional biochemistry with emphasis on the effects of nutrition and dental health, diet, and application of counseling strategies. Prerequisite: DHYG 1331. 2 credit hours. (W)

**DHYG 1215 Community Dentistry**

The principles and concepts of community public health and dental health education emphasizing community assessment, educational planning, implementation, and evaluation, including 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, 1261, and ENGL 1301. 2 credit hours (W)

**DHYG 1227 Preventive Dental Hygiene Care**

The dental hygienist in the dental health care system emphasizing the basic concepts of disease prevention and health promotion. Communication and behavior modification skills are presented to facilitate the role of the dental hygienist as an educator. Prerequisites: BIOL 2420 and DHYG 1301 and 1331. 2 credit hours. (W)

**DHYG 1235 Pharmacology for the Dental Hygienist**

Classes of drugs and their uses, actions, interactions, side effects, contraindications, and systemic and oral manifestations with emphasis on dental applications. Prerequisite: DHYG 1331. 2 credit hours. (W)

**DHYG 1261 Clinical I - Dental Hygienist**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisites: BIOL 2420, DHYG 1301 and 1331. 2 credit hours. (W)

**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. (W)

**DHYG 1301 Orofacial Anatomy, Histology and Embryology**

The 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. (W)

**DHYG 1304 Dental Radiology**

Radiation physics, biology, hygiene, and safety theories with an 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. (W)

**DHYG 1311 Periodontology**

Normal and diseased periodontium including the structural, functional, and environmental factors. Emphasis on etiology, pathology, treatment modalities, and therapeutic and preventive periodontics in a contemporary practice setting. Prerequisites: DHYG 1227 and 1261. 3 credit hours. (W)

**DHYG 1319 Dental Materials**

Physical and chemical properties of dental materials including the application and manipulation of the various materials used in dentistry. Lab required. Prerequisites: CHEM 1405 or 1411, and DHYG 1311. 3 credit hours. (W)

**DHYG 1331 Preclinical Dental Hygiene**

Foundational knowledge for performing clinical skills on patients with 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. (W)

**DHYG 1339 General and Oral Pathology**

Disturbances in human body development, diseases of the body, and disease prevention measures with emphasis on the oral cavity and associated structures. Prerequisites: DHYG 1227 and 1261. 3 credit hours. (W)

**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. (W)

**DHYG 2201 Contemporary Dental Hygiene Care I**

Dental hygiene care for the medically or dentally compromised patient with emphasis on supplemental instrumentation techniques. Prerequisites: DHYG 1227 and 1261; Corequisites: DHYG 1123 and 2361. 2 credit hours. (W)

**DHYG 2231 Contemporary Dental Hygiene Care II**

Dental hygiene care for the medically or dentally compromised patient with emphasis on advanced instrumentation techniques. Prerequisites: DHYG 1235 and 1261. 2 credit hours. (W)

**DHYG 2361 Clinical II – Dental Hygienist**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisites: DHYG 1227 and 1261; Corequisites: DHYG 1123 and 2201. 3 credit hours. (W)

**DHYG 2363 Clinical III – Dental Hygienist**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisites: DHYG 1123, 2201, 2231, and 2361. 3 credit hours. (W)

(W) Indicates a Workforce Education (WECM) course.

**DRAM 1120 Theatre Practicum - Performance**

Practicum in theatre with emphasis on performance techniques and procedures, including a major performance role in a college production. May be combined with DRAM 1121 or repeated for a maximum total of 6 credit hours; flexible enrollment. Prerequisite: Consent of instructor. 1 credit hour.

**DRAM 1121 Theatre Practicum - Technical**

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 Music 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.

**DRAM 1322 Stage Movement**

An introductory study of the concepts of preparing and performing a role on stage with specific emphasis on the actors physicality and stage movement. This course will examine techniques of stage movement, to include mask and mime work, yoga, dance, the Alexander technique, Laban and LeCoq movement technique, and many others. Lab required. Prerequisite: DRAM 1351 or 1352. 3 credit hours

**DRAM 1323 Basic Theatre Practice**

An interactive practicum in theatre. Diverse topics of study will be offered on a rotating basis. Introduction to Directing has emphasis on directing technique and procedure, with experience gained through practical study. Introduction to Directing will be offered in the fall and/or spring semester. New York Field Studies, a course which introduces students first-hand to the performance and theory of the New York professional Theatre, will be offered during Summer II. Other topics of study will be offered periodically. Lab required. 3 credit hours.

**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 1370 Stage Management**

Examines the art of stage managing a play production, including rehearsal preparations, performance responsibilities, and production process documentation. Includes intensive examination of the fundamental duty of a successful stage manager, coordinating and facilitating each of the in the theatrical process, to include performers, directors, designers, and technicians. Lab required. 3 credit hours.

**DRAM 1373 Sound Design For the Theatre**

An in-depth study of the concepts of designing and operating sound for a live theatrical production. Lab required. 3 credit hours.

**DRAM 2120 Demonstration Lab**

Scenes, techniques and problems studied in various theatre classes are demonstrated to show contrast and different styles. Guest lectures, demonstration, and projects in Acting and Directing may also be presented. Preparation and performance in the demonstration laboratory may be related to specific productions. This course may be repeated for credit. Required for all Theatre majors. 1 credit hour.

**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: Improvisation**

General introduction to the techniques, practice, and performance of improvisational drama. Lab required. Prerequisite: DRAM 1351 or 1352. 3 credit hours.

**DRAM 2352 Acting IV: Acting for Film/TV**

Intensive examination of skills and techniques necessary for successful performances in film and television. 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 2363 History Of Musical Theatre**

Study of the forms and structures of the American musical theatre from its earliest forms through the present day. 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 2370 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 which highlight and depict the social concerns of contemporary youths. Lab required. 3 credit hours.

**DRAM 2372 Survey of Contemporary****American Drama Literature**

The purpose of this course is to increase your understanding and critical awareness of American dramatic literature since the late 1940s. Through a comparative study of American dramatic literature published within the last 50 years, you will learn techniques for analyzing play structure in a manner vital for the director, designer, playwright, and performer. You will read and discuss the works of such authors as O'Neill, Miller, Williams, Albee, Shepard, Mamet, and McNally, as well as the works of some authors who are not so well known. Lab required. 3 credit hours.

**DRAM 2373 Costume Design II**

The purpose of this course is to introduce the student to the costume design portion of costuming and to further the students knowledge of costume construction. This will be done through hands-on work, projects, and demonstrations. Lab required. 3 credit hours.

**DRAM 2374 Intermediate Makeup**

The purpose of this course is to introduce students to the intermediate art theatrical makeup. This course will be taught through lectures, and demonstrations followed by student applications of techniques demonstrated. Students will learn the application of wigs and hair, prosthetic work, nonrealistic makeup, working in different venues. Lab required. 3 credit hours.

**DRAM 2375 Lighting Design**

This course introduces the theory and practice of stage lighting. It includes an overview of the history of lighting design, electrical theory, instrumentation, control, and basic design principles. Practical applications of theatrical lighting are emphasized. Lab required. 3 credit hours.

**DRAM 2376 Stage Combat and Circus Skills**

Development of advanced specialty skills and techniques of acting including advanced character analysis. Focuses on mechanics of the body as a tool for the actor. Emphasis on stage fighting, circus skills, stage stunt work, and on complex stage combat techniques and choreography. Includes an instructional component, where the student will teach and/or direct staged fight scenes. Lab required. 3 credit hours.

**DRAM 2377 Shakespeare: Shakespeare On Stage****(Acting Shakespeare)**

Students will experience language as physical, exploring through exercises and scene work how to employ the meaning, music, and power of the language in the creation of living characters onstage, to engage the audience in the most dynamic Shakespeare possible. Lab required. 3 credit hours.

*(W) Indicates a Workforce Education (WECM) course.*



**DRAM 2378 Shakespeare: World And Words  
(Shakespearean Text Analysis)**

A back-to-basics exploration of the fundamental tool of Shakespeare acting the text from the actors point of view. What clues for the actor are in the words themselves? How are we meant to use devices such as the verse rhythm, the sounds of the language, and the word choices to bring the character to life, to discover the most dynamic performance of the scene, to excite thought and feeling in an audience. Lab required. 3 credit hours.

**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 CWE Office. 3 credit hours.

**E**

**ECON 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.

**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. Prerequisites and topics covered will be annotated in each semester's Schedule of Classes. Lab required. 1 credit hour. (W)

**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. (W)

**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. (W)

**EECT 1302 Introduction to Videoconferencing**

An introduction to the videoconferencing protocol. Topics include imaging, display, and control equipment. Lab required. 3 credit hours. (W)

**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. (W)

**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. (W)

**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. (W)

(W) Indicates a Workforce Education (WECM) course.

**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. (W)

**EECT 1380 Cooperative Education - Electrical Electronic and Communications Engineering Technology/Technician**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

**EECT 1381 Cooperative Education - Electrical Electronic and Communications Engineering Technology/Technician**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

**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. (W)

**EECT 1444 Telecommunications Broadband Systems**

A survey of telecommunications broadband transmissions systems including protocols, testing, applications and safety practices. Lab required. 4 credit hours. (W)

**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. (W)

**EECT 1491 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. 4 credit hours. (W)

**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. (W)

**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. (W)

**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. (W)

**EECT 2340 Telecommunications Central Office Equipment**

An examination of the theory, operation, and maintenance of central office telecommunications equipment. Lab required. 3 credit hours. (W)

**EECT 2342 Telecommunications Private Bench Exchange PBX**

An examination of the theory, operation, and maintenance of PBX telecommunications equipment. Lab required. 3 credit hours. (W)

**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. (W)

**EECT 2435 Telecommunications**

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. (W)

**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. (W)

(W) Indicates a Workforce Education (WECM) course.

**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. (W)

**EECT 2444 Telecommunications Tandem Switching Equipment**

An examination of the theory, operation, and maintenance of tandem telecommunications switching equipment. Lab required. 4 credit hours. (W)

**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. (W)

**ELMT 1405 Basic Fluid Power**

Basic fluid power course including pneumatics, vacuum and hydraulics; symbols, theory, components, and basic electrical controls. Lab required. 4 credit hours. (W)

**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. Lab required. 4 credit hours. (W)

**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. (W)

**EMSP 1160 Clinical – Emergency Medical Technology/Technician - Basic**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. 1 credit hour. (W)

**EMSP 1161 Clinical – Advanced I**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. 1 credit hour. (W)

**EMSP 1162 Clinical – Advanced II**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. 1 credit hour. (W)

**EMSP 1205 Emergency Care Attendant**

First responder course in emergency medical care. Emphasis on requirements of national and state accrediting agencies. 2 credit hours. (W)

**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. (W)

**EMSP 1355 Trauma Management**

A detailed study of the knowledge and skills in the assessment and management of patients with traumatic injuries. 3 credit hours. (W)

**EMSP 1356 Patient Assessment and Airway Management**

A detailed study of the knowledge and skills required to perform patient assessment and airway management. 3 credit hours. (W)

**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. (W)

**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. (W)

**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. (W)

**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. (W)

(W) Indicates a Workforce Education (WECM) course.

**EMSP 2260 Clinical – Advanced III**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. 2 credit hours. (W)

**EMSP 2330 Special Populations**

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. (W)

**EMSP 2338 EMS Operations**

A detailed study of the knowledge and skills to safely manage the scene of an emergency. 3 credit hours. (W)

**EMSP 2434 Medical Emergencies**

A detailed study of the knowledge and skills in the assessment and management of patients with medical emergencies. 4 credit hours. (W)

**EMSP 2444 Cardiology**

A detailed study of the knowledge and skills in the assessment and management of patients with cardiac emergencies. 4 credit hours. (W)

**EMSP 2563 Clinical – Advanced IV**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. 5 credit hours. (W)

**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. 3 credit hours.

*NOTE: May not be used to satisfy the requirements of an associate degree.*

**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. Prerequisite: ENGL 0300 or assessment. 3 credit hours.

*NOTE: May not be used to satisfy the requirements of an associate degree.*

**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. 3 credit hours.

*NOTE: May not be used to satisfy the requirements of an associate degree.*

**ENGL 0315 Writing, Reading, 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.

*NOTE: May not be used to satisfy the requirements of an associate degree.*

**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.

**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 origin 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 1201 Introduction to Engineering**

Introduction to engineering as a discipline and a profession. Includes instruction in the application of mathematical and scientific principles to the solution of practical problems for the benefit of society. Lab required. 2 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 2305 Circuits I For Electrical Engineering**

*Replaces ENGR 2405*

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 phasors. Laboratory experiments demonstrate basic circuit and network laws and acquaint students with electrical instruments. Lab required. Prerequisites: MATH 2413, 2414, and 2415. Corequisite: MATH 2320. 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.

### **ENGT 1401 Circuit Analysis I**

Fundamental concepts of electrical science covering potential, current and power in DC circuits. Fundamental laws and relationships applied to the analysis of circuits and networks: capacitance, inductance and magnetism; single-frequency concepts; the use of computer software in design and analysis of circuits. Lab required. Prerequisite/corequisite: MATH 2412. 4 credit hours.

### **ENGT 1402 Circuit Analysis II**

Complex AC circuit analysis. Network theorems, transient analysis, resonance, filters, AC power and three-phase circuits are covered in detail. Applications of computer-assisted solutions are continued. Prerequisite: ENGT 1401. Prerequisite/corequisite: MATH 2413. 4 credit hours.

### **ENGT 1407 Digital Fundamentals**

Digital logic circuits and techniques. Analysis, design and simulation of combinational and sequential systems using: classical Boolean algebra techniques, laboratory hardware experiments and computer simulation. Introduction to programmable logic devices (PLDs) and application-specific integrated circuits using software tools for the design and analysis of digital logic circuits and systems. Lab required. Prerequisite: COSC 1420 or equivalent. 4 credit hours.

### **ENTC 1380 Cooperative Education – Engineering Technology/Technician – General**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

### **ENTC 2380 Cooperative Education – Engineering Technology/Technician – General**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. Prerequisite: ENTC 1380. 3 credit hours. (W)

### **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 eco-systems of central and west Texas, including the effects of human impact. Taught by geologists and biologists; requires camping field trips. 4 credit hours.

### **ESLC 0300 ESL Conversation I**

Develops non-native speakers' listening and speaking skills in order to facilitate natural conversation. Prerequisite: Assessment. 3 credit hours.

*NOTE: May not be used to satisfy the requirement for an associate degree*

### **ESLC 0305 ESL Conversation II**

Continues to develop non-native speakers' listening and speaking skills in order to facilitate natural conversation. Prerequisite: ESLC 0300 or assessment. 3 credit hours.

*NOTE: May not be used to satisfy the requirement for an associate degree*

### **ESLC 0310 ESL Conversation III**

Further develops non-native speakers' listening and speaking skills in order to facilitate natural conversation. Prerequisite: ESLC 0305 or assessment. 3 credit hours.

*NOTE: May not be used to satisfy the requirement for an associate degree.*

### **ESLC 0320 ESL Conversation: Pronunciation**

Pronunciation of individual phonemes, word and sentence stress, and intonation. Addresses pronunciation problems of specific language groups. Prerequisite: ESLC 0305, assessment, or instructor consent. 3 credit hours.

*NOTE: May not be used to satisfy the requirement for an associate degree.*

### **ESLG 0300 ESL Grammar I**

Targeted grammar structures: word order, parts of speech, nouns and pronouns, negative formation, question formation, "to be", and articles. Prerequisite: Assessment. 3 credit hours.

*NOTE: May not be used to satisfy the requirement for an associate degree.*

*(W) Indicates a Workforce Education (WECM) course.*

**ESLG 0305 ESL Grammar II**

Continued instruction in targeted grammar structures: verb tenses, verbs in context, passive voice, and modals. Prerequisite: ESLG 0300 or assessment. 3 credit hours.

*NOTE: May not be used to satisfy the requirement for an associate degree.*

**ESLG 0310 ESL Grammar III**

Continued instruction in targeted grammar structures: gerunds and infinitives, prepositions, comparatives, and superlatives. Prerequisite: ESLG 0305 or assessment. 3 credit hours.

*NOTE: May not be used to satisfy the requirement for an associate degree.*

**ESLG 0315 ESL Grammar IV**

Continued instruction in targeted grammar structures: noun clauses, adjective clauses, and adverb clauses. Prerequisite: ESLG 0310 or assessment; corequisite: ESLW 0315. 3 credit hours.

*NOTE: May not be used to satisfy the requirement for an associate degree.*

**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. Prerequisite: ESLC 0310, ESLR 0310, or assessment. 3 credit hours.

*NOTE: May not be used to satisfy the requirement for an associate degree.*

**ESLR 0300 ESL Reading I**

Beginning reading comprehension of English for non-native speakers. Prerequisite: Assessment. 3 credit hours.

*NOTE: May not be used to satisfy the requirement for an associate degree.*

**ESLR 0305 ESL Reading II**

Intermediate reading comprehension of English for non-native speakers. Prerequisite: ESLR 0300 or assessment. 3 credit hours.

*NOTE: May not be used to satisfy the requirement for an associate degree.*

**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. Prerequisite: ESLR 0305 and ESLC 0305 or assessment. 3 credit hours.

*NOTE: May not be used to satisfy the requirement for an associate degree.*

**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. Prerequisite: ESLR 0310 or assessment. 3 credit hours.

*NOTE: May not be used to satisfy the requirement for an associate degree.*

**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.

*NOTE: May not be used to satisfy the requirement for an associate degree.*

**ESLV 0305 ESL Vocabulary: Idioms**

Teaches idiomatic English to second language learners. Prerequisite: ESLC 0305 and ESLR 0300, instructor or coordinator consent, or assessment. 3 credit hours.

*NOTE: May not be used to satisfy the requirement for an associate degree.*

**ESLW 0300 ESL Writing I**

Beginning writing skills for non-native speakers. Focuses on sentence level to one-paragraph essays. Prerequisite: Assessment. 3 credit hours.

*NOTE: May not be used to satisfy the requirement for an associate degree.*

**ESLW 0305 ESL Writing II**

Intermediate writing skills for non-native speakers. Focuses on multi-paragraph essays and various modes of writing. Prerequisite: ESLW 0300 and ESLG 0300 or assessment; corequisite: ESLG 0305. 3 credit hours.

*NOTE: May not be used to satisfy the requirement for an associate degree.*

**ESLW 0310 ESL Writing III**

Advanced writing skills for non-native speakers. Focuses on multi-paragraph essays. Prerequisite: ESLW 0305 and ESLG 0305 or assessment; corequisite: ESLG 0310. 3 credit hours.

*NOTE: May not be used to satisfy the requirement for an associate degree.*

**ESLW 0315 ESL Writing IV**

Advanced 5-paragraph essay writing for non-native speakers. Designed for students planning to take ENGL 1301. Prerequisite: ESLW 0310 and ESLG 0310 or assessment; corequisite: ESLG 0315. 3 credit hours.

*NOTE: May not be used to satisfy the requirement for an associate degree.*

**F****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. (W)

### **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. (W)

### **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. (W)

### **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. (W)

### **FIRS 1233 Firefighter Certification VII**

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. (W)

### **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: FIRS 1207 and college entrance level math skills. 3 credit hours. (W)

### **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: FIRS 1223 and college entrance level math skills. 3 credit hours. (W)

### **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. (W)

### **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. (W)

### **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. (W)

### **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. (W)

### **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. (W)

### **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. (W)

### **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. (W)

### **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. (W)

### **FIRT 1338 Fire Protection Systems**

Study of fire detection, alarm, and extinguishing systems. Lab recommended. 3 credit hours. (W)

### **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. (W)

### **FIRT 1347 Industrial Fire Protection**

Study of industrial emergency response teams and specific concerns related to business and industrial facilities. 3 credit hours. (W)

(W) Indicates a Workforce Education (WECM) course.



**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. (W)

**FIRT 1355 Methods Of Teaching**

Preparation of public safety personnel to effectively teach technical skills, techniques, and information. 3 credit hours. (W)

**FIRT 2351 Company Fire Officer**

*Formerly FIRT 2370*

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. (W)

**FLMC 1301 History of Animation**

*Formerly ARTC 1371*

The evolution of 2-D and 3-D animations. This class teaches students traditional forms of animation including cell, stop-motion and zoetropes. Students will also learn the history and evolution of the animation art form. Students will produce original animations utilizing traditional techniques as projects. 3 credit hours. (W)

**FLMC 1331 Computers in Video Production I**

Applications of computers to digital film production. Design of computer graphic workstations and development of a rationale for selecting software, hardware, and peripherals. Lab required. Prerequisites: ARTC 1307, 1353, and 1302. 3 credit hours. (W)

**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. 3 credit hours. (W)

**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. 3 credit hours. (W)

**FLMC 2331 Computers in Video Production II**

Applications of computers to production. Vector and raster graphics; rendering techniques; the design and production of

three-dimensional materials; and the selection of hardware, software, and peripherals for the configuration of a studio. Lab required. Prerequisite: FLMC 1331. 3 credit hours. (W)

**FLMC 2379 Digital Video Portfolio**

*Formerly FLMC 1392 – ST: Digital Video Portfolio*

This class explores all aspects of independent digital video production. Students will produce a semester project from concept to completion utilizing techniques learned in class. Final projects will be submitted to film/video festivals, used as demo reels, and portfolio. Prerequisite: Consent of instructor or program coordinator. 3 credit hours. (W)

**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.

**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: FREN 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, Moliere, 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, GEOL 1401 EARTH SCIENCE 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**

The earth and its inhabitants as revealed in rocks and fossils. Brief survey of the plant and animal kingdoms, elementary principles of stratigraphy, and a systematic study of the development of the earth from its origin as a planet to the present. Lab required. 4 credit hours.

### **GEOL 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.

### **GEOL 2470 Archaeology Science**

This course emphasizes skills in interdisciplinary sciences and instructs the student in how to apply methods of critical thinking when evaluating the kinds of information science tells us about our past. It also gives a broad appreciation for the scientific method and the nature of scientific inquiry, and is enhanced by the inclusion of a laboratory. 4 credit hours.

*(W) Indicates a Workforce Education (WECM) course.*

**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 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 GERM 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: Students transferring a government course from out-of-state must enroll in this course to complete the Texas legislative requirement.*

**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 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.

**GRPH 1325 Digital Imaging I**

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 1307 or 1321 or consent of instructor. 3 credit hours. (W)

**GRPH 1354 Electronic Publishing II**

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. (W)

**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. See department for prerequisite(s). 3 credit hours.

**GRPH 1380 Cooperative Education – Desktop Publishing Equipment Operator**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

## **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. (W)

## **H**

### **HAMG 1311 Sanitation And Safety**

*Formerly HAMG 1211*

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. 3 credit hours. (W)

### **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. (W)

### **HAMG 1321 Introduction to Hospitality Industry**

Introduction to the elements of the hospitality industry. 3 credit hours. (W)

### **HAMG 1324 Hospitality Human Resources Management**

A study of the principles and procedures of managing people in the hospitality workplace. 3 credit hours. (W)

### **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. (W)

### **HAMG 1380 Cooperative Education – Hospitality Administration and Management**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

### **HAMG 2301 Principles of Food and Beverage Operations**

An introduction to the principles of food, beverage, and labor controls with an overview of the hospitality industry from procurement to marketing. Examination of cost components

including forecasting, menu planning and pricing, logistical support, production, purchasing, and quality assurance. Lab required. 3 credit hours. (W)

*NOTE: Culinary lab classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds), reaching, bending, and working around open flames and with cleaning chemicals.*

### **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. (W)

### **HAMG 2307 Hospitality Marketing and Sales**

Identification of the core principles of marketing and their impact on the hospitality industry. 3 credit hours. (W)

### **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. (W)

### **HAMG 2337 Hospitality Facilities Management**

Identification of building systems, facilities management, security, and safety. 3 credit hours. (W)

### **HAMG 2581 Cooperative Education – Hospitality Administration and Management**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 5 credit hours. (W)

### **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.

*(W) Indicates a Workforce Education (WECM) course.*

**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, medieval history, the Commercial Revolution, Renaissance, and the early European empire. 3 credit hours.

**HIST 2312 Western Civilization II**

Western Europe from post-Reformation to the present, including the Age of evolution, 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 2371 History of Women in America**

This course will cover the history of women in the United States from the colonial period to the present day. Recurring themes include the social, political and economic contributions and obstacles in women's lives, taking into account differences in race and class. The goals of the course are to introduce the student to the major social, economic, and political events and themes in the U.S. women's history, to examine the importance of perspective in the study of history, and to use primary sources to develop critical thinking, analytic writing, and speaking skills. 3 credit hours.

**HIST 2372 Introduction to America and the World in the Twentieth Century**

Survey of U.S. foreign policy during the twentieth century; emphasis on the impact and consequences of America's relations with nations and peoples in various regions of the world, including the Middle East, Asia, Latin America, Eastern Europe, and Africa. 3 credit hours.

**HIST 2373 Survey of the History of American Religion**

The Survey of the History of American Religion addressed major themes in U.S. History through the lens of religion. The course traces the genesis of religious movements from around the world and examines how these movements, having made their way to North America, have influenced U.S. social and political development. 3 credit hours.

**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 2300 Pharmacology for Health Professions**

A study of drug classifications, actions, therapeutic uses, adverse effects, routes of administration, and calculation of dosages. 3 credit hours. (W)

**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. (W)

**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. 3 credit hours. (W)

**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. 3 credit hours. (W)

**HRPO 2301 Human Resources Management**

Behavioral and legal approaches to the management of human resources in organizations. 3 credit hours. 3 credit hours. (W)

**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. (W)

**HUMA 1301 Introduction to the Humanities**

Introduction to the Humanities focuses on the study and appreciation of representative examples of visual and performing arts, literature, music and religion of various world cultures. The exploration of interrelationships of the arts and their philosophies emphasizes the nature of humankind and the need to create. 3 credit hours.

**HUMA 1302 Cultural Diversity**

Evaluation of the cultural contributions of selected non-western or minority cultures. 3 credit hours.

### **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. (W)

### **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. (W)

### **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. See department for prerequisite(s). 3 credit hours. (W)

### **IMED 1305 Multimedia Courseware Development I**

Instruction in courseware development. Topics include interactivity, branching, navigation, evaluation techniques and interface/information design using industry standard authoring software. See department for prerequisite(s). 3 credit hours. (W)

### **IMED 1316 Web Page Design I**

Instruction in web page design and related graphic design issues including mark-up languages, web sites and browsers, Internet access software, and interactive topics. See department for prerequisite(s). 3 credit hours. (W)

### **IMED 1341 2-D Interface Design – Web Graphics**

Skills development in the interface design process including selecting interfaces that are meaningful to users and relative to a project's content and delivery system. Emphasis on aesthetic issues such as iconography, screen composition, colors, and typography. Prerequisites: COSC 1300, IMED 1301 and 1316; or consent of instructor. 3 credit hours. (W)

### **IMED 1343 Digital Sound**

Instruction in digitizing sound and incorporating it into multimedia or web titles for various delivery systems. Emphasis on compression issues, sampling, synchronizing, and resource management. 3 credit hours. (W)

### **IMED 1345 Interactive Multimedia I**

Exploration of the use of graphics and sound to create interactive multimedia animations using industry standard authoring software. Prerequisites: COSC 1300 or instructor consent. 3 credit hours. (W)

### **IMED 1351 Digital Video**

Skill development in producing and editing video and sound for multimedia or web productions. Emphasis on the capture, editing, and outputting of video using a desktop digital video workstation. See department for prerequisite(s). 3 credit hours. (W)

### **IMED 2301 Instructional Design**

An in-depth study of the instructional design process based on learning theories, including evaluation of models and design examples. See department for prerequisite(s). 3 credit hours. (W)

### **IMED 2305 Multimedia Authoring II**

In-depth coverage of programming/scripting using an authoring system with emphasis on advanced development of courseware products. See department for prerequisite(s). 3 credit hours. (W)

### **IMED 2309 Internet Commerce**

An overview of the Internet as a marketing and sales tool with emphasis on developing a prototype for electronic commerce. Topics include database technology, creating web sites in order to collect information, performing on-line transactions, and generating dynamic content. Prerequisite/corequisite: IMED 1316 or consent of instructor. 3 credit hours. (W)

### **IMED 2313 Project Analysis and Design**

Introduction to the planning process for multimedia or web 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. See department for prerequisite(s). (W)

### **IMED 2315 Web Page Design II**

A study of mark-up language advanced layout techniques for creating web pages. Emphasis on identifying the target audience and producing web sites according to accessibility standards, cultural appearance, and legal issues. See department for prerequisite(s). 3 credit hours. (W)

### **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,

*(W) Indicates a Workforce Education (WECM) course.*

CD-ROM, and the Internet. Exploration of new and emerging compression and video streaming technologies. Prerequisite: IMED 1351. 3 credit hours. (W)

### **IMED 2345 Interactive Multimedia II**

Instruction in the use of scripting language to create interactive multimedia projects. Topics include building a user interface, writing script, testing, and debugging. 3 credit hours. (W)

### **IMED 2349 Internet Communications**

Advanced seminar in web server design and maintenance. Topics include scripting, web site planning, testing, security, production, and marketing. Lab required. See department for prerequisite(s). 3 credit hours. (W)

### **INDS 1301 Basic Elements Of Design**

A study of basic design concepts with projects in shape, line, value, texture, pattern, spatial illusion, and form. Lab required. Prerequisite: Interior Design major. 3 credit hours. (W)

### **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. (W)

### **INDS 1315 Materials, Methods, and Estimating**

A study of materials, methods of construction and installation, and estimating for interior design applications. Prerequisite: INDS 1311 or consent of program coordinator. Lab required. 3 credit hours. (W)

### **INDS 1319 Technical Draw For Interior Designers**

An introduction to reading and preparing technical construction drawings for interior design, including plans, elevations, details, schedules, dimensions and lettering. Both manual and AutoCAD plans will be generated. Lab required. Prerequisite: DFTG 1309. 3 credit hours. (W)

### **INDS 1341 Color Theory And Applications**

A study of color theory and its applications to interior design. Actual interior design will be given that will involve applying various color systems, with emphasis on Munsell. The student will learn mixing techniques to gain desired hue; value and chroma (intensities) for solving design color schemes. Color psychology and phenomena will be investigated. The students will be introduced to elements and principles of design and will learn to achieve balance, rhythm, emphases, harmony, and variety through the use of color. Additive and subtractive color mixing, and relationship of light will be examined. Lab required. 3 credit hours. (W)

### **INDS 1345 Commercial Design I**

A study of design principles applied to furniture layout and space planning for commercial interiors. Lab required. Prerequisite: INDS 1315, 1349, and DFTG 1309. 3 credit hours. (W)

### **INDS 1349 Fundamentals of Space Planning**

The study of residential and light commercial spaces, including programming, codes, standards, space planning, drawings, and presentations. Lab required. Prerequisite: INDS 1311 or consent of program coordinator. 3 credit hours. (W)

### **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. (W)

### **INDS 1352 History 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. (W)

### **INDS 1380 Cooperative Education – Interior Design**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

### **INDS 2307 Textiles for Interior Design**

The study of interior design textiles including characteristics, care, codes, and applications. Prerequisites: DFTG 1309, INDS 1301, and 1341. 3 credit hours. (W)

### **INDS 2313 Residential Design I**

The study of residential spaces, including the identification of client needs, programming, standards, space planning, drawings, and presentations. Lab required. Prerequisites: DFTG 1309, INDS 1301, and 1341. 3 credit hours. (W)

### **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. (W)

### **INDS 2321 Presentation Drawing**

An introduction to two- and three-dimensional presentations, including drawings with one- and two-point perspectives, plans, and elevations. Lab required. Prerequisites: DFTG 1309, INDS 1301, and 1341. 3 credit hours. (W)

(W) Indicates a Workforce Education (WECM) course.

### **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. Prerequisites: INDS 1311 and 1349. 3 credit hours. (W)

### **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. Prerequisites: INDS 1345 and 2330. 3 credit hours. (W)

### **INDS 2335 Residential Design II**

A comprehensive study of complex residential interior design problems, including advanced space planning, specifications, budgets, and presentation renderings. Lab required. Prerequisites: DFTG 2319, INDS 1319, 2313, and 2321. 3 credit hours. (W)

### **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. (W)

### **INEW 2301 Macro for Applications – VBA**

A study of macros used for applications. Topics include analysis of the need for macros in various applications, macro design considerations, and macro coding and implementation. 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. Prerequisites: ITSE 1331 and 1307. 3 credit hours. (W)

### **INEW 2330 Comprehensive Software Project I: Planning and Design**

Student 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. Prerequisite: Consent of instructor. 3 credit hours. (W)

### **INEW 2338 Advanced Java Programming**

A continuation of advanced Java programming techniques such as servlets, and advanced graphical functions. Prerequisite: ITSE 2317. 3 credit hours. (W)

### **INEW 2340 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. Prerequisites: COSC 1437, 2320, or 2420. 3 credit hours. (W)

### **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. (W)

### **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. (W)

### **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, wiring closets, management devices, selection, and installation of network devices, protocols, and subnetting. Lab required. 3 credit hours. (W)

### **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. Lab required. Prerequisite: ITCC 1302. 3 credit hours. (W)

*(W) Indicates a Workforce Education (WECM) course.*



**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 LANs. Configure routers for IPX protocol, filtering traffic using Access lists, configuring and managing VLANs and identifying and resolving network congestion problems. Lab required. Prerequisite: ITCC 1306. 3 credit hours. (W)

**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. (W)

**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. Topics include designing scalable internetworks, managing traffic, configuring OSPF in single and multiple areas, configuring EIGRP, and configuring and using interior and border gateway routing protocols. Lab required. Prerequisite: CCNA certified or completion of Academy CCNA program. 4 credit hours. (W)

**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 via-asynchronous modem, ISDN, X.25, and frame relay architectures and associated protocols. Lab required. Prerequisite: ITCC 2432. 4 credit hours. (W)

**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. (W)

**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. (W)

**ITMC 1301 Microsoft Windows Network and Operating System Essentials**

*Replaces ITNW 1325*

An introduction to Microsoft Windows network operating systems and to the fundamentals of networking technologies that they support. Topics include the OSI reference model, network protocols, transmission media, and networking hardware and software. Lab required. 3 credit hours. (W)

**ITMC 1371 Installing, Configuring, and Administering Microsoft Windows XP Professional**

The focus of this course is on implementing and supporting the Windows XP Professional operating system to function as a workstation in a peer-to-peer environment and to function as a client in a client server local area network environment using Windows XP Professional as a client on a Windows server network. Lab required. Prerequisite: ITMC 1301. 3 credit hours. (W)

**ITMC 1441 Implementing Microsoft Windows Professional and Server**

*Replaces ITMC 1419*

In-depth coverage of the knowledge and skills necessary to install and configure Microsoft Windows on stand-alone computers and on client computers that are part of a workgroup or domain, and the skills and knowledge necessary to install and configure Windows Server to create file, print, and servers. Lab required. Prerequisite: ITMC 1301. 4 credit hours. (W)

**ITMC 1442 Implementing a Microsoft Windows Network Infrastructure**

Skills development in installing, configuring, managing, and supporting a network infrastructure that uses the Microsoft Windows server family of products. Lab required. Prerequisite: ITMC 1441 or consent of instructor. 4 credit hours. (W)

**ITMC 1443 Implementing and Administering Microsoft Directory Services**

Provides students with the knowledge and skills necessary to install, configure and administer Microsoft Windows Active Directory service. Focuses on implementing Group Policy and understanding the Group Policy tasks required to centrally manage users and computers. Lab required. Prerequisite: ITMC 1441. 4 credit hours. (W)

**ITMC 1475 Managing a Microsoft Windows Network Environment**

The focus of this course is on covering the skills needed to administer, support, and troubleshoot information systems that incorporate Microsoft Windows in an enterprise network. Lab required. Prerequisite: ITMC 1441. 4 credit hours. (W)

**ITMC 1476 Installing and Administering Microsoft Windows 2003 Server**

An introduction to Microsoft Windows 2003 Server operating system in a single domain environment. Topics include basic installation, configuration tasks, and day-to-day administration tasks in a Windows 2003-based network. Lab required. Prerequisite: ITMC 1301 or consent of instructor. 4 credit hours. (W)

### **ITMC 2403 Administering a Microsoft SQL Server**

#### **Database**

In-depth coverage of the knowledge and skills required to install, configure, administer, and troubleshoot the client-server database management system of Microsoft SQL Server databases. Lab required. Prerequisite: ITMC 1441. 4 credit hours. (W)

### **ITMC 2404 Implementing and Managing Microsoft Exchange**

In-depth coverage of the knowledge and skills required to install and administer Microsoft Exchange. Lab required. Prerequisite: ITMC 1441 or consent of instructor. 4 credit hours. (W)

### **ITMC 2431 Designing a Microsoft Windows Directory Services Infrastructure**

Advanced concepts in the knowledge and skills necessary to design a Microsoft Windows directory services infrastructure. Strategies are presented to assist the student in identifying the information technology needs of the organization and to designing the Active Directory structure that meets those needs. Lab required. Prerequisite: ITMC 1443 or consent of instructor. 4 credit hours. (W)

### **ITMC 2432 Designing a Microsoft Windows Networking Services Infrastructure**

Provides experienced support professionals with the information and skills to create a networking services infrastructure design that supports the required network applications. Lab required. Prerequisite: ITMC 1443. 4 credit hours. (W)

### **ITMC 2433 Designing a Secure Microsoft Windows Network**

Provides students with the knowledge and skills necessary to design a security framework for small, medium, and enterprise networks by using Microsoft Windows networking technologies. Lab required. Prerequisites: ITMC 1443 or consent of instructor. 4 credit hours. (W)

### **ITNW 1380 Cooperative Education – Business Systems Networking and Telecommunications**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

### **ITNW 1492 Special Topics in Business Systems Networking and Telecommunications**

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. This class may be repeated for credit. Lab required. 4 credit hours. (W)

### **ITNW 2305 Network Administration**

Topics include network components, user accounts and groups, network file systems, file system security, and network printing. Preparation to effectively manage a Novell NetWare network. Lab required. Prerequisite: ITMC 1301. 3 credit hours. (W)

### **ITNW 2373 Linux Operating System**

The focus of this course is on implementing and supporting the Redhat Linux operating system to function as a workstation in a peer-to-peer environment, to function as a client in a client server local area network environment and to function as a server in a client server network. This course will help the student prepare for the Redhat Certified Systems Engineer Exam. Lab required. Prerequisite: ITNW 1301 or consent of instructor. 3 credit hours. (W)

### **ITNW 2374 Linux Security**

The focus of this course is on advanced topics concerning management and advanced security features of systems incorporating Redhat Linux operating system as a server in a networked environment. Areas covered will include Theory of operation, base systems, shells and commands, system services, applications, and troubleshooting. This course will help the student prepare for the Redhat Certified Systems Engineer certification. Lab required. Prerequisite: ITNW 1301 or consent of instructor. 3 credit hours. (W)

### **ITNW 2417 Network Security**

Instruction in security for network hardware, software, and data including physical security, backup procedures, firewalls, encryption, and protection from viruses. Lab required. Prerequisite: ITMC 1441 or consent of instructor. 4 credit hours. (W)

### **ITSC 1307 UNIX Operating System I**

*Formerly ITSW 1306*

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. (W)

### **ITSC 1309 Integrated Software Applications I – MS Office**

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: POFT 1329 or a keyboarding class taken in high school. 3 credit hours. (W)

*(W) Indicates a Workforce Education (WECM) course.*

### **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. (W)

### **ITSC 1327 Multi-user Operating Systems**

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. (W)

### **ITSC 1364 Practicum – Computer and Information Sciences, General**

A basic or intermediate type of non-health professions work-based instruction that provides basic career exploration or helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. The emphasis is on practical work experience. Indirect supervision is provided by the work supervisor. A practicum may be a paid or unpaid learning experience. Prerequisite: Must have department approval. 3 credit hours. (W)

### **ITSC 1380 Cooperative Education – Computer and Information Sciences, General**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

### **ITSC 2380 Cooperative Education – Computer and Information Sciences, General**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

### **ITSE 1311 Web Page Programming**

Instruction in Internet Web page programming and related graphic design issues including mark-up languages, Web sites, Internet access software, and interactive topics. May include use of

HTML, CGI, JAVA, JAVASCRIPT, or ASP. Prerequisite: COSC 1300 and IMED 1316 or consent of instructor. 3 credit hours. (W)

### **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. Learning objectives include an understanding of form design using basic controls, scope of variables and constants, data types, evaluation of expressions, decision-making constructs, loops, procedures and functions, and arrays. Prerequisite: COSC 1300 or equivalent computer literacy competencies. 3 credit hours. (W)

### **ITSE 1344 Mastering Microsoft Visual Basic Development [.NET]**

Skill development in the creation of database applications using Component Object Model (COM). Topics include a review of BASIC language syntax; flat file data structures and access methods; ActiveX controls such as TreeView, ListView, and ImageList; basic database design and application interface using DAO architecture; and an introduction to OOP using ADO database architecture including Data Environment and other ActiveX components. Prerequisites: COSC 1320, 1420, ITSE 1331, ITSW 1307, or competency. 3 credit hours. (W)

### **ITSE 1380 Cooperative Education – Computer Programming**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

### **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. (W)

#### **ActiveX, 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 ActiveX component development; and an introduction to Visual InterDev. Prerequisites: ITSE 1331 or consent of instructor.

### **ITSE 2301 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. Prerequisites: COSC 2320 or 2420. 3 credit hours. (W)

### **ITSE 2302 Intermediate Web Programming**

Intermediate applications for web authoring. Topics may include server side includes (SSI), Perl, HTML, Java, Javascript, and/or ASP. Prerequisites: IMED 1316 and 2315 or consent of instructor. 3 credit hours. (W)

### **ITSE 2309 Database Programming – SQL**

Application development using database programming techniques emphasizing database structures, modeling, and database access. Prerequisite: Introductory computer programming course and knowledge of MS Access. 3 credit hours. (W)

### **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. (W)

### **ITSE 2333 Implementing a Database on Microsoft SQL Server**

Skills development in the implementation of a database solution using Microsoft SQL Server client/server database management system version 7.0. 3 credit hours. (W)

### **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: ITSE 2301. 3 credit hours. (W)

### **ITSE 2344 Oracle Database Structure and Data Warehousing**

A practical application course for modeling and designing an Oracle data warehouse using case studies. Topics include data modeling, data analysis and synthesis, multidimensional queries, warehouse architecture/design, data marts, data mining, and OLAP services. 3 credit hours. (W)

### **ITSE 2347 Advanced Database**

#### **Programming: SQL**

Application development using complex database programming techniques emphasizing multiple interrelated files, menu design, security implementation, and multiple access. Prerequisite: ITSE 2309. 3 credit hours. (W)

### **ITSE 2349 Advanced Visual Basic Programming [.NET]**

Further applications of programming techniques using Visual BASIC. Topics include file access methods, data structures, modular programming, program testing, and documentation. Emphasis on OOP with the ADO Programming Object Model. Topics include Class Modules, Multi-tiered Database Applications, ActiveX Controls, and Code Components (COM). Other advance topics include use of Windows API, Internet Applications, Optimizing Techniques, Help Files, and Application Distribution. Prerequisite: ITSE 1344. 3 credit hours. (W)

### **ITSE 2354 Advanced Oracle SQL and PL/SQL**

A continuation of Oracle SQL and PL/SQL. Topics include hierarchical queries, set based queries, correlated subqueries, scripting, and scripting generation. Cursors, exception handlers, record/table structures, procedures/functions, packages, and object types will also be studied. 3 credit hours. (W)

### **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). Prerequisite: ITSE 2301 and 2309. 3 credit hours. (W)

### **ITSE 2374 Computer Programming – C#**

Application of C# programming techniques in the Microsoft windows environment. Includes creating both stand-alone Microsoft windows applications and web-oriented applications. Prerequisites: COSC 2320 or 2420. 3 credit hours. (W)

### **ITSE 2380 Cooperative Education – Computer Programming**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. Prerequisite: ITSE 1380 or consent of program coordinator. 3 credit hours. (W)

*(W) Indicates a Workforce Education (WECM) course.*

**ITSW 1304 Introduction to Spreadsheets – Excel**

Instruction in the concepts, procedures, and importance of electronic spreadsheets. Prerequisite: COSC 1300 or ITCS 1321. 3 credit hours. (W)

**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. (W)

**ITSW 1380 Cooperative Education – Data Processing Technology/Technician**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

**ITSW 2380 Cooperative Education – Data Processing Technology/Technician**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. Prerequisite: ITSE 1380 or consent of program coordinator. 3 credit hours. (W)

**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. (W)

**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. (W)

**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. (W)

**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. (W)

**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. (W)

**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. (W)

### **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. (W)

### **LGLA 1380 Cooperative Education – Paralegal/Legal Assistant**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

### **LGLA 2239 Certified Legal Assistant Review**

This course provides a review of the mandatory and optional topics covered in the Certified Legal Assistant Examination administered by the National Association of Legal Assistants. 2 credit hours. (W)

### **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. (W)

### **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. (W)

### **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. (W)

### **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. (W)

### **LOTT 1443 Geometrical Optics I**

Theory of light as a geometric ray. Applications of the laws of reflection and refraction from the mathematical, graphical, and experimental aspects. Lab required. Corequisite: MATH 1314. 4 credit hours. (W)

### **LOTT 1444 Fundamentals of Laser and Laser Safety**

An introduction to the general nomenclature of the laser including laser safety, light and its properties, lasing action, optical cavities, modes of oscillation, and laser characteristics and classifications. Lab required. Prerequisite: LOTT 1443. 4 credit hours. (W)

### **LOTT 2436 Wave Optics**

Principles and theory of light and its wave nature including origin of light, spectral characteristics of light, radiometry, photometry, reflection, refraction, propagation of light, interference, diffraction, and polarization. Lab required. Prerequisite: LOTT 1443. 4 credit hours. (W)

### **LOTT 2440 Microwave Fundamentals**

Introduction to microwave theory and applications, transmitter and receiver. Lab required. Prerequisite: CETT 1409. 4 credit hours. (W)

### **LOTT 2449 Photonics**

A study of wave and quantum aspects of optical radiation and various applications of coherent and non-coherent photonic devices. Emphasis on fiber optics, opto-electronic devices, and photo devices as they apply to industrial controls, data transmission, and telecommunications. Lab required. Prerequisite: LOTT 1443 and 2436. 4 credit hours. (W)

## **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. Prerequisite: MATH 0305 or equivalent. 1 credit hour.

*NOTE: May not be used to satisfy the requirements of an associate degree.*

### **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. 3 credit hours.

*NOTE: May not be used to satisfy the requirements of an associate degree.*

### **MATH 0302 Pre-algebra**

Study of mathematical operations with signed numbers, algebraic expressions, and polynomials; involves solving linear equations and geometric applications. Lab included. Prerequisite: MATH 0300 or equivalent. 3 credit hours.

*NOTE: May not be used to satisfy the requirements of an associate degree.*

*(W) Indicates a Workforce Education (WECM) course.*

**MATH 0305 Beginning Algebra**

Study of rational numbers, expressions, linear and quadratic equations, absolute value equations, polynomials, factoring, rational expressions, rational equations, exponents and graphing linear equations. Lab included. Prerequisite: MATH 0302 or equivalent. 3 credit hours.

*NOTE: May not be used to satisfy the requirements of an associate degree.*

**MATH 0310 Intermediate Algebra**

Study of exponents, functions, radical expressions and equations, quadratic equations and functions, linear and quadratic inequalities, systems of equations and inequalities, and graphing linear equations and inequalities. Lab included. Prerequisite: MATH 0305 or equivalent. 3 credit hours.

*NOTE: May not be used to satisfy the requirements of an associate degree.*

**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. 3 credit hours.

*NOTE: May not be used to satisfy the requirements of an associate degree.*

**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. Prerequisite: high school Algebra II or MATH 0310 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. Prerequisite: high school Algebra II and one year of high school geometry. 3 credit hours.

**MATH 1324 Pre-Calculus for Business and Economics**

Not for math majors. Equations, inequalities, functions, matrices, linear programming including the simplex method, probability, and statistics. Graphing calculator required. Lab required. Prerequisite: high school Algebra II or MATH 0310. 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 1314 or 1324. 3 credit hours.

**MATH 1332 Contemporary Mathematics**

For liberal arts and technical majors other than engineering. Involves statistics, counting methods, probability, scheduling, circuits, and other topics in management science and consumer mathematics. Prerequisite: Math assessment or MATH 0305. 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: high school Algebra II or MATH 0310. 3 credit hours.

**MATH 1350 Fundamental 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 and includes the foundational math concepts taught at the middle grade level. Prerequisite: MATH 1314 or equivalent. 3 credit hours.

**MATH 1351 Fundamental 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 and includes the foundational math concepts taught at the middle grade level. 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. Lab required. 3 credit hours.

**MATH 1376 Calculus for Business and Economics II**

Continuation of MATH 1325. In this course, application 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. 3 credit hours.

### **MATH 1414 College Algebra**

This course includes a review of basic algebra and a study of relations and functions that address linear, absolute value, polynomial, rational, exponential, logarithmic, inverse, and composition of functions. The theory of equations, complex numbers, systems of equations, matrices, sequences, and the binomial theorem are also studied. Prerequisite: high school Algebra II or MATH 0310 and one year of high school geometry or MATH 0115. 4 credit hours.

### **MATH 2305 Discrete Mathematics**

Introduction to mathematical logic and algorithms. Graph theory, combinatorics, and applications to computer science. Lab required. Prerequisite: MATH 1376 or 2413. 3 credit hours.

### **MATH 2318 Linear Algebra**

Linear equations, matrices, real vector spaces, linear transformations, and eigenvectors. Graphing calculator required. Prerequisite: MATH 2414. 3 credit hours.

### **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. 3 credit hours.

### **MATH 2373 Matrices, Vectors, and Linear Programming**

Not for science majors. A study of matrices, vectors, determinants, inverses, system of linear equations, and linear programming with applications. Prerequisite: MATH 1314. 3 credit hours.

### **MATH 2412 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. Graphing calculator required. Lab required. Prerequisite: MATH 1316. 4 credit hours.

### **MATH 2413 Calculus I**

Limits, continuity, derivatives, applications of the derivative, and definite and indefinite integrals. Graphing calculator required. Lab included. Prerequisite: MATH 2412. 4 credit hours.

### **MATH 2414 Calculus II**

Applications of integration, techniques of integration, infinite series, differential equations, and vectors. Graphing calculator required. Lab included. Prerequisite: MATH 2413. 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. 4 credit hours.

### **MATH 2417 Accelerated Calculus I\***

A study of limits, continuity, the derivative, applications of the derivatives, the definite and indefinite integral and their applications, techniques of integration, derivatives and integrals of trigonometric, logarithmic, hyperbolic, and exponential functions, separable differential equations and their applications. Graphing calculator required. Lab required. Prerequisite: MATH 2412. 4 credit hours.

*\* This course is included in the Center for Advanced Study in Mathematics and Natural Sciences (CASMNS) program. Please see page 68 for further information.*

### **MATH 2419 Accelerated Calculus II\***

A study of infinite series, parametric equations and polar functions, vectors in two and three dimensions, vector-valued functions, functions of several variables, cylindrical and spherical coordinates, partial derivatives, multiple integrals and their applications and the calculus of vector fields. Graphing calculator required. Lab required. Prerequisite: MATH 2417. 4 credit hours.

*\* This course is included in the Center for Advanced Study in Mathematics and Natural Sciences (CASMNS) program. Please see page 68 for further information.*

### **MRKG 1301 Customer Relations**

*Replaces MRKG 1391*

Topics address general principles of customer service including skills, knowledge, attitudes, and behaviors pertinent to the professional development of the student. 3 credit hours. (W)

### **MRKG 1302 Principles of Retailing**

*Formerly BMGT 1302*

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. (W)

### **MRKG 1311 Principles of Marketing**

Introduction to the 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. (W)

(W) Indicates a Workforce Education (WECM) course.



**MRKG 1380 Cooperative Education Business Marketing and Marketing Management**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

**MRKG 2333 Principles of Selling**

*Formerly BMGT 1333*

Overview of the selling process. Identification of the elements of the communication process between buyers and sellers and examination of the legal and ethical issues of organizations which affect salespeople. 3 credit hours. (W)

**MRKG 2348 Marketing Research and Strategies**

*Formerly BMGT 1348*

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. (W)

**MRKG 2349 Advertising and Sales Promotion**

*Formerly BMGT 1349*

Introduction to the advertising principles, practices, and multi-media of persuasive communication including buyer behavior, budgeting, and regulatory constraints. 3 credit hours. (W)

**MRKG 2381 Cooperative Education Business Marketing and Marketing Management**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

**MRMT 1267 Practicum – Medical Transcription**

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Contact the Medical Transcription Coordinator and the Cooperative Work Experience Office. Prerequisite: POFT 1329 or a keyboarding class taken in high school. 2 credit hours. (W)

**MRMT 1282 Cooperative Education – Medical Transcription**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. Prerequisite: POFT 1329 or a keyboarding class taken in high school. 2 credit hours. (W)

**MUAP 1101-1191 Secondary Applied Music**

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 hours of MUSI, MUSB, or MUSC courses and 1 credit hour of a MUEN course for the semester. May be repeated for credit. Prerequisite: Audition. Contact Music department for permission prior to registering. 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 Songwriting

MUAP 1190 Arranging

MUAP 1191 Conducting

### **MUAP 1201-1291 Principal Applied Music**

For full-time 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 4 music credits of MUSI, MUSB, or MUSC courses and at least 1 credit hour of a MUEN course for the semester. May be repeated for credit. Prerequisite: Audition. Contact Music department for permission prior to registering. 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 Songwriting

MUAP 1290 Arranging

MUAP 1291 Conducting

### **MUEN 1121 Jazz Lab Band**

*Formerly MUSP 1140*

Participation in a large band concentrating on jazz and 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) and include an annual out-of-state festival performance. May be repeated for credit. Prerequisite: Audition. 1 credit hour.

### **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. Meets off campus; contact the Music department for location. 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.

### **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 1135 Expressions Combo**

*Formerly MUSP 1142*

Expressions Combo is a small ensemble (4-6) musicians who serve as the rhythm section for the Expressions Vocal Jazz ensemble. In addition to rehearsing and performing with Expressions, the combo also prepares its own arrangements and performs as an independent ensemble. Typical repertoire includes bebop, Latin, and fusion standards. 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 1140 Jazz Combo**

*Formerly MUSP 1150*

Participation in a small jazz ensemble concentrating on jazz and commercial music performance styles. Ensemble consists of 4-9 instrumental/vocal members. Repertoire includes 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) and include an annual out-of-state festival performance or tour. Prerequisite: Audition or consent of instructor. 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 1142 Expressions Vocal Jazz Ensemble**

*Formerly MUSP 2107*

This group works on a wide variety of jazz styles throughout the year. They also work in conjunction with a jazz combo allowing them to experience solo jazz singing. This select ensemble of 10-16 singers has several performances each semester. This group may have an annual tour. Prerequisite: Audition. 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 1305 Survey of The 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. (W)

**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. (W)

**MUSB 2380 Cooperative Education – Music Business Management and Merchandising**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

**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 experiences. 2 credit hours. (W)

**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. (W)

**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. (W)

**MUSC 1327 Audio Engineering I**

Overview of the recording studio. 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. Taught in express format. 3 credit hours. (W)

**MUSC 1329 Computer Music Notation I**

Survey of music notation software and applications with skill development in computer music notation. Prerequisite: MUSI 1301. 3 credit hours. (W)

**MUSC 1331 MIDI 1**

History and evolution of Musical Instrument Digital Interface (MIDI) systems and applications, the MIDI language, and applications in the studio environment using software-based sequencing programs. 3 credit hours. (W)

**MUSC 1333 Synthesis I**

Sound synthesis including additive, subtractive, and AM and FM synthesizers. 3 credit hours. (W)

### **MUSC 2314 Improvisation Theory I**

A study of the chordal structures of jazz, rock, country, and fusion with emphasis on extemporaneous performance. Chord/scale relationships, common “licks” and the jazz “language” will be covered. 3 credit hours. (W)

### **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. Class covers popular nomenclature/theory, discovering music sources, common orchestration, writing for rhythm section and manuscript for individual parts. 3 credit hours. (W)

### **MUSC 2343 Audio Engineering Electronics Troubleshooting**

Concepts in troubleshooting 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. (W)

### **MUSC 2345 Synthesis II**

Study of sound synthesis – including hybrid synthesis and digital sampling. Lab required. Prerequisite: MUSC 1333. 3 credit hours. (W)

### **MUSC 2351 Audio For Video**

Advanced audio for video production. Topics include synchronization, time code, automated mixdown, audio post production for video, and nonlinear and traditional editing techniques. 3 credit hours. (W)

### **MUSC 2355 MIDI 2**

Sequencer operation, synchronization in the interaction of multiple recording and playback systems. 3 credit hours. (W)

### **MUSC 2405 Sound Reinforcement Systems Technology**

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. (W)

### **MUSC 2427 Audio Engineering II**

Implementation of the recording process, microphones, audio console, multitrack recorder, and signal processing devices. Prerequisite: MUSC 1327 4 credit hours. (W)

### **MUSC 2447 Audio Engineering III**

Procedures and techniques in recording and manipulating audio. Topics include advanced computer-based console automation, hard disk based digital audio editing, nonlinear digital multitrack recording, and advanced engineering project completions. Taught in express format. Prerequisite: MUSC 2427. 4 credit hours. (W)

### **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. Taught in express format. Prerequisite: MUSC 2447. 4 credit hours. (W)

### **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 staging 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. 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.

*(W) Indicates a Workforce Education (WECM) course.*

**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 1172 or 1181. 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 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. For non-music majors only. Music majors must take MUSI 1307. 3 credit hours.

**MUSI 1307 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 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 the 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**

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 Music 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: 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 2192 Class Guitar III**

Continuation of MUSI 1193. Development of two and three octave scales, intermediate guitar repertoire from Renaissance to 20th century music. This two-hour course covers chapters 16-26 of Solo Guitar Playing, Vol. 1, by Frederick M. Noad. Prerequisite: MUSI 1193. 1 credit hour.

### **MUSI 2193 Class Guitar IV**

Final course in sequence of guitar classes. Culmination of skills including completion of major and melodic minor scales, more difficult guitar repertoire, and competency in sight-reading. This two-hour course covers chapters 1-9 of Solo Guitar Playing, Vol. II, by Frederick M. Noad. 1 credit hour.

### **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.

## **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 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 1106 Walking and Fitness**

Improve cardiovascular fitness, muscle tone, and flexibility through a vigorous walking and conditioning program. 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.

*(W) Indicates a Workforce Education (WECM) course.*

**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 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 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 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.

**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 1133 Introduction to Racquet Sports**

Introduction to the rules, scoring, and fundamental techniques in the following sport: tennis, badminton, racquetball. Participation will help develop muscular and cardiovascular fitness and hand eye coordination. 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**

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**

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; emphasis on riding skills. 1 credit hour.

**PHED 1146 Popular Social Dance**

Practice in a variety of contemporary social dances such as: swing, salsa, tango, traditional ballroom, and country-western. 1 credit hour.

**PHED 1147 Beginning Aerobic Kickboxing/Karate**

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 1148 Introduction to Team Sports**

Develops the basic skills and strategies through the knowledge of the history, rules, and terminology. Students will participate in game situations. Three of the following activities will be elected for instruction: Basketball, Flag Football, Soccer, Softball, or Volleyball. 1 credit hour.

**PHED 1251 Beginning Scuba**

Divided into academic training and confined-water (swimming pool) training. Student is required to furnish personal gear (mask, fins, snorkel, and boots) and wet suit (optional). All other equipment is covered in lab fee. Course prepares student to take open water certification exam for NAUI. Certification is not a course requirement. Lab required. Prerequisite: Instructor consent. 2 credit hours.

**PHED 1252 Advanced Open Water Scuba**

Combines practical diving techniques, CPR/First Aid training, and rescue diver training. Required academic knowledge includes deep diving, underwater navigation, and night (limited visibility) techniques. Two optional (instructor specified) techniques will be required. Rescue diving includes diver rescue and emergency management. Prerequisite: Open water certification (NAUI, PADI or equivalent) and instructor consent. 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: Must meet current American Red Cross requirements for Lifeguard Training. 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 1305 Community Health**

Provides an in-depth look at the basic principles of community and population health. Topics cover all aspects of community and population health such as foundations of community health, population diversity, demography, epidemiology, health through the life span, health promotion, environmental health protection, health organizations, resources and services in the United States. The students will evaluate information that is pertinent to the basic principles of community and population health. 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 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**

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. 1 credit hour.

**PHED 2147 Intermediate Aerobic Kickboxing**

Further increases in physical fitness are obtained through aerobic kickboxing/karate, stretching and body toning, and muscular endurance exercises. Prerequisite: PHED 1147 or consent of instructor. 1 credit hour.

**PHED 2255 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. 2 credit hours.

**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**

Such a course of study examines the place of art in human life by asking questions concerning beauty as a transcendental phenomena and by asking what is the nature or essence of an artistic production (which is spoken about in terms other than utility). Furthermore, the course questions or discusses the work of art itself as a product of creativity, imagination, and most importantly, understanding. 3 credit hours.

**PHTC 1306 Fashion Photography**

An exploration of fashion photography in terms of trends and techniques included in studio and location work. Emphasis on model direction and lighting control. Lab required. Prerequisites: ARTS 2357 and PHTC 1353. 3 credit hours. (W)

**PHTC 1313 History Of Photography**

A historical survey of the technical and aesthetic development of photography. Topics include the beginnings of the medium, inventors, development of photographic equipment, styles of the creative masters, aesthetic themes, and the social impact of photography. Lab required. 3 credit hours. (W)

**PHTC 1325 Photographic Science I**

An examination of the principles and theories governing photography. Emphasis on analysis of problems involving optics, light, chemistry, and math as they pertain to field practices. Processes will be carried out using the view camera/zone system. Lab required. Prerequisite: ARTS 2357. 3 credit hours. (W)

### **PHTC 1328 Photographic Studio Management**

Examination of photographic management, pricing, market analysis, promotion, networking, job acquisition, photographic equipment analysis, and photo lab selection. Lab required. 3 credit hours. (W)

### **PHTC 1341 Color Photography I**

Examination of color theory as it applies to photography. Emphasis on color concepts and the intricacies of seeing and photographing in color. natural rights, justice, education, freedom, and responsibility. Lab required. Prerequisite: ARTS 2356. 3 credit hours. (W)

### **PHTC 1343 Expressive Photography**

A study of formal, professional, and individual uses of photography by applying photographic technology to personalized needs. Emphasis on creative visual thinking and problem solving and the exploration of personal vision. Lab required. Prerequisite: ARTS 2357. 3 credit hours. (W)

### **PHTC 1345 Illustrative Photography I**

Instruction in the technical aspects involved in commercial photography. Topics include lighting equipment, techniques of production photography, reproduction principles, illustrative techniques, and advertising. Lab required. 3 credit hours. (W)

### **PHTC 1347 Landscape Photography**

Skill development in the inspection of the landscape visually and photographically utilizing various camera formats. Topics include exploration of historic, geographical, and cultural locations, and review of landscape photographers. Lab required. Prerequisite: ARTS 2357. 3 credit hours. (W)

### **PHTC 1349 Photo Digital Imaging I**

Instruction in the computer as an electronic darkroom. Topics include color and gray scale images and image conversion and presentation. Lab required. Prerequisite: ARTS 2356. 3 credit hours. (W)

### **PHTC 1351 Photojournalism I**

Presentation of photographic techniques used by photojournalists in newspapers, magazines, and trade publications including news, feature, sports, editorial portraits, and photo essays. Includes a study of layout design and the freelance market. Lab required. Prerequisite: ARTS 2357. 3 credit hours. (W)

### **PHTC 1353 Portraiture I**

A study of the photographic principles applied to portrait lighting, posing, printing, and subject report. Lab required. Prerequisite: ARTS 2357. 3 credit hours. (W)

### **PHTC 1391 Special Topics in Commercial Photography**

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. (W)

### **PHTC 2301 Intermediate Photography**

Study of advanced exposure and printing techniques, archival printing, toning, and printing for maximum print quality. Introduction to a variety of camera formats. Lab required. Prerequisite: ARTS 2357. 3 credit hours. (W)

### **PHTC 2331 Architectural Photography**

Study of the equipment, processes, and procedures necessary for the photography of building exteriors and interiors, dusk/night and night architectural landscapes, and construction progress. Lab required. Prerequisite: ARTS 2357. 3 credit hours. (W)

### **PHTC 2341 Color Photography II**

Skill development in advanced image production. Emphasis on use of specialized color techniques and applications. Lab required. Prerequisite: PHTC 1349. 3 credit hours. (W)

### **PHTC 2349 Photo Digital Imaging II**

Continued skill development in the use of the computer for retouching, copying, photographic restoration, color correction, data importation, composite imaging, and background dropout and replacement. Lab required. Prerequisite: PHTC 1351. 3 credit hours. (W)

### **PHTC 2353 Portraiture II**

A continuation of the study of principles of effective portraiture with specific emphasis on unique presentation and environmental and location studies. Lab required. Prerequisite: PHTC 1353. 3 credit hours. (W)

### **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.

(W) Indicates a Workforce Education (WECM) course.

### **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 students 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 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.

*\* This course is also offered through the Center for Advanced Study in Mathematics and Natural Sciences (CASMNS). Please see page 68 for further information.*

### **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 and MATH 2414. 4 credit hours.

*\* This course is also offered through the Center for Advanced Study in Mathematics and Natural Sciences (CASMNS). Please see page 68 for further information.*

### **POFI 1301 Computer Applications I – WordPerfect**

Overview of computer office 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: POFT 1329 or a keyboarding class taken in high school and computer skills. 3 credit hours. (W)

### **POFI 2301 Word Processing – MS Word**

In-depth coverage of a word processing software application. This course can be repeated for credit as software changes. Prerequisites: POFT 1329 or a keyboarding class taken in high school and computer skills. 3 credit hours. (W)

### **POFI 2331 Desktop Publishing for the Office – MS Word and PowerPoint**

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 and POFT 1329 or a keyboarding class taken in high school. 3 credit hours. (W)

### **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. (W)

### **POFL 1380 Cooperative Education – Legal Administrative Assistant/Secretary**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. Prerequisite: POFT 1329 or a keyboarding class taken in high school. 3 credit hours. (W)

### **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. (W)

**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. (W)

**POFM 1331 Medical Transcription I**

Fundamentals of medical transcription including basic reports such as history and physicals, discharge summaries, consultations, operative reports, other medical reports. Emphasis on development of speed and accuracy. Prerequisite/corequisite: POFI 1301 or 2301 and SRGT 1301. 3 credit hours. (W)

**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. (W)

**POFM 1380 Cooperative Education – Medical  
Administrative Assistant/Secretary**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. Prerequisite: POFT 1329 of a keyboarding class taken in high school. 3 credit hours. (W)

**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. (W)

**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, POFT 1307, and 2203. 3 credit hours. (W)

**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. (W)

**POFT 1307 Proofreading and Editing**

Instruction in proofreading and editing skills necessary to assure accuracy in business documents. Prerequisite/corequisite: POFT 1329 or a keyboarding class taken in high school. 3 credit hours. (W)

**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. Prerequisite/corequisite: POFT 1329 or a keyboarding class taken in high school. 3 credit hours. (W)

**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. (W)

**POFT 1349 Administrative Office Procedures II**

In-depth coverage of office applications with special emphasis on decision making, goal setting, management theories and critical thinking. Prerequisite: POFT 1329 or a keyboarding class taken in high school. 3 credit hours. (W)

**POFT 1380 Cooperative Education –  
Administrative Assistant/Secretarial Science, General**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. Prerequisite: POFT 1329 or a keyboarding class taken in high school. 3 credit hours. (W)

**POFT 2203 Speed and Accuracy Building**

Review, correct, improve, and/or perfect touch-keyboarding techniques for the purpose of increasing speed and improving accuracy. Prerequisite: POFT 1329 or a keyboarding class taken in high school. 2 credit hours. (W)

**POFT 2301 Document Formatting and Skillbuilding**

A continuation of keyboarding skills in document formatting, emphasizing speed and accuracy. Emphasis on proofreading, editing, and following instructions, and keying documents from various copy. Prerequisite: POFT 1329 or a keyboarding class taken in high school. 3 credit hours. (W)

**POFT 2312 Business Correspondence and Communication**

*Formerly POFT 1302*

Development of writing skills to produce effective business documents. Prerequisite: POFT 1329 or a keyboarding class taken in high school. 3 credit hours. (W)

**POFT 2380 Cooperative Education – Administrative Assistant/Secretarial Science, General**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. Prerequisite: POFT 1329 or a keyboarding class taken in high school. 3 credit hours. (W)

**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. (W)

*NOTE: Culinary lab classes require extended periods of time standing in place, lifting heavy weights (up to 60 pounds), reaching, bending, and working around open flames and with cleaning chemicals.*

**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. 3 credit hours.

**PSYC 2302 Applied Psychology**

Application of psychological principles to human relations issues in organizational settings. Emphasis on self-understanding, interpersonal relations, and career development. 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 2371 Death and Dying**

This course will explore the social, emotional, and cognitive processes involved in our understanding and acceptance of death and dying. A cross-cultural perspective of these issues will be presented. Topics discussed include the grief and loss, death coping across the life-span, social and institutional contexts of death, hospice alternatives, funerals and wills, organ donation, and ways to help both dying persons and survivors cope. 3 credit hours.

**PSYC 2372 Abnormal Psychology**

An introduction to the study of abnormal behavior. The course focuses on the causes, symptoms, assessment and treatment of mental disorders, with emphasis on contemporary issues regarding the nature of mental disorders. Prerequisite: PSYC 2301. 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.

**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. (W)

*(W) Indicates a Workforce Education (WECM) course.*

**READ 0300 Developmental Reading I**

Raises the reading level of students through the acquisition of basic vocabulary and comprehension skills. Lab included. Prerequisite: Assessment. 3 credit hours.

*NOTE: May not be used to satisfy the requirements of an associate degree.*

**READ 0305 Developmental Reading II**

Offers additional instruction in developing vocabulary and comprehension skills. Effective study skills are introduced. Lab included. Prerequisite: READ 0300 or assessment. 3 credit hours.

*NOTE: May not be used to satisfy the requirements of an associate degree*

**READ 0310 Developmental Reading III**

Seeks to further improve students' vocabulary, comprehension and study skills. Lab included. Prerequisite: READ 0305 or assessment. 3 credit hours.

*NOTE: May not be used to satisfy the requirements of an associate degree*

**READ 1300 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. (W)

**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. (W)

**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. (W)

**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. (W)

**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. (W)

**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. (W)

**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. (W)

**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. (W)

**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. (W)

**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. (W)

**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. (W)

*(W) Indicates a Workforce Education (WECM) course.*

**RELE 1380 Cooperative Education – Real Estate**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

**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. (W)

**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. (W)

**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. (W)

**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. (W)

**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. (W)

**RELE 2381 Cooperative Education – Real Estate**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

**RNSG 1219 Integrated Nursing Skills I**

*Formerly RNSG 1205*

Study of the concepts and principles essential for demonstrating competence in the performance of basic nursing skills for care of diverse clients across the life span. Topics include knowledge, judgment, skills, and professional values within a legal/ethical framework. Prerequisite: Admission to Nursing Program; corequisites: RNSG 1360 and 1523. 2 credit hours. (W)

**RNSG 1229 Integrated Nursing Skills II**

*Formerly RNSG 1144*

Study of the concepts and principles necessary to perform intermediate or advanced nursing skills for care of diverse clients across the life span. Topics include knowledge, judgment, skills, and professional values within a legal/ethical framework. Prerequisites: RNSG 1205/1219; corequisites: RNSG 2361 and 2404/2504. 2 credit hours. (W)

**RNSG 1266 Practicum – Nursing (R.N. Training)**

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Contact the Cooperative Work Experience Office. 2 credit hours. (W)

**RNSG 1360 Clinical I – Nursing (R. N. Training)**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Admission into the ADN program; corequisites: RNSG 1205/1219 and 1523. 3 credit hours. (W)

**RNSG 1361 Clinical II – Nursing (R. N. Training)**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisites: RNSG 1360 or equivalent; corequisites: RNSG 1144/1229 and 2404/2504. 3 credit hours. (W)

**RNSG 1523 Introduction to Professional Nursing for Integrated Programs**

Introduction to the profession of nursing including the roles of the registered nurse with emphasis on health promotion and primary disease prevention across the life span; essential components of the nursing health assessment; identification of deviations from expected health patterns; the application of a systematic problem-solving process to provide basic nursing care to diverse clients across the life span; and applicable competencies in knowledge, judgment, skills, and professional values within a legal/ethical framework. Prerequisites: Admission into the ADN program; corequisites: RNSG 1205/1219 and 1360. 5 credit hours. (W)

### **RNSG 2207 Transition to Nursing Practice**

Introduction to selected concepts related to the role of the professional 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. Prerequisites: RNSG 1205/1219, 1144/1229, 1360, 1523, 2361, 2462, 2404/2504, and 2414/2514; corequisites: RNSG 2435/2535 and 2463/2565. 2 credit hours. (W)

### **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. (W)

### **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. (W)

### **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. (W)

### **RNSG 2460 Clinical III – Nursing (R. N. Training)**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisites: RNSG 2161/2361 or equivalent; corequisite: RNSG 2414/2514. 4 credit hours. (W)

### **RNSG 2462 Clinical IV – Nursing (R. N. Training)**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: RNSG 2161 or equivalent; corequisite: RNSG 2221 and 2414. 4 credit hours. (W)

### **RNSG 2463 Clinical V – Nursing (R. N. Training)**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: RNSG 2462 or equivalent; corequisite RNSG 2207 and 2436. 4 credit hours. (W)

### **RNSG 2504 Integrated Care of the Client with Common Health Care Needs**

*Formerly RNSG 2404*

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 including, but not limited to, common childhood/adolescent diseases, uncomplicated perinatal care, mental health concepts, perioperative care, frequently occurring adult health problems and health issues related to aging. Emphasis on secondary disease prevention and 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. Prerequisites: RNSG 1523; corequisites: RNSG 1144/1229 and 2361. 5 credit hours. (W)

### **RNSG 2514 Integrated Care of the Client with Complex Health Care Needs**

*Formerly RNSG 2414*

Application of a systematic problem-solving process and critical thinking skills to provide comprehensive nursing care to diverse clients/families across the life span with complex health care needs including, but not limited to, complex childhood/adolescent diseases, complicated perinatal care, acute mental illness, complex perioperative care, serious adult health problems and health issues related to aging. Emphasis on tertiary disease prevention, health maintenance/restoration and collaboration 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. Opportunities to collaborate with members of the multidisciplinary health care team. Prerequisites: RNSG 2504; corequisite: RNSG 2462. 5 credit hours. (W)

### **RNSG 2535 Integrated Client Care Management**

*Formerly RNSG 2435*

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 alterations in defense and protection, endocrine disturbances, neurological conditions, and victims of mass casualty events. Prerequisites: RNSG 1205/1219, 1144/1229, 1360, 1523, 2361, 2462, 2404/2504, and 2414/2514; corequisites: RNSG 2207 and 2463/2565. 5 credit hours. (W)

### **RNSG 2561 Clinical IV – Nursing (R. N. Training)**

*Formerly RNSG 2463*

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisites: RNSG 2462; corequisites: RNSG 2207 and 2435/2535. 5 credit hours. (W)

### **RSPT 1160 Clinical I – Respiratory Therapy Technician**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. 1 credit hour. (W)

### **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. (W)

### **RSPT 1307 Cardiopulmonary Anatomy and Physiology**

An introduction to the anatomy and physiology of the cardiovascular, renal, and pulmonary systems. Lab required. 3 credit hours. (W)

### **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 physiological interaction. Prerequisite: RSPT 1201. 3 credit hours. (W)

### **RSPT 1361 Clinical II – Respiratory Therapy Technician**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: RSPT 1160. 3 credit hours. (W)

### **RSPT 1362 Clinical III – Respiratory Therapy Technician**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: RSPT 1361. 3 credit hours. (W)

### **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, chest physiotherapy, pulse oximetry, arterial puncture, and interpretation. Lab required. 4 credit hours. (W)

### **RSPT 1411 Respiratory Care Procedures II**

Provides students 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. (W)

### **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. (W)

### **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. Lab required. Prerequisite: Knowledge of cardiac rhythms and consent of program coordinator. 1 credit hour. (W)

**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. (W)

**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. (W)

**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. (W)

**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. (W)

**RSPT 2360 Clinical IV – Respiratory Therapy Technician**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: RSPT 1362. 3 credit hours. (W)

**RSPT 2361 Clinical V – Respiratory Therapy Technician**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: RSPT 2360. 3 credit hours. (W)

**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. (W)

**RSTO 1380 Cooperative Education – Food and Beverage/Restaurant Operations Manager**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 3 credit hours. (W)

**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 RUSS 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 2301 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. 3 credit hours.

**SGNL 2302 American Sign Language (ASL):****Intermediate II**

Continuation of SGNL 2301; 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 2301 or credit by exam. 3 credit hours.

**SLNG 1311 Fingerspelling**

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. Lab required. Prerequisite/corequisite: SGNL 1402. 3 credit hours. (W)

**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 2302. 3 credit hours. (W)

**SLNG 1350 Sign-To-Voice**

Skill development in interpreting and transliterating from American Sign Language and other modes of communication to English and analysis of increasingly complex tasks utilizing simulated interpreting experiences including skills analysis and peer evaluation. Lab required. Prerequisite/corequisite: SLNG 2301 and acceptance into the IPPD Associate of Applied Science degree program. 3 credit hours. (W)

**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. 3 credit hours. (W)

**Classifier Use for Interpreters**

This course addresses the use of classifiers, a complex grammatical feature in ASL. Many interpreters and interpreting stu-

dents have difficulty with this grammatical feature in their interpreting since there is no equivalent in spoken English. Classifiers will be defined and categorized. Students will apply what they have learned by practicing translation and interpretation activities. Practice texts will be used for students to develop increased skills in listening and visualization techniques. Emphasis will be given to listening for linguistic cues that trigger classifier use in an interpreted text. Prerequisite: SLNG 2301 or BEI-Level I.

**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. Prerequisite: SLNG 2301 or BEI-Level I.

**SLNG 1447 Deaf Culture**

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. (W)

**SLNG 2266 Practicum I – Sign Language Interpreter**

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: SLNG 2301 and acceptance into the IPPD Associate of Applied Science degree program. 2 credit hours. (W)

**SLNG 2267 Practicum II – Sign Language Interpreter**

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: SLNG 2266 and 2311 or 1350. 2 credit hours. (W)

**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. (W)

**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. (W)

**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. (W)

**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. (W)

**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: 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 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 Spanish 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 SPAN 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.

**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 2333 Small Group Communication – Student Leadership Academy (SLA)**

Study the various theoretical and practical concepts of leadership and the development of leadership styles. Deliver presentations, create individual portfolios, and work in teams developing strategic initiatives. 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. (W)

**T****TECA 1303 Family and the Community**

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**

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**

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**

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 2301 Introduction to Convention/Meeting Management**

*Replaces TRVM 1327*

Overview of the meetings and convention industry and the various aspects and skills involved in planning and managing meeting, conventions, and expositions. Emphasis on types of meetings, meeting markets, industry suppliers, budget and program planning, site selection and contract negotiations, registration and housing, food and beverage requirements, function and meeting room setup, and audiovisual requirements. 3 credit hours. (W)

## CCCCD GLOSSARY

**AA:** Abbreviation for Associate of Arts degree.

**AAS:** Abbreviation for Associate of Applied Science degree.

**AS:** Abbreviation for Associate of 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 students with information about CCCC's various academic programs, degree requirements, and college transfer.

**Add:** To enroll in another course after your original registration.

**Advanced Placement:** Credit that may be earned through standardized tests offered at the high schools.

**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 human 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, 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.

**Call Number:** A number used during Telephone/Webline Registration to register for a specific course and section.

**Capstone:** The capstone is a learning experience resulting in a consolidation of a student's educational experience and certifies mastery of entry-level workplace competencies. The capstone experience occurs during the last semester of the student's educational program.

**Catalog:** The book containing course descriptions, certificate and associate degree requirements, and general information.

**Class Schedule:** The publication that lists courses and sections for a specific semester, including: name of instructor; day, hour, place of class meeting; and detailed registration procedures.

**CLEP (College Level Examination Program):** 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 another college or university.

**Continuing Education:** A flexible program that offers courses, programs, and certificates geared toward professional development in areas such as, hands-on computer training, Internet applications, small business development, languages and continuing professional education and re-certification.

**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 graduation 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 degree 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.

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

**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 credit hours a student successfully completes including college-level, developmental, non-traditional, and transfer work.

**Electives:** Courses that do not necessarily count toward a major, but are required for most college degrees. Consult an academic advisor before deciding upon electives.

**Emerging Scholars:** See page 40.

**Fee:** A charge, in addition to tuition charges, that the college requires for services and laboratories.

**Field of Study:** See page 45.

**Freshman:** A student's classification until 30 quality credit hours are earned.

**Full-Time:** To be enrolled in 12 or more credit hours during a regular (16-week) semester, six or more credit hours in a five-week summer semester, or nine credit hours in a 10-week summer semester.

**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 concurrent high school students. Other students can obtain their grades on the Telephone/Webline Registration System using their personal identification number (PIN).

**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:** 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:** A student's area of specialization.

**Marketable Skills Achievement Awards:** See page 71.

**Non-advanced Course:** A course 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 loads of more credit hours than students are normally permitted to schedule in a given semester. These overloads require approval of the college registrar.

**PIN (Personal Identification Number):** Used to access Telephone/Webline Registration System and grades. PINs are available from the Admissions and Records Office.

**Part-time:** To be enrolled in less than 12 credit hours in a regular (16-week) semester, less than six credit hours in a five-week summer semester, or less than nine credit hours in a 10-week summer semester.

**Permanent Record:** Cumulative record of students' courses, grades, credits, classification, address, social security number, etc.

**Prerequisite:** A required course that must be taken before enrollment in a subsequent course. A prerequisite may also be a high school course, an appropriate assessment score, or permission from an instructor.

**President's List:** Students who complete 12 or more quality credit hours during a regular (16-week) semester with a current 4.0 GPA or above qualify for the President's List.

**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:** College-level credit 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:** A booklet published (and available on the CCCCD website) prior to each semester listing: courses, sections, instructors, days, times, meeting places, and detailed registration procedures.

**Section:** A number used during registration to differentiate between days, times, room numbers, and professors of the same course.

**Semester:** A term denoting the length of time a student is enrolled in a specific course. For example, there are two long semesters (fall and spring) that last approximately 16 weeks. There are three summer semesters: Summer I and II lasts five weeks and Summer III lasts 10 weeks. Mini semesters (winter and May) are designed for highly-motivated students who can devote time to an intense, fast-paced program of study, which usually is held within a three-week period of time.

**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 or more quality credit hours and have not earned an associate degree.

**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:** 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:** An educational process that helps prepare high school students for emerging technologically advanced careers. Students may earn college credit while attending high school and transfer those Tech Prep credits into specified Associate of Applied Science degree or certificate programs at CCCCD.

**Telephone/Webline Registration:** A system that allows students to register and obtain grades by using a designated personal identification number (PIN).

**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 designed to transfer to other colleges and universities. Because a course will transfer does not mean that it will apply to a specific major or degree plan at a college or university. Please consult an academic advisor.

**Webline:** 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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**FIRST YEAR- First Semester**

Course Number	Course Title	Credit Hours	Prerequisite(s)

**FIRST YEAR- Second Semester**

Course Number	Course Title	Credit Hours	Prerequisite(s)

**FIRST YEAR- Summer Semester**

Course Number	Course Title	Credit Hours	Prerequisite(s)

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Course Number	Course Title	Credit Hours	Prerequisite(s)

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Course Number	Course Title	Credit Hours	Prerequisite(s)

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