

COLLIN COUNTY COMMUNITY COLLEGE DISTRICT 1999-2000 CATALOG

C

C

1 9 9 9 - 2 0 0 0 C A T A L O G

C

C

COLLIN COUNTY COMMUNITY COLLEGE DISTRICT



1999-2000 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, CCCCDD provides accommodations as required by law, to afford equal educational opportunities to all people. An ADA compliance officer can be reached at 972.548.6606.

The programs, policies, statements, fees, and courses contained herein are subject to continual review and evaluation. CCCCDD 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. Upon request, the college catalog is available on computer disk and tape for students with print-oriented disabilities. For more information contact ACCESS (Accommodations at Collin County for Equal Support Services) at 972.881.5898 (VTDD). For persons with hearing or speech impairment, please use the Texas Relay Services when offices or departments on campus do not list a TDD number. The Texas Relay number is 800.735.2989 (TDD).

ACCREDITING BODIES

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

ACCREDITATION STATUS

Collin County Community College District 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.

Central Park Campus

2200 W. University Dr.
P.O. Box 8001
McKinney, Texas 75070
972.548.6790

Spring Creek Campus

2800 E. Spring Creek Pkwy.
Plano, Texas 75074
972.881.5790

Internet Address:

<http://www.ccccd.edu>

Courtyard Center for Professional and Economic Development

4800 Preston Park Blvd.
P.O. Box 869055
Plano, Texas 75086-9055
972.985.3790

Preston Ridge Campus

9700 Wade Blvd.
Frisco, Texas 75035
972.377.1790

Published by Collin County Community College District, Public Relations and Publications Department, Spring Creek Campus, 2800 E. Spring Creek Pkwy., Plano, Texas 75074.

1999-2000 • No. 14 Collin County Community College District

TABLE OF CONTENTS



I. GENERAL INFORMATION	4	III. ACADEMIC POLICIES	20
Academic Calendar	4	Adding and Dropping Courses	20
College Directory	5	Auditing Courses	20
Instructional Divisions	6	Pass/Fail Grade Option	20
Discipline Coordinators	8	Class Attendance	21
History of CCCCD	10	Grading System	21
CCCCD Board of Trustees	12	Graduation	21
II. ADMISSIONS & REGISTRATION	14	High Academic Achievement	22
Admissions Procedures & Residency	14	Incomplete Grades & Contracts	22
New Students	14	Non-Traditional College Credit (NTCC)	22
Returning Students	15	Student Records	23
Students Without a Diploma or GED	15	Repeating Courses	23
Transfer Students	15	Academic Standards	24
Home Schooled Students	15	Student Classifications	25
High School Concurrent Enrollment	15	Student Load	25
Tech Prep	16	Transcripts	25
International Students	16	Veterans' Certification	25
Students on Academic Suspension	17	Withdrawal from the College	25
Residence Requirements	17	IV. STUDENT DEVELOPMENT	26
Orientation	17	Academic Advising	26
Registration Procedures	17	Academic and Personal Enhancement	26
Student ID Cards	18	ACCESS - Accommodations at Collin County for Equal Support Services	26
Tuition and Fees	18	Articulation and Transfer	27
		Assessment and Testing Services	28
		Career Services & Cooperative Work Experience	29
		Counseling Services	31
		Financial Aid	32

Health Services	35	Engineering	57
NETWORKS	35	Geology	58
Student Activities	35	Horticulture/Landscape Technology	58
Student Code of Conduct	35	Mathematics	59
Students with Disabilities	35	Physical Education & Health	59
Tutoring	35	Physics	60
V. EDUCATIONAL SERVICES	36	IX. ASSOCIATE OF APPLIED SCIENCE DEGREES AND CERTIFICATE PROGRAMS	61
Bookstore	36	Chart for Career and Technical Programs	61
Child Development Centers	37	Applied Graphic Design Technology	63
Continuing Education	37	Biotechnology	65
Developmental Education	37	Business Multimedia Technology	66
Emergency Procedures	38	Child Development	68
Experiential Learning Labs	38	Computer-Aided Drafting and Design	69
Fitness Centers	39	Computer Information Systems	71
Intercollegiate Athletics	39	Computer Network Technology	74
Interdisciplinary Honors Program	39	Dental Hygiene	76
International Studies Program	39	Dietary Manager Certificate	77
Intramurals	40	Drafting	77
Learning Resource Centers (LRC & Libraries)	40	Electronic Technology and Electronic Engineering Technology	77
Service Learning	41	Emergency Medical Services Certificate	79
Special Service Programs	41	Environmental Technology	80
VI. DEGREE PLANS	43	Fire Science	81
Associate of Arts and Associate of Science (Core)	43	Horticulture Technology	82
Associate of Applied Science (Core)	45	Hospitality Management	83
VII. ASSOCIATE OF ARTS	46	Interpreter Preparation Program/Deaf	85
Accounting	46	Management	87
Anthropology	46	Marketing	88
Art	47	Music, Commercial	89
Business Administration	47	Nursing	90
Criminal Justice	48	Nutrition	90
Drama	48	Office Administration	90
Economics	48	Paralegal/Legal Assistant	93
English	48	Phlebotomy Certificate	94
French	49	Physical Therapist Assistant	95
Geography	49	Real Estate	96
German	50	Respiratory Care	97
Government	50	Semiconductor Manufacturing Technology	98
History	50	Small Business Management Certificate	99
Music	51	Telecommunications Technology	99
Paralegal/Legal Assistant	51	X. COURSE DESCRIPTIONS	102
Philosophy	52	XI. DIRECTORY	168
Photography	52	Trustees	168
Psychology	52	Executive Staff	168
Sociology	53	Administrators	168
Spanish	53	Instructional Deans	170
Speech	54	Faculty	171
Theatre	54	Services and Programs	178
VIII. ASSOCIATE OF SCIENCE	56	XII. INDEX	181
Biology	56	XIII. CAMPUS MAPS	183
Chemistry	57		
Computer Science	57		

ACADEMIC CALENDAR



FALL 1999

Classes Begin	August 30
Add/Drop	August 30-September 3
Labor Day Holiday (Campuses Closed)	September 6
Census Date	September 13
Last Day to Withdraw	November 19
Thanksgiving Holiday (Campuses Closed)	November 24-28
Final Exams	December 13-18
Winter Break	December 22-January 2

WINTERMESTER 2000

Classes Begin (Monday only)	December 20
Winter Break	December 22-January 2
Classes Resume	January 3
Census Date	January 4
Last Day to Withdraw	January 11
Final Exams	January 14

SPRING 2000

Martin Luther King Holiday (CPC, CYC, & PRC Closed; SCC Open)	January 17
Classes Begin	January 18
Add/Drop	January 18-21
Census Date	January 31
Spring Break (No Classes; Campuses Open)	March 6-9
Spring Break (Campuses Closed)	March 10-12
Last Day to Withdraw	April 14
Spring Holiday (Campuses Closed)	April 21-23
Final Exams	May 8-13
1999-2000 Commencement	May 11

MAYMESTER 2000

Classes Begin	May 15
Census Date	May 16
Last Day to Withdraw	May 26
Memorial Day Holiday (Campuses Closed)	May 29
Final Exams	May 30

SUMMER I & III 2000

Summer I & III Classes Begin	June 5
Summer I Census Date	June 8
Summer I Classes Meet (this one Friday only)	June 9
Summer III Census Date	June 13
Summer I Last Day to Withdraw	June 30
Independence Day Holiday (Campuses Closed)	July 4
Summer I Final Exams	July 6
Summer III Last Day to Withdraw	July 21
Summer III Final Exams	August 9-10

SUMMER II 2000

Classes Begin	July 10
Census Date	July 13
Last Day to Withdraw	August 4
Final Exams	August 10

COLLEGE DIRECTORY

STUDENT SERVICES	Central Park	Courtyard Center	Preston Ridge	Spring Creek
Admissions and Records Office	972.548.6710		972.377.1744	972.881.5710
Fax	972.548.6702	972.985.3723	972.377.1723	972.881.5636
Special Admissions	972.548.6782		972.377.1778	972.881.5782
Academic Action Coordinator				972.881.5165
Academic Advising	972.548.6782		972.377.1778	972.881.5782
ACCESS Office	972.548.6770		972.377.1770	972.881.5898
Voice/TDD				972.881.5950
Articulation and Transfer Programs	972.548.6759		972.377.1757	972.881.5757
Bookstore	972.548.6680	972.985.3710	972.377.1680	972.881.5680
Career Services and Cooperative				
Work Experience Office	972.548.6747		972.377.1781	972.881.5781
Cashier's Office	972.548.6616	972.758.3830	972.377.1637	972.881.5634
Counseling Services	972.548.6615		972.377.1770	972.881.5779
Financial Aid Office	972.548.6760		972.377.1760	972.881.5760
Global EDGE	972.548.6723			
Information Center	972.548.6790	972.985.3790	972.377.1790	972.881.5790
Fax	972.548.6702	972.985.3723	972.377.1723	972.881.5636
International Students Office				972.516.5011
Learning Resources Center	972.548.6860		972.377.1560	972.881.5860
PROMISE Program	972.548.6851			
Recruitment Office	972.548.6777		972.377.1750	972.881.5110
Registration	972.548.6744	972.985.3720	972.377.1744	972.881.5744
Student Activities Office	972.548.6788		972.377.1788	972.881.5788
Student Development Center	972.548.6770		972.377.1770	972.881.5770
TASP Office				972.881.5902
Testing Center	972.548.6849		972.377.1522	972.881.5922
Theatre Box Office				972.881.5809
Vice President of Student Development				
Dr. Mary McRae				972.881.5771

ADMINISTRATIVE & INSTRUCTIONAL OFFICES	Central Park	Courtyard Center	Preston Ridge	Spring Creek
President				
Dr. John Anthony		972.758.3800		
Vice President for Instruction				
Dr. Steve Ellis		972.758.3805		
Campus Provost				
Dr. Belinda Newman	972.548.6800			
Dr. Tom Rodgers			972.377.1550	
Dr. Martha Ellis				972.881.5802

Instructional Deans and Program Coordinators

See pages 6-9 of this catalog.

Faculty, Administrators, Executive Staff, and Board of Trustees

See the Directory in the back of this catalog.

INSTRUCTIONAL DIVISIONS



BUSINESS & COMPUTER SCIENCE

Dean: Dr. Lillie Palmer

Central Park Campus	B305.....	972.548.6830
Preston Ridge Campus	H245	972.377.1731
Spring Creek Campus	J122.....	972.881.5846
Division Academic Advisor	Terrence Brennan.....	972.377.1513

(See faculty listing, page 170)

- Accounting
- Business Administration
- Business Law
- Business Multimedia Technology
- Computer Information Systems
- Computer Science
- Economics
- Hospitality Management
- Paralegal/Legal Assistant
- Management Development
- Marketing
- Office Administration
 - Medical Transcription
- Real Estate
- Small Business Management

DEVELOPMENTAL EDUCATION

Dean: Ms. Juanita Austin

Central Park Campus	B305.....	972.548.6830
Preston Ridge Campus	F210	972.377.1585
Spring Creek Campus	K104.....	972.881.5720
Division Academic Advisors	Dawn Alexander	972.881.5109
	Kerry Tate	972.881.5950

(See faculty listing, page 170)

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

ENGINEERING TECHNOLOGY

Dean: Mr. John Baltzer

Central Park Campus	B305.....	972.548.6830
Preston Ridge Campus	H210	972.377.1715
Division Academic Advisor	Susan Nethery.....	972.377.1515

(See faculty listing, page 171)

- Computer Aided Drafting & Design
- Computer Network Technology
- Electronic Technology
- Electronics Engineering Technology

- Engineering
- Semiconductor Manufacturing Technology
- Telecommunications Technology

FINE ARTS

Dean: Mr. Michael Crawford

Central Park Campus	B305.....	972.548.6830
Preston Ridge Campus	.....	972.377.1507
Spring Creek Campus	A177.....	972.881.5107
Division Academic Advisor	Todd Fields.....	972.881.5903

(See faculty listing, page 172)

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

HEALTH SCIENCES, PHYSICAL EDUCATION, & CHILD DEVELOPMENT

Dean: Mr. Rex Parcells

Central Park Campus	E302.....	972.548.6679
Preston Ridge Campus	A110.....	972.377.1752
Spring Creek Campus	A218.....	972.881.5925
Division Academic Advisors	Michele Boverie.....	972.881.5773
	Lynne Meyer.....	972.548.6778

(See faculty listing, page 172)

- Child Development
- Dental Hygiene
- Emergency Medical Services
- Health, PE and Dance
- Nursing
- Phlebotomy
- Physical Therapist Assistant
- Respiratory Care
- Surgical Technology

HUMANITIES & INTERNATIONAL STUDIES

Dean: Mr. Mitchell Smith

Central Park Campus	B305.....	972.548.6830
Preston Ridge Campus	F210.....	972.377.1585
Spring Creek Campus	B189.....	972.881.5810
Division Academic Advisor	Todd Fields.....	972.881.5903

(See faculty listing, page 173)

- Communications
- English
- Foreign Languages

- Humanities
- International Studies
- Interpreter Preparation Program/Deaf
- Philosophy
- Radio and Television
- Sign Language
- Speech

MATHEMATICS & NATURAL SCIENCES

Dean: Dr. Sheryl Kappus

Central Park Campus	B305.....	972.548.6830
Preston Ridge Campus	F210.....	972.377.1585
Spring Creek Campus	K102.....	972.881.5880
Division Academic Advisor	Kathy Hopkins.....	972.881.5677

(See faculty listing, page 175)

- Biology
- Biotechnology
- Chemistry
- Dietary Manager
- Environmental Science
- Environmental Technology
- Horticulture/Landscape Technology
- Mathematics
- Nutrition
- Physical Science
- Physics
- Pre-Dental
- Pre-Medical
- Pre-Veterinary

SOCIAL SCIENCES & PUBLIC SERVICES

Dean: Mr. Gary Hodge

Central Park Campus	B305.....	972.548.6830
Preston Ridge	F210.....	972.377.1585
Spring Creek Campus	B240.....	972.881.5800
Division Academic Advisor	Tori Hoffman.....	972.881.5114

(See faculty listing, page 176)

- Anthropology
- Criminal Justice
- Fire Science
- Geography
- Government
- History
- Law Enforcement Academy
- Psychology
- Sociology

DISCIPLINE COORDINATORS



Academic & Personal Enhancement (ACPE)

Linda QualiaSCC/G201972.881.5779

Accounting (ACCT, ACNT)

Dean Wallace.....SCC/H207972.881.5706

Applied Graphic Design Technology (AGDT)

Gaye Cooksey.....SCC/K119.....972.881.5968

Anthropology (ANTH)

Jeff MacKinnonSCC/H219972.881.5112

Art (ARTS)

Lee AkinsSCC/A249.....972.881.5951

Biology (BIOL)

David McCulloch (Co-Coordinator)SCC/J225972.881.5991

Mary Weis (Co-Coordinator)SCC/K244.....972.881.5725

Biotechnology (BIOT)

Sheryl KappusSCC/K102.....972.881.5881

Business Administration (BUSI)

Peter Dawson (BLAW)SCC/K227.....972.881.5031

Business Multimedia Technology (CSCI)

Mary Emerson (Faculty Adviser).....PRC/H111.....972.377.1687

Chemistry (CHEM)

Fred JurySCC/J238972.881.5883

Child Development (CDEC) and Early Childhood Administration

Elaine BoskiSCC/B175972.881.5967

Chinese (CHIN)

Elke MatijevichSCC/K229.....972.881.5970

Communications (COMM)

Radio & Television, Speech

Shelley Lane.....SCC/B108972.881.5821

Photography

Gary BishopSCC/K119.....972.881.5159

Computer-Aided Drafting and Design (DFTG, INTD)

Glenn AdamsPRC/H114.....972.377.1689

Computer Information Systems (BCIS, CSCI) & Computer Science (COSC)

William Blitt.....SCC/J115972.881.5784

Computer Network Technology (CNWT)

Tom JonesPRC/H219.....972.377.1714

Criminal Justice (CRIJ)

.....972.881.5800

Dance (DANC)

Tiffanee ArnoldSCC/B106972.881.5830

Dental Hygiene (DENH)

Joanne FletcherCPC/A120972.548.6738

Dietary Manager/Nutrition (DITA)

Mary Weis.....SCC/K244.....972.881.5725

Economics (ECON)

Mike CohickSCC/J104972.881.5840

Electronic Technology (CETT, CPMT, CSIR, EECT, ELMT, INMT, LOTT)

Joe HackneyPRC/H115.....972.377.1746

Electronic Engineering Technology (CETT, CPMT, CSIR, EECT, ELMT, INMT, LOTT)

Joe HackneyPRC/H115.....972.377.1746

Emergency Medical Services (EMTP)

Robert SherardCPC/E307972.548.6848

Engineering (ENGR)

Glenn AdamsPRC/H114.....972.377.1689

English (ENGL)			
Sherill Cobb.....	SCC/B193	.....	972.881.5812
English, Developmental (ENGL)			
Marti Miles-Rosenfield.....	SCC/B120	.....	972.881.5183
English as a Second Language (ESLC, ESLG, ESLL, ESLR, ESLS, ESLV, ESLW)			
Shirley McBride.....	SCC/J218	.....	972.881.5675
Environmental Science & Technology (ENVR, EPCT)			
Sheryl Kappus.....	SCC/K102	.....	972.881.5880
Fire Science (FIRS, FIRT)			
Pat McAuliff.....	CPC/A219	.....	972.548.6837
French (FREN)			
Kemal Moula.....	SCC/G217	.....	972.881.5678
Geography (GEOG)			
Larry Stern.....	SCC/J246	.....	972.881.5608
Geology (GEOL)			
Robert Forester.....	SCC/B228	.....	972.881.5712
German (GERM)			
Elke Matijevich.....	SCC/K229	.....	972.881.5970
Government (GOVT)			
Ted Lewis.....	PRC/F213	.....	972.377.1535
Loren Miller.....	SCC/H216	.....	972.881.5895
History (HIST)			
Sam Tullock.....	SCC/G222	.....	972.881.5737
Wendy Gunderson.....	PRC/F114	.....	972.337.1536
Horticulture/Landscape Technology (HORT)			
Kevin Starnes.....	SCC/J220	.....	972.881.5908
Hospitality Management (HAMG, FDST, RSTR)			
Karen Musa.....	PRC/F112	.....	972.377.1672
Russell Kunz.....	PRC/H230C	.....	972.377.1702
Humanities (HUMA)			
Peggy Brown.....	SCC/H235	.....	972.881.5808
Interpreter Preparation Program/Deaf (IPPD)			
Helene Cohen-Gilbert.....	SCC/G237	.....	972.881.5152
Japanese (JAPN)			
Elke Matijevich.....	SCC/K229	.....	972.881.5970
Law Enforcement Academy			
Ron Spears.....	CPC/A354	.....	972.548.6861
Management Development (BMGT, HRPO, QCTC)			
Russell Kunz.....	PRC/H230C	.....	972.377.1702
Marketing (MRKG, BMGT, IBUS)			
Gloria Cockerell.....	SCC/J247	.....	972.881.5736
Mathematics (MATH)			
Bill Ardis (Co-Coordinator).....	PRC/F216	.....	972.377.1584
Denise Brown (Co-Coordinator).....	SCC/B134	.....	972.881.5886
Mathematics, Developmental (MATH)			
Rosemary Karr.....	SCC/K218	.....	972.881.5865
Medical Transcription (OFAD)			
Linda Thompson.....	CPC/A200B	.....	972.548.6815
Music (MUAP, MUEN, MUSB, MUSC, MUSI)			
Brian Allison.....	SCC/B182	.....	972.881.5813
Nursing (NURS)			
Vivian Lilly.....	CPC/E308	.....	972.548.6883
Office Administration (OFAD)			
Diana Ramsower.....	SCC/J117	.....	972.881.5835
Mary Jane Tobaben.....	PRC/H118	.....	972.377.1701
Paralegal/Legal Assistant (LGLA)			
P. Dee Roessler.....	CPC/A200A	.....	972.548.6823
Philosophy (PHIL)			
Carl Hasler.....	SCC/D116	.....	972.881.5753
Phlebotomy (HLSC)			
Anita Lau.....	CPC/A325	.....	972.548.6840
Photography (ARTS, COMM)			
Gary Bishop.....	SCC/K119	.....	972.881.5159
Physical Education, Health (PHED)			
Susan Evans.....	SCC/A211	.....	972.881.5150
Physical Therapist Assistant (PTHA)			
Colleen Graf.....	CPC/E305	.....	972.548.6854
Physics (PHYS)			
Michael Broyles.....	SCC/J139	.....	972.881.5882
Psychology (PSYC)			
Dan Lipscomb.....	SCC/G229	.....	972.881.5715
Barbara Lusk.....	CPC/B200c	.....	972.548.6809
Reading, Developmental (READ)			
Shirley McBride.....	SCC/J218	.....	972.881.5675
Real Estate (RELE)			
Patricia Banta.....	CYC/B323	.....	972.985.3707
Respiratory Care (RTTP)			
Allen Barbaro.....	CPC/E308	.....	972.548.6870
Russian (RUSS)			
Elke Matijevich.....	SCC/K229	.....	972.881.5970
Semiconductor Manufacturing Technology (SMFT)			
Joe Hackney.....	PRC/H115	.....	972.377.1746
Sign Language (SGNL)			
Helene Cohen-Gilbert.....	SCC/G237	.....	972.881.5152
Sociology (SOCL)			
Larry Stern.....	SCC/J246	.....	972.881.5608
Small Business Management (BMGT, BUSG)			
Gloria Cockerell.....	SCC/J247	.....	972.881.5736
Spanish (SPAN)			
Estelita Young.....	SCC/G215	.....	972.881.5724
Speech Communication (SPCH, COMM)			
Shelley Lane.....	SCC/B108	.....	972.881.5821
Telecommunications Technology (CETT, EECT, INTC, LOTT)			
Peter Brierley.....	PRC/H230E	.....	972.377.1686
Theatre (DRAM)			
Brad Baker.....	SCC/C155	.....	972.881.5679
Writing, Developmental (ENGL)			
Marti Miles-Rosenfield.....	SCC/B120	.....	972.881.5183

Email addresses: first letter of first name, last name@cccd.edu; example: jdoe@cccd.edu

HISTORY OF CCCC



Collin County Community College District (CCCCD) began offering its first classes on-site at area high schools in 1985 and has now grown into the ninth-largest community college district in Texas, with four locations serving more than 30,000 credit and non-credit students. CCCC has established itself as a leader in higher education for academic programs that are responsive to community needs.

CCCCD opened its first campus, Central Park Campus (CPC), in McKinney, in January 1986. Located on 115 acres just west of State Highway 75 on Highway 380, the campus includes a 207,000 square-foot facility that houses a fitness center, the James and Pat Aston Center for Health Studies, physical therapy rehabilitation lab, and dental clinic. The new 11,000 square-foot fire training facility and 6,914 square-foot indoor shooting range, located at CPC, were opened in Spring 1999. CPC is the center for the college's allied health and public services programs, including emergency medical technology, nursing, dental hygiene, phlebotomy, physical therapist assistant, respiratory care, surgical technology, law enforcement, and fire science.

CCCCD continued to expand, and in the fall of 1988, opened the Spring Creek Campus (SCC). Located at the intersection of Jupiter Road and Spring Creek Parkway in Plano, the 430,000 square-foot facility houses the John Anthony Theatre, the Black Box Theatre, the Fine Arts Building (consisting of 30,000 square feet and opening Summer 1999), Express Hall Gymnasium, the Express Tennis Complex, Sewell Field (baseball), and College Place Apartments (on-campus housing opening Fall 1999). SCC's academic specialties include liberal arts, fine arts, applied graphic design technology, humanities/international studies, and mathematics/natural sciences. SCC is also home to several of CCCC's

intercollegiate Express sports teams, including men's basketball, baseball, and tennis, and women's volleyball, basketball, and tennis.

In July 1995, CCCC opened its third campus, the Preston Ridge Campus (PRC), located north of State Highway 121 and east of Highway 289 (Preston Road) in Frisco. The Preston Ridge Campus originally included Heritage Hall and Founders Hall, and Alumni Hall, which houses a fitness center and natatorium, opened in August 1997. A 25,199 square-foot classroom building, University Hall, and 6,230 square-foot student center will open this fall. The Sue Willard Olivier Community Gardens and the EDS Superdrome, a world-class bicycling facility, are also located at this campus. PRC is home of most of the college's high-tech and business programs, such as biotechnology, engineering technology, hotel/hospitality management, semiconductor manufacturing, computer network technology, computer-aided drafting and design, office administration, and telecommunications. The college cycling team and women's softball team play and practice at Preston Ridge Campus.

A fourth site for the district was purchased in 1993, the Courtyard Center for Professional and Economic Development (CYC). Located on Preston Park Boulevard in Plano near the intersection of Park Boulevard and Preston Road, CYC is an 80,000 square-foot, four-story complex that houses continuing education, corporate training, special service programs, the Small Business Development Center, and the Plano Economic Development Board. Courses offered at the Courtyard Center include up to 2,000 continuing education classes, real estate courses, contract and corporate training, Seniors Active in Learning (SAIL), and Project NEW (Network to Empower Entrepreneurial Women).

Collin County Community College District offers flexible scheduling with day, evening, and weekend classes at all campuses. Courses are also offered Tuesday through Thursday evenings at Rockwall High School and daily at the CCCCD@ALLEN facility, opening this fall and located at the new Allen High School. General education courses are available at all CCCCD sites.

Various CCCCD facilities are open to residents of Collin and Rockwall Counties and The Colony, including the Learning Resource Centers, Career Services, fitness centers, the dental clinic, and the shooting range. Offices within CCCCD@ALLEN are also open for public use. In addition, the community is invited to attend the many events happening on CCCCD campuses, such as award-winning theater productions, guest speakers, art exhibits, concerts, and athletic events. Community members may also lease space at all campuses to set up vendor booths or host conferences and meetings.

Collin County, with a population of 397,100, supports the college district through ad valorem taxes. The county begins approximately 15 miles north of downtown Dallas and covers 836 square miles. In addition to Collin County, Rockwall County and The Colony in Denton County are part of CCCCD's service area, as designated by state legislation.

ACCOMPLISHMENTS

CCCCD has achieved a level of success and accomplishment that is virtually unparalleled anywhere at the two-year college level. Some of our recent accolades include:

- Nationally recognized collegiate theatre program
- Internationally known music program
- Outstanding performance of transfer students
- Three Piper Professors and two Fulbright Scholars
- Outstanding pass rate on national exams for allied health programs
- Eight national championships in NJCAA intercollegiate tennis.

MISSION STATEMENT

Collin County Community College District affirms as its mission the commitment to provide, within the resources available, educational programs and services that meet the individual and community needs. The district seeks to promote lifelong individual growth and excellence through strengthening the intellect, character and capabilities of all students. The college acts as a resource to local, state, national and international communities by providing educational, cultural and civic programs and services.

PHILOSOPHY AND PURPOSE

The philosophy of Collin County Community College District is to achieve its mission by promoting:

- Universal access
- Personal development
- Open involvement and active participation in the learning and decision-making process
- Recognition, acceptance and encouragement of diversity

- High standards of innovation and excellence
- Recognition of the dignity and worth of all individuals
- Flexible class scheduling
- Strong core curriculum
- Writing across the curriculum
- Commitment to educational technology.

GOALS

- To expand knowledge and develop skills through an integrated general education curriculum and support services that enable students to grow within a changing environment and to be productive citizens of the community and workplace.
- To assist students in identifying and accomplishing their educational, career and personal goals.
- To create an environment that promotes cultural understanding, social responsibility and international awareness.
- To contribute to the economic growth and development of Collin County by offering diverse programs and services.
- To develop and effectively utilize human, fiscal and physical resources of the college.

CCCC BOARD OF TRUSTEES



Cynthia Bauge
Plano

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

Other Involvements:

CCCCD Foundation Board, CCCCCD mentor, Plano Chamber of Commerce (Athena award winner: Business Woman of the Year), Global EDGE Advising Board, member of the PRC Business and Industry Task Force

I think the college offers multiple resources: education for graduating seniors and those who care to continue their education through a college career, workforce training development, and continuing education courses.



Dr. E.T. Boon
Allen

Profession: Retired dentist, former practice: E.T. Boon, DDS

Other Involvements:

President of the Allen Economic Development Corporation, member of the Collin County Planning Board

The reason I serve on the board is to give the students a better quality education at a better price. Any person in Collin County that desires an education at CCCC will be afforded the opportunity regardless of financial resources.



Dr. Bob Collins
Farmersville

Founding Board Member

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

Other Involvements:

Chairman of the Board of the Greenville Christian School, member of the External Engineering Advisory Board for Texas A&M University at College Station

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



Carey Cox
McKinney

Founding Board Member and Chairman

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

Other Involvements:

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

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

CCCC BOARD OF TRUSTEES



**Dr. Gary Harris
Celina**

Profession: Endodontist; Partner of the North Texas Endodontic Association

Other Involvements: Member of the American Dental Association and the American Association of the Endodontists

The older my children get, the more I realize the awesome responsibility we have to educate our future leaders. The education one receives can never be taken from you. That is the greatest gift we can give our children.



**Glenn Justice
Parker**

Profession: Retired mortgage banker; owned the Glenn Justice Mortgage Company

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

I think the college has the finest staff and professors in the country; they are well qualified. In my estimation, Dr. Anthony has done more for the future of Collin County than any one individual; Collin County will reap the benefits of what he has done for years to come.



**Margaret Reynolds
Plano**

Profession: Retired PISD elementary school principal

Other involvements: Original Building Committee member of the St. Andrew United Methodist Church in Plano, Collin County Judicial System Committee member, 1988 Plano Woman of the Year

Having such a premier college so accessible is wonderful. Community colleges are so valuable. I am a product of one myself. I think the job Dr. Anthony and his staff have done is remarkable. I think every resident of Collin County could benefit from the college, if they haven't already.



**Sam Roach
Frisco**

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

Other Involvements: Member of the CCCC Foundation Board, member of the Heard Museum Board, 12-year member of the Frisco ISD Board of Trustees, Frisco Chamber of Commerce member

I think our community college provides a quality program for every citizen of Collin County. I am happy to be a small part of it all. We strive very hard at the college to provide everyone with an opportunity to better themselves in some way.



**Tino Trujillo
Plano**

Founding Board Member

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

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

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

ADMISSIONS & REGISTRATION



ADMISSIONS PROCEDURES & RESIDENCY

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

NEW STUDENTS

New students should submit to the Admissions Office:

1. An application for admission. This application may be submitted prior to, or at the time of, registration.
2. An official transcript from their most recent high school or college attended or a copy of their GED scores, and all new students must take TASP before enrolling in a Texas Public Institution of Higher Education. Students applying for and/or receiving financial aid or veterans benefits are required to submit a complete record of all

academic work including high school transcripts. Degree-seeking students will be required to submit all official transcripts.

3. Students who have completed the SAT and/or ACT are encouraged to submit their scores.
4. Admission to the college does not guarantee admission to a specific program of study. Programs and certificates in dental hygiene, dietary manager, emergency medical services, firefighter certificate, hotel/hospitality management, interpreter preparation program/deaf, nursing, physical therapist assistant and respiratory care have additional admissions criteria. Refer to the specific program in this catalog, and contact the division office for information on program requirements.

TUITION REBATES FOR CERTAIN UNDERGRADUATES

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

RETURNING STUDENTS

Former CCCC students who have not been enrolled during the preceding two regular (16-week) semesters will need to reapply for admission. An application for readmission and an official transcript from the last college or university attended since their last enrollment at CCCC and documentation of TASP status are required. For more information on residency, see page 17.

STUDENTS WITHOUT DIPLOMA OR GED

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

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

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

TRANSFER STUDENTS

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

Students who transfer to CCCC 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 CCCC.
3. Students must be currently admitted to CCCC to request a degree plan.
4. Official course descriptions from the catalog under which the student attended may be required for evaluation.
5. Credit for courses equivalent to those listed in the *CCCC Catalog* will be accepted if the courses are required on the student's degree plan for graduation. Other credits may be accepted in lieu of elective courses depending on the student's program of study.

6. Only the grade and credits earned in the most recent repeated course will be used in computing the grade point average and applied toward degree or program requirements.
7. Official evaluations are conducted by the degree plan coordinator. Final approval rests with the division dean.
8. Grades of "D" are accepted from other institutions; however, a cumulative GPA of 2.0 is required for graduation. Grades of "F" and "I" do not transfer.
9. Waivers for physical education requirements may be granted for medical reasons. A written statement from a physician and one additional hour of electives are required. Credit for PHED courses is awarded for military training upon receipt of a student's DD214 (Honorable Discharge).
10. While there is no limit on the number of hours that can be transferred into CCCC from other institutions, there is an 18 credit hour residency requirement to earn an associate degree from CCCC. Students obtaining certificates containing 18 hours or less must complete course work in residence at CCCC. Petitions to transfer credits into certificate programs containing 18 hours or less may be made to the division dean through the degree plan coordinator.
11. Time limits and minimum grade requirements may be imposed for transfer work into select programs. Contact the program coordinator or division dean for details.
12. CCCC does not evaluate transcripts (except for TASP exemption purposes) or award transfer credit earned at foreign institutions; however, students may be eligible for credit through examination at the college.

HOME-SCHOOLED STUDENTS

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

1. Provide a completed SAT I score report with a verbal and math score of no less than 500 for each section, or an ACT score report of 19 on reading and English sections,
 2. Complete CCCC assessments scoring at the college level in reading, writing, and math,
 3. Submit an official transcript or notarized academic record from the last or current high school attended (including home school programs),
 4. Submit TASP scores or provide SAT, ACT, or TAAS scores showing exemptions or take the alternative test (see TASP section for details), and
 5. Contact an academic adviser.
- Course selection and load are not to exceed two college credit courses per semester. Admission and continued enrollment are provisional.

HIGH SCHOOL CONCURRENT ENROLLMENT

(PROJECT FIRST STEP)

High school students who have completed their junior year and are interested in concurrent admission, also known as Project First Step, at CCCC 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 CCCC institutional assessments (reading and writing assessments are required: math assessment is optional depending on course selection),
4. Submit TASP scores or provide SAT, ACT, or TAAS scores showing exemptions or take the alternative test (see TASP section for details), and
5. Contact an academic adviser.

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

High school students who were enrolled in a Tech Prep program while in high school may be eligible for two to 15 tuition-free college credits at CCCC.

CRITERIA FOR ELIGIBILITY:

- You were enrolled in one of the following Tech Prep programs at your high school: Child Development, Computer-Aided Drafting and Design, Computer Network Technology, Criminal Justice, Electronics Technology, Management Development, or Office Administration.



- You have completed high school Tech Prep classes approved for college credits and earned a grade of "C" or better in each course. (All Keyboarding and Word Processing courses require a minimum grade of 85%.)
- You have enrolled in and successfully completed 12 credit hours in a Tech Prep program at CCCC.

If you meet the above criteria, you may apply for Tech Prep credit within 27 months of your enrollment at CCCC. To do so, complete the Petition for Tech Prep Credit form and submit it to the Admissions and Records Office along with your high school transcript(s) reflecting Tech Prep courses and grades. Tech Prep credit can only be awarded at CCCC.

You must successfully complete 12 credit hours at CCCC before your Tech Prep credits will appear on your transcript.

INTERNATIONAL STUDENTS

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

INTERNATIONAL STUDENT ADMISSIONS

(F-1, F-2 VISAS)

All international students must submit to the International Office:

1. An application for admission,
2. An official international TOEFL score* of 525 or above. CCCC's institutional code is 6805. The institutional TOEFL score of 525 from the University of North Texas may be substituted for the TOEFL. Students who can document they have graduated 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 6 months of beginning of semester and the supporting evidence statement,
4. Submit an official transcript (school records) from the last school attended,
5. Upon arrival, students must present all original immigration documents, including a valid visa (I-94 arrival/departure record), an unexpired passport, and a copy of the I-20 and the original Affidavit of Support, to be copied and kept on file.
6. TASP or alternative test score (to be taken upon arrival at CCCC).

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

**Students with a TOEFL score between the range of 425-524 may be considered for admission upon the written recommendation of the ESL Coordinator and by meeting all other requirements. Students would be admitted on a provisional basis and would be required to be enrolled in 12 semester hours of ESL courses continuously for both the fall and spring semesters.*

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

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

1. A copy of your current I-20, passport, visa, I-94 card
2. Transfer clearance from your international student adviser from the last college or university attended.
3. TASP or alternative test score (to be taken upon arrival at CCCC) 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.

STUDENTS ON ACADEMIC SUSPENSION

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

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

Admission and continued enrollment are provisional. The college reserves the right to limit the number of hours and/or specify courses in which a student on suspension may enroll. Probationary status is imposed until the student has a 2.0 cumulative GPA for two semesters.

See "Academic Standards" on page 20 or contact the Academic Action Coordinator at 972.881.5165 for more information.

RESIDENCE REQUIREMENTS

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

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

The responsibility for registering under the proper residency classification is that of the student, and any question concerning the student's right to classification as a resident of Collin County must be clarified prior to enrollment at CCCC. Changes of address, name, etc. must be reported promptly to the Admissions and Records Office. This enables students to receive registration and other information from various college departments and programs. Changes of address affecting residency should promptly be reported to the Admissions and Records Office.

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

DOCUMENTS TO SUPPORT RESIDENCY

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

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

AD VALOREM WAIVERS

Students who have not lived in Texas for the 12 months preceding registration, but who own property in Collin County, may be eligible for an ad valorem waiver. A copy of one's deed or most recent property tax statement is required for verification. If this waiver is based on a student's parents' property ownership, a copy of their most recent Federal Income Tax form showing the student as a dependent is also required. Once Texas residency has been established (12 months), ad valorem waivers will no longer be necessary. Property owners on most types of temporary visas are not eligible for the ad valorem waiver. Students must generally be U.S. citizens or permanent residents to be eligible for an ad valorem waiver.

ORIENTATION

Orientation provides an overview of the policies, procedures, services and student activities at CCCC. The initial concerns of both traditional and non-traditional students are addressed. The orientation dates and times are available at the information centers.

REGISTRATION PROCEDURES

EARLY REGISTRATION

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

REGULAR REGISTRATION

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

LATE REGISTRATION

Students who must register late should do so within the published late registration schedule. 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 Express or regular 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 20 for details.

REGISTRATION FOR CONTINUING EDUCATION CLASSES

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

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

STUDENT ID CARDS

All credit students at CCCC are required to have a student identification card to use the services provided by the Bookstore, Fitness Center, Admissions and Records Office, Student Activities Office, Career Services Office, Testing Center, and other offices and labs. Students will have one ID card to use throughout their enrollment at CCCC.

A non-refundable fee is assessed with other registration fees for each student who has not previously purchased an ID card. First-time cards are issued during registration periods to all new and returning students. Replacement cards will be made for those whose cards have been lost, stolen, or damaged, who have had a name change, or who would prefer a

new photo.

Students should go to the Student Activities Office at Central Park or Spring Creek campuses or to the Testing Center at Preston Ridge Campus with a valid photo ID to have their student ID cards issued.

Fall ID cards are made beginning in early August, Wintermester/Spring ID cards beginning in early December and Maymester/Summer ID cards beginning in early May.

TUITION AND FEES

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

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

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

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

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

TUITION AND FEES SCHEDULE*

Credit Hours	In-County \$27/credit hour	Out-of-County \$35/credit hour	Out-of-State/Country \$70/credit hour
1	\$47.00*	\$47.00	\$222.00*
2	\$66.00	\$82.00	\$232.00
3	\$93.00	\$117.00	\$242.00
4	\$120.00	\$152.00	\$292.00
5	\$147.00	\$187.00	\$362.00
6	\$174.00	\$222.00	\$432.00
7	\$201.00	\$257.00	\$502.00
8	\$228.00	\$292.00	\$572.00
9	\$255.00	\$327.00	\$642.00
10	\$282.00	\$362.00	\$712.00
11	\$309.00	\$397.00	\$782.00
12	\$336.00	\$432.00	\$852.00
13	\$363.00	\$467.00	\$922.00
14	\$390.00	\$502.00	\$992.00
15	\$417.00	\$537.00	\$1,062.00
16	\$444.00	\$572.00	\$1,132.00
17	\$471.00	\$607.00	\$1,202.00
18	\$498.00	\$642.00	\$1,272.00
19	\$525.00	\$677.00	\$1,342.00
20	\$552.00	\$712.00	\$1,412.00
21	\$579.00	\$747.00	\$1,482.00

*Includes minimum tuition required by law.

+Tuition and fees are subject to change by the CCCC Board of Trustees

COST PER CREDIT HOUR EXAMPLE

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

Per Hour	In-County	Out-of-County	Out-of-State
Tuition	\$17	\$25	\$60
Bldg. Use Fee	9	9	9
Student Activities Fee	1	1	1
Total	<u>\$27</u>	<u>\$35</u>	<u>\$70</u>

OTHER FEES

Other fees are applied as required regardless of residency.

Per Semester

- Student Records fee\$2
- Technology fee (Fall & Spring)\$10
- Technology fee (Summer I, II, or III)\$5

First Enrollment

- Student ID Card fee*\$2
 (replacement cards cost an additional \$2 each)+

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 fee is subject to change. Any change in the cost of a student ID card or replacement card will be listed in the CCCC Schedule of Classes.

** Non-refundable

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

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

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

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

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



SENIOR CITIZEN REDUCED TUITION

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

Age 55-64—\$10 per credit hour for tuition; building use fee and other fees will be charged as 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 above. See current *Schedule of Classes* for more information.

ACADEMIC POLICIES



ADDING/DROPPING COURSES

A change in a student's class schedule may be made by telephone during Telephone EXpress (TEX) registration or by submitting an Add/Drop form to the Admissions and Records office when TEX is not available. 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 25, for exact procedures.

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

AUDITING COURSES

Students who are auditing classes will not receive grades or credit for the course, but the transcript will indicate that the course was audited. Students who are auditing classes will not be required to take tests; however, participation in regular class activities is expected. Foreign language classes may not be audited. (The Continuing Education Department offers foreign language classes. See the current *Continuing Education Schedule of Classes*.)

Any student intending to audit a course may register for that course during late registration only. Audit students are subject to the usual registration process. A special non-refundable audit fee is assessed for each class in addition to regular tuition and fees.

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

PASS/FAIL GRADE OPTION

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

CLASS ATTENDANCE

Regular classroom attendance is expected of all students. Class attendance requirements are determined by professors: therefore, a student should ascertain each professor's attendance policy on the first day of the class.

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

RELIGIOUS HOLIDAYS

In accordance with Section 51.911 of the Texas Education Code, CCCC will allow a student who is absent from class for the observance of a religious holy day to take an examination or complete an assignment scheduled for that day within a reasonable time. Students are required to file a written request with each professor within the first 15 days of the semester to qualify for an excused absence. A copy of the state rules and procedures regarding holy days and the form for notification of absence from each class under this provision are available from the 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 & Contracts" section.)
IP	In-Progress	0 grade points per credit hour; not computed toward cumulative GPA. Student has completed 70 percent of the program but is not yet at competency level; must complete the remaining work during the next long semester or receive an "IP" as the permanent grade. "IP" earned only in ENGL 0300, 0305, 0310, 0315 and ESL classes.
AU	Audit	0 grade points per credit hour; is not computed toward cumulative grade point average nor cumulative hours.

CR	Credit	0 grade points per credit hour; is not computed in GPA but is computed in cumulative hours. Earned only when recording non-traditional credit or continuing education units.
Z	No grade reported	0 grade points per credit hour until it is replaced by professor with a performance grade; is not computed in cumulative grade point nor cumulative hours.
P	Pass	0 grade points per credit hour; is not computed in GPA but is computed in cumulative hours.

At the completion of each term, the college will determine the student's semester and cumulative grade point averages, which will be recorded on the student's official transcript. Grades earned in developmental education courses are not included in the grade point average. Grades are available through Telephone EXpress (TEX).

GRADUATION

The college offers Associate of Arts, Associate of Science, and Associate of Applied Science degrees and certificate programs. Students who plan to graduate from CCCC should request a degree plan prior to the completion of 30 credit hours. Students must be currently admitted to CCCC to request a degree plan. Students may graduate under any of the college's catalogs from the preceding five years as long as the student was enrolled under that catalog; however, students may benefit from graduating under the requirements of the most recent catalog.

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

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

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

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

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

ASSOCIATE DEGREES

Students may earn an Associate of Arts degree or an Associate of Science degree. Students may also earn an Associate of Applied Science degree and certificates. See pages 43-101 for specific degree plans. To graduate, students must complete a minimum of 18 credit hours at CCCC and satisfy all other degree requirements. Non-traditional and developmental course credit does not meet this residency requirement.

Candidates for an associate's degree should submit an application for graduation no later than the deadline established for that semester.

SUMMER GRADUATES

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

CERTIFICATE PROGRAMS

Students obtaining certificates containing 18 hours or less must complete course work in residence at CCCC. Petitions for transfer credits into certificate programs containing 18 hours or less may be made to the division dean through the degree plan coordinator. Certificates will be awarded upon completion of program requirements. Students earning certificates may participate in commencement ceremonies.

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 & CONTRACTS

Incomplete contracts must be agreed to and signed by the involved student, professor and appropriate division dean at the close of the term in order for a grade of "I" to be assigned. The contract must define the exact requirements the student is to fulfill in order to receive a performance grade. Requirements of incomplete contracts must be completed as specified in the contract, but by no later than the end of the following 16-week term. The contract may state that if the work is not completed as specified, the grade will be changed to a performance grade based on the quality and amount of work completed. If no performance grade is specified on the contract and the contract is not fulfilled, an "I" will remain on the permanent record.

NON-TRADITIONAL COLLEGE CREDIT (NTCC)

Various credit options enable persons who have acquired knowledge and skills in non-traditional ways to demonstrate academic achievement. Credit may be given for college-level experience as demonstrated by acceptable test results regardless of the means by which the knowledge was acquired, except for college credit that has been previously granted. Students may also receive credit for some previous military training. Please note that a fee for test administration and transcript recording will be assessed. Without special permission from the Vice President for Instruction, no more than 18 hours of NTCC may be counted toward a degree.

For additional information regarding College-Level Examination Program (CLEP) examinations, departmental examinations, advanced placement tests, the Customized Articulation Program, 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.

GLOBAL EDGE TECH PREP

Refer to pages 16 and 41.

ADVANCED PLACEMENT TESTS OF THE COLLEGE BOARD (AP)

Beginning freshmen who have received college-level training in secondary schools and who present scores of three, four or five on the appropriate Advanced Placement Examination will be granted, on request, placement and credit for comparable courses at the college following the completion of six semester hours at the college. For more information contact the Director of Testing.

ARMED FORCES CREDIT

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

COLLEGE-LEVEL EXAMINATION PROGRAM (CLEP)

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

1. CLEP credit shall be recorded on transcripts so as to be clearly recognized as credit earned by examination (CR) rather than through residency course work.
2. CLEP credits shall not be granted if they duplicate credits for courses already completed.
3. Credit is awarded for CLEP Subject Examination scores at or above the 70th percentile. Official score reports should be sent to the director of testing.
4. A \$10 non-refundable fee will be charged for each CLEP examination in addition to the required fee for the CLEP examination.

CREDIT BY EXAM (DEPARTMENTAL EXAMS)

Credit for some courses may be granted upon successful completion of a comprehensive examination over the content of the course. A non-refundable fee is charged for each course examination. Students must be

currently or previously enrolled or have earned credit at the college to receive credit by examination. Students may not request credit by examination in courses for which they are currently enrolled. Credit by examination may be attempted only once for any given course. The student must score at or above 70 percent to receive credit for the course. Some credit by examination may require portfolio review.

OUTSIDE AFFILIATIONS

All learning experiences undertaken in affiliation with outside agencies are under the control and supervision of a faculty member or clinical coordinator at 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. Student must pick up an institutional credit by exam/portfolio review form from the director of testing at the Spring Creek Campus.
2. Contact one of the full-time faculty in the discipline for an appointment to review the student's portfolio.
3. The professor will review the portfolio to see if the coursework meets all the course requirements for which the student seeks credit.
4. If the student's portfolio meets or exceeds the competencies, then the professor will complete the credit-by-exam form and will send the student to the Director of Testing.

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

STUDENT RECORDS

PROCEDURE TO INSPECT EDUCATION RECORDS

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

DISCLOSURE OF EDUCATION RECORDS

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 Nov. 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.

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. This request should be submitted during the first 12 days of class of a regular semester, or prior to the census date of the current semester. If no request is filed, directory information will be released upon inquiry. Filed requests are valid until revoked by the student.

Directory information is the only part of a student's record that may be released without the student's prior written permission, except with regard to the law that provides for disclosure without consent.

REPEATING COURSES

Only the grade and credits earned in the most recent course repeated will be used in computing the grade point average and applied toward degree or program requirements. Grades of all courses taken will be recorded on the student's transcript. Otherwise, courses that may be repeated for credit more than one time are specified in the course description.

Veterans should consult the director of financial aid/veterans affairs before repeating any course. Transfer students should check with receiving institutions for 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 current and cumulative grade point average (GPA) are considered in good standing. Students who 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, but they will be notified about their status and encouraged to meet with an adviser and take advantage of the support services available.

ACADEMIC PROBATION

Students who have less than a 2.0 cumulative GPA, but who have 18 or more quality hours at CCCC, will be placed on Academic Probation and notified in writing of their probationary status. Students on Academic Probation will be required to obtain the signature of the adviser for academic action on their advising registration ticket prior to registering for further classes. Students on Academic Probation are also required to submit a mid-semester progress report to the adviser for academic action and encouraged to attend CCCC study skills seminars offered on campus. Students who have registered early and have been subsequently placed on Academic Probation should meet with the adviser for academic action prior to the end of the add/drop period.

Continued Enrollment on Probation

Students whose status is either probation or suspension, but who have a signed Petition for Admission (for suspension students) to continue their enrollment, and have earned a current 2.0 GPA, but still have a cumulative GPA that is less than 2.0, have continued enrollment status. These students will have a hold placed on their record and are required to meet with the adviser for academic action in order to enroll. A mid-semester progress report and enrollment stipulations may be required as determined in consultation with the adviser.

ACADEMIC SUSPENSION

Academic Suspension occurs when the student whose previous status was Academic Probation fails to earn a current GPA of 2.0 with a cumulative GPA below 2.0. Students in this category can be suspended from the college for one long semester. Students on Academic Suspension who petition for re-enrollment are required to meet with the adviser for academic action to develop specific plans to raise their grade point average. Students who registered early and are subsequently placed on Academic Suspension may be administratively withdrawn from CCCC unless they petition for continued enrollment.

Readmission After a Period of Suspension

After a period of Academic Suspension, a student may be readmitted with Academic Probation status. Before readmission under probationary status, the suspended student must meet with the adviser for students on academic action and complete a Petition for Admission. A mid-semester progress report and other enrollment stipulations may be required as determined in consultation with the adviser. The meeting with the adviser is designed to assist the student in formulating an individualized plan for success in raising the student's GPA.

ACADEMIC DISMISSAL

Students who were previously on Academic Suspension, but who did not earn a current 2.0, will automatically be dismissed from the college for a period of no less than one long semester. One long semester is defined as Fall, Spring, Summer I and Summer II, or Summer III.

Readmission After a Period of Academic Dismissal

Students must meet with the Academic Action Coordinator, complete a Petition for Admission, and meet other re-enrollment requirements based on the student's individual situation as determined in consultation with the adviser.

STUDENTS ON PROBATION, SUSPENSION, OR DISMISSAL FROM OTHER COLLEGES

Students must meet with the Academic Action Coordinator and complete a Petition for Admission. At the time of the advising session, the student must have an official transcript on file with CCCC from the most recent college attended. The student may be required to meet other enrollment stipulations as determined in consultation with the adviser.

RIGHT OF APPEAL

A student placed on academic dismissal has the right to appeal to the Academic Progress Task Force.

STUDENTS ON ACADEMIC ACTION PROGRAM (SOAAP)

SOAAP refers to all students on academic action status as outlined above. To this end, students are encouraged to develop an individualized plan for success and achieve and maintain a 2.0 minimum cumulative GPA. The Academic Action Coordinator assists students in mapping out their plans to meet the academic standards set by CCCC. Students are removed from academic action status when their cumulative GPA is 2.0 or greater.

** Quality hours refer to the number of college-level hours a student completes at CCCC, excluding developmental, non-traditional, and transfer work. These quality hours are used in calculating a student's GPA at CCCC.*

STUDENT CLASSIFICATIONS

- **Freshman:** A student who has successfully completed fewer than 30 quality hours
 - **Sophomore:** A student who has successfully completed 30 or more quality hours
 - **Full-time:** A student enrolled for 12 credit hours or more in a regular semester or six credit hours or more in a short summer session
 - **Part-time:** A student enrolled for 11 credit hours or less in a regular semester or three credit hours or less in a five-week summer session.
- Classification varies for courses meeting on alternative or accelerated schedules.

STUDENT LOAD

A full-time student load is a minimum of 12 credit hours per 16-week semester. Students taking 11 credit hours or less per 16-week semester are classified as part-time students. Full-time status during the summer sessions or accelerated sessions may vary. For clarification, see “Student Classifications” or the registrar.

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

Students may, with special permission of a full-time academic adviser, enroll for more than 18 credit hours during a regular session and seven hours in a summer session. Permission will not be granted unless the student has a 3.0 cumulative grade point average and plans to carry no more than 21 hours during a regular semester or nine hours during a summer session. Students are limited to one course (normally three credit hours) during the Wintermester or Maymester sessions.

TRANSCRIPTS

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

VETERANS’ CERTIFICATION

Veterans wishing to enroll and receive benefits should contact the director of financial aid/veterans affairs. In order to receive benefits, veterans must maintain satisfactory progress as stipulated by the Veterans Administration and college policy. All prior credit earned through civilian or military education must be submitted to the degree plan coordinator for transfer evaluation.

WITHDRAWAL FROM THE COLLEGE

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

Students who are enrolled in a developmental course for TASP purposes may not drop/withdraw from their only developmental course unless they completely withdraw from all college courses. A student who discontinues class attendance and does not officially withdraw will receive a performance grade for the course. Students who do not attend/participate in TASP required remediation may be administratively withdrawn from all courses with no refund.



STUDENT DEVELOPMENT



ACADEMIC ADVISING

Academic advising, an integral component of each student's success at CCC, 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 CCC.

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

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

- Assistance for undecided and new students in selecting a field of study;
- Facts about classes and programs;
- Assistance with registration as a CCC student and adjustment to college;
- Information about academic requirements;
- A source of information about procedures involving dropping a class, appealing grades, registration, etc.;
- A place to start when seeking to establish a degree plan; and
- Transfer information for those planning to attend a four-year institution (Transfer Lab).

ACADEMIC & PERSONAL ENHANCEMENT

(Formerly Human Development)

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

ACCESS

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

Tutoring is also available for all students at the college.

A licensed educational diagnostician conducts psychoeducational evaluations for students requesting them. Results are evaluated and recommendations are made.

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

ARTICULATION AND TRANSFER

A transfer lab is available to students on all three campuses located in the Student Development Center. The transfer lab has materials that help students transfer courses and/or programs from CCCC to four-year institutions. Check the transfer lab for up-to-date information on other institutions.

- Students are encouraged to meet with an adviser.
- Four-year institutions determine courses which will be required for degrees. Check the appropriate catalog for current degree plans.
- Some courses are designed for job entry and career preparation and may not meet degree requirements.
- Courses in developmental education and some courses in human development are designed for individual skill and personal improvement and generally will not transfer to a four-year institution.
- Check the specific college catalog for admission, housing, scholarship, and financial aid deadlines.

When duplicating (repeating) a course at CCCC, check with the receiving institution on their policy for accepting course duplications.

RESOLUTION OF TRANSFER DISPUTES

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

Resolution of Transfer Disputes for Lower-Division Courses

The following procedures shall be followed by public institutions of higher education in the resolution of credit transfer disputes involving lower-division courses:

1. If an institution of higher education does not accept course credit earned by a student at another institution of higher education, the receiving institution shall give written notice to the student and to the sending institution that transfer of the course credit is denied.
2. The two institutions and the student shall attempt to resolve the transfer of the course credit in accordance with board rules and/or guidelines.
3. If the transfer dispute is not resolved to the satisfaction of the student or the sending institution within 45 days after the date the student received written notice of denial, the institution whose credit is denied for transfer shall notify the Commissioner of the denial.

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

A complete copy of the guide, including definitions, and Transfer Dispute Resolution Forms are available at CCCC from the Director of Articulation and Transfer, 972.881.5757.

GUARANTEE FOR TRANSFER CREDIT

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

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

"NEXT STEP" TRANSFER PROGRAM

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

- List of course equivalences for CCCC and four-year institutions
- Information on transfer of credit
- Directory listing addresses and phone numbers for four-year institutions
- Course and program transfer guides
- Library of catalogs for both out-of-state and Texas colleges and universities
- Degree plans for four-year institutions

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

DUAL OPPORTUNITIES AGREEMENTS

Collin County Community College District/Dallas County Community College District (DCCCD):

Collin County residents may enroll in select technical programs offered by the DCCCD at in-county tuition rates. Likewise, Dallas County residents may enroll in select technical 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.

Collin County Community College District/Grayson County College (GCC):

CCCC and GCC have agreed to offer a select number of programs in a 1+1 arrangement. The 1+1 program allows students to enroll in prerequisite courses at CCCC and transfer to GCC to complete study within selected majors. For more information contact the Registrar's Office.

Collin County Community College District/Richland College Semiconductor Manufacturing Technology

CCCC, Richland College and selected semiconductor technology companies located in Collin and/or Dallas County have completed a partnership agreement to provide education/training in semiconductor manufacturing technology.

The two colleges share curricula, equipment, laboratory facilities, and other resources to provide excellent instructional opportunities for all students enrolled in this program. Course offerings will be structured to allow company employees on flexible work schedules to participate. For further information, contact Engineering Technology at 972.377.1717.

ASSESSMENT AND TESTING SERVICES

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

TASP–TEXAS ACADEMIC SKILLS PROGRAM

The Texas State Education Code requires that all students “...who entered public institutions of higher education in the fall of 1989 and thereafter be tested prior to enrollment. TASP is a test in reading, writing and mathematics that is required of all students taking college-level courses at a public college in Texas. The test fee will be paid by the student. All students seeking teacher certification will be required to take TASP. Performance on TASP will not be used as a condition for admission to CCCC. Students can enroll only in Developmental Education course work without having taken TASP.

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

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

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

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

Students may continue to take and accumulate lower division courses past the 60 hour limit, but will be unable to graduate with a degree until

they have completed the TASP requirements. An alternative method to meet the TASP requirements is defined as follows: If a student has (1) taken a TASP section and failed; (2) enrolled in and completed appropriate developmental course work; (3) taken the TASP a second time and failed; and (4) then attained a grade of “B or better” in an approved course related to the failing area, the student has met the TASP requirement in the failed area. Until TASP requirements are successfully completed, continuous remediation is mandated.

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

NOTE: For specific current information about TASP and CCCC’s testing, contact the director of testing at 972.881.5739. Please note that, in addition to the state test, the college requires new students to be assessed in reading. All students must be assessed or provide proof of pre-requisites prior to enrolling in an English or mathematics course. All students who wish to enroll in freshman English courses must be assessed for proper course placement. Developmental classes and tutorial assistance are available for students who need or want this support. Transfer students must provide documentation of TASP status. Documentation may be in the form of official TASP scores reports or official transcripts.

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

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

Passing scores for the TASP are:

- Mathematics 230
- Reading 230
- Writing 220

BASIC SKILLS ASSESSMENT

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

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

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

Computer Science Assessment Policy

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

Developmental Mathematics Assessment Policy

All students enrolling in mathematics courses are required to participate in assessment or show prerequisite proof (a transcript validating that the prerequisite course has been passed within the last three years). A student may be placed in the developmental mathematics sequence (MATH 0300, 0302, 0305, 0310) by scores on COMPASS. A student is allowed to take the assessment twice before the mathematics entry level is established prior to enrollment that semester. If a student decides not to enroll in a mathematics course during the semester of assessment, the student may retain the assessment score for one year, or may reassess prior to the beginning of the semester when enrollment is planned. However, once a student has been placed in the proper course and has enrolled in the developmental mathematics course, the student must continue from the point of entry through MATH 0310 before enrolling in MATH 1324 or 1314. Note: MATH 0305 is the prerequisite for MATH 1332.

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

Developmental Reading Assessment Policy

Students are required to take CCC's reading assessment prior to enrollment. After assessment, students are required to see an academic adviser for course approval. Students who assess into READ 0300 or READ 0305 must enroll in the appropriate reading course. Additional course enrollment is restricted to courses found on the Reading Requirement Exempt List. Students who assess into READ 0310 must enroll in READ 0310 and may enroll in additional courses of their choice.

Students who fail the reading portion of TASP must enroll in the appropriate reading course.

Developmental Writing Assessment Policy

First-time students must take the ENGL 1301 placement exam to determine if ENGL 1301 or a developmental writing course is appropriate. The assessment may be taken twice before final placement is determined. Once placement has been determined and students have enrolled in a developmental writing course (ENGL 0300, 0305, 0315), the developmental writing course and final exam must be passed before the ENGL 1301 placement exam can be retaken.

After successfully completing ENGL 0300 or 0305, students may take the ENGL 1301 placement test. After successfully completing ENGL 0315, students may enroll in ENGL 1301. If a student decides not to enroll in an English course during the semester of assessment, the student may retain this assessment score for one year or may reassess prior to the beginning of the semester when enrollment is planned.

English as a Second language

Students who are interested in taking English as a Second Language (ESL) as a credit course must first take the ESL Assessment. Students who are interested in taking English as a Second Language as a non-credit course must contact the Continuing Education Office at 972.985.3750 for assessment instructions. Students are placed in the appropriate course based on scores earned on the assessment. Please see the current Schedule of Classes for dates and times of the testing session(s).

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

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 CCC faculty
- Correspondence Testing (A fee of \$20 is required for test administration)
- MCAT – Medical College Admissions Test
- MECP – Mobile Electronics Certification Program

CCCC codes for these tests are shown below:

- CLEP (Spring Creek Campus) 1951
- ACT (Central Park Campus) 4046
- ACT (Spring Creek Campus) 4209
- SAT (Central Park Campus) 44-646
- SAT (Spring Creek Campus) 44-702
- TASP (Central Park Campus) 137
- TASP (Spring Creek Campus) 138

Students requiring more information on the above programs should contact the Director of Testing at 972.881.5739.

CAREER SERVICES & COOPERATIVE WORK EXPERIENCE

Career Services & Cooperative Work Experience (CWE) offer a variety of services to enhance the career planning and exploration process. Four 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 many are available to members of the community. There is a nominal charge for community members requesting career assessments with a professional interpretation.

STEP ONE: SELF ASSESSMENT

What are your work values, interests, abilities and how do they relate to careers? What school subjects appeal to you? How do you spend your free time? What are your hobbies? What did you enjoy about your previous

jobs? What skills do you possess and what careers use these skills? How do all of the above relate to career choices?

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

- Career Assessments: Myers-Briggs, COPES, COPS
- “Discover” Computerized Career Guidance Program.
- Focus II (Computerized Summary of Career Planning Ideas)

These assessments are available in Career Services and CWE by appointment. Professional interpretations are available, by appointment, once the assessments are complete.

STEP TWO: KNOW THE CAREER FIELDS

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

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

STEP THREE: KNOW 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.

Employment assistance provided for currently enrolled students includes the following:

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 minimum wage. The minimum wage effective September 1, 1997 is \$5.15 per hour. Student workers are classified as Student Assistants or Federal Work Study students. Federal Work Study students must apply and qualify for financial aid. Students qualifying for Federal Work Study are also eligible to participate in the America Reads program.

Off-Campus Employment

Career Services and CWE provide job listings for off-campus positions ranging from entry level to professional. Both part-time and full-time positions are available. An employment database service has been designed especially for students.

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

STEP FOUR: PREPARE AND MARKET YOURSELF

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

Also available are handouts on:

- Cover letters
- Interviewing
- Resumes
- After the interview

Technical Career Advisor

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

Visit our web site under “Student Development” at www.ccccd.edu.

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 CCCC. 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 CCCC with 45 hours in residence and must have completed the degree within a five-year time span. All course work for the certificate must have also been completed at CCCC within a five-year time span.
3. Graduates must be employed full-time in an area directly related to the area of program concentration as certified by the appropriate division dean.
4. Employment must commence within six months of graduation or certification.
5. The employer must certify, in writing, that the employee is lacking entry-level skills identified by CCCC as program exit competencies and must specify the areas of deficiency within 90 days of the graduate’s initial employment.
6. The employer, graduate, division dean, job placement counselor, and appropriate faculty member will develop a written educational plan for retraining.
7. Retraining will be limited to nine credit hours related to the identified skill deficiency and to those classes regularly scheduled during the period covered by the retraining plan.

8. All retraining must be completed within a calendar year from the time the educational plan is agreed upon.
9. The graduate and/or employer is responsible for the cost of books, fees and other course-related expenses.
10. The guarantee does not imply that the graduate will pass any licensing or qualifying examination for a particular career.
11. The program can be initiated by employer or graduate by a written request to the vice president of instruction within 90 days of the graduate's initial employment. For more information, please contact the director of career services.

COOPERATIVE WORK EXPERIENCE

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

CWE is designed to serve students in two-year technical fields as well as transfer-oriented students desiring academic co-ops. Most positions are paid, and there are also unpaid opportunities in academic co-op fields which require volunteer work to start, such as radio, T.V., and criminal justice. Additionally, service learning opportunities are available in non-paid, volunteer community service projects. CWE has open enrollment every month based upon when a student accepts a position. Students must obtain permission from the CWE office for these courses, and some require a pre-requisite or instructor permission.

To be eligible, students must be working towards a degree or certificate, must have a minimum 2.5 GPA, must be able to work at least 20 hours per week, and must be concurrently enrolled in at least one three-hour academic course at CCCC.

A student who is presently employed may use a current job for the CWE course if it relates to his/her ultimate career goal. Students who are seeking related work experience may utilize the CWE job recruitment service to obtain a job that can be used to receive college credit. Working a minimum of 20 hours per week for a 16-week semester, along with 16 hours of classroom seminars, allows a student to earn three credit hours towards a program. Additional options for other than three-hour credit work experiences may be available within certain guidelines.

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 issues which include:

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

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, .972.377.1771.

PROMISE PROGRAM

The PROMISE Program is available to assist displaced homemakers/single parents in coping with major life transitions due to separation, divorce, widowhood, spousal disability or single parenthood. The PROMISE Program provides comprehensive support services aimed at helping the displaced homemaker/single parent to re-enter the work force and to contribute fully to the well-being of their family and community.

The program provides services that include:

- Vocational training and educational advancement
- Vocational assessment and career counseling
- Personal counseling
- Life skills workshops
- Educational assessment
- Information and referral
- Job readiness and re-employment preparation
- Support network and support groups

Please call the PROMISE Program for more information at 972.548.6851 or metro 972.881.5790, ext. 6851.

FINANCIAL AID

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

A primary purpose of the college's financial aid program is to provide assistance for students who otherwise might find it difficult or impossible to attend college. All students are encouraged to apply for financial aid. CCCC does not award federal grants, loans, or work-study to students with a bachelor's degree. Students should not withdraw from college for financial reasons without first having consulted the Director of Financial Aid/Veterans Affairs. All financial aid students must familiarize themselves with the standards of academic progress. For more information call CPC/972.548.6760, SCC/972.881.5760, or PRC/972.377.1760.

FINANCIAL AID PROGRAMS - FEDERAL ASSISTANCE

Federal Pell Grant

Eligibility for the Pell Grant is based on the financial strength of the student and/or the student's family as well as the student's enrollment status (range: \$400 – \$3,125/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 consideration is given to students demonstrating the greatest amount of financial need (range: \$200 – \$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 work to earn the amount that is designated in their award package (range: \$1,318 – \$3,300/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 at least a half-time student. Eligibility is based on financial need; but for periods of enrollment beginning on or after October 1, 1992, students can get a Stafford Loan regardless of need; that is, regardless of their family's income. Variable interest rates are set each fiscal year but not higher than 8.25 percent, and current interest rates are 7.66. Students can borrow \$2,625 for the first year of completion in their program of study. During the second year, the student may borrow \$3,500. The maximum amount students may borrow each academic year depends on their eligibility, dependency status, year in school, previous student loans they have borrowed and their hourly enrollment for the year.

Federal PLUS Loans

Federal PLUS Loans are for parents who want to borrow money to help pay for their children's education. The loan provides additional funds for education expenses. Like Federal Stafford Loans, PLUS Loans are made by 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 education less resources and aid.

FINANCIAL AID PROGRAMS - STATE ASSISTANCE

Texas Public Education Grant (TPEG)

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

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

The TPE-SSIG is a state program that bases grants on the financial need of the applicant. Eligibility is determined by the college and is based on financial need and availability of funds (range: \$100 – \$1,000/year). See the Financial Aid Office for more information.

ADDITIONAL FINANCIAL AID INFORMATION

Many of the financial aid programs listed are under constant state and federal review and are subject to change. See the Student Financial Aid Handbook for additional information.

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 most high school counseling offices. Financial aid priority deadlines are as follows:

- Fall semester – June 1
- Spring semester – November 1
- Summer terms – March 1

INSTITUTIONAL POLICY OF SATISFACTORY ACADEMIC PROGRESS FOR FINANCIAL AID

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

Grade Point Average (GPA) Requirements

1. A student must maintain a 2.0 GPA for each semester or the combined summer sessions for which an award is approved.
2. A transfer student from a college outside of the district must have a cumulative 2.0 GPA as evidenced by an official academic transcript.
3. All transfer students or new applicants with less than a 2.0 GPA will be allowed to be awarded financial aid under the following conditions listed as follows:

- a. Student must complete 12 hours and maintain a 2.0 GPA of the last 12 hours at CCCC before financial aid is granted.
- b. Student will be granted one semester on probation if Section 3a above is fulfilled.

Completion Requirements

1. A student enrolled full-time (12 credit hours or more) must complete a minimum of nine credit hours for any semester or the combined summer sessions for which funding is received.
2. A student enrolled in six to eleven credit hours must complete a minimum of six credit hours for any semester or the combined summer sessions for which funding is received.
3. A student who is enrolled in one to five credit hours in any semester or combined summer sessions must complete all attempted credit hours.
4. An "IP" or "T" in developmental courses will not satisfy the completion requirements.
5. Developmental courses will be included to determine the financial aid student's GPA and completion requirements.
6. A student who fails all of his/her courses within a semester or term or withdraws from all classes will be immediately suspended from financial aid the next semester or term enrolled at CCCC.

Failure to Meet the Standards of Academic Progress

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

1. Following the first semester in which the above standards of academic progress are not met, the student will be placed on probation and will be notified of that status.
2. If the student's current GPA is at least a 2.0, but his/her cumulative GPA is below a 2.0, aid will be awarded on an extended probationary status.
3. The student who fails to meet the standards of academic progress during the semester of attendance while on probation will be placed on suspension and denied further funding.
4. During the first period of suspension, the student must enroll at least half-time for one semester at CCCC, pay the expenses related to that enrollment, and maintain the standards of academic progress to re-establish eligibility for financial aid.
5. If failure to meet satisfactory progress results in a second suspension from financial aid, the student must enroll at least half-time for the equivalent of two semesters at CCCC, pay the expenses related to that enrollment, and maintain the standards of academic progress to re-establish eligibility for financial aid.
6. Following any period of suspension, the student will again be eligible for funding on a probationary basis for one semester or combined summer sessions.
7. If failure to meet satisfactory progress results in a third suspension from financial aid, no additional aid will be awarded. Exceptions may be petitioned to the Vice President of Student Development.

Notification

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

Incremental Measurement of Progress

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

Maximum Time Period for Completing Educational Objectives

1. Students receiving financial aid funds will be expected to complete their educational objective or course of study within a reasonable period of time. THE MAXIMUM CREDIT HOUR LIMIT AT CCCC IS 90 CREDIT HOURS (including all transfer credit), excluding developmental education courses.
2. Funding beyond the maximum credit hour limit may be approved by the Financial Aid Task Force and must be based on mitigating circumstances.
3. If a student has completed a bachelor's degree, the student will be eligible to apply for Texas Public Educational Grant Funds.

Appeal Process

A student who has been denied financial aid because of a failure to meet any of the criteria of the standards of satisfactory academic progress may petition the Financial Aid Appeals Task Force by writing a letter explaining any mitigating circumstances. The Financial Aid Appeals Task Force will evaluate the petition and decide whether to award the student financial aid. The following provisions must be included in the appeal letter:

1. Clear statement of any mitigating circumstances (explain why you should be granted an exemption from the 2.0 GPA and/or 90 credit hour limit).
2. Official academic transcripts from all colleges, universities, and/or trade schools attended are required. These must be provided even if you withdrew from all classes.
3. Documentation to provide support of your appeal (for example, verification from your doctor, copy of death certificate, etc.) if applicable.
4. Letters from people to support your request (for example, instructors, counselors).
5. Information requested from Items 1 and 2 must be submitted before the task force will review your appeal. Items 3 and 4 are optional. The student's appeal must be submitted to the Financial Aid Office no later than the Friday before the last Wednesday of the month. The task force will meet the last working Wednesday of each month. The Financial Aid Office will contact students of the task force's decision in writing within seven working days of the scheduled meeting.

Effects on Funding

1. Certain courses not considered for funding are:
 - a. Courses taken as an audit, and
 - b. Courses taken outside the degree plan; however, developmental courses, if required as a prerequisite to enable a student to successfully complete a student's educational goal or TASP requirements, may be considered for funding.
2. Credit hours earned by a placement test will not be considered for funding.
3. All courses for which an "I," "IP," "F" or "W" grade is received will not be treated as completed courses.
4. Repeated courses may be considered for funding if the student received a passing grade of "D" or better when the course was first taken.
5. Financial aid may be paid for developmental courses that are prerequisites for credit courses or are mandated TASP requirements.
6. A student must assess into developmental courses to be considered for financial aid funds.

FINANCIAL AID PROGRAMS - SCHOLARSHIPS

Scholarships at CCCC are generally awarded on the basis of academic achievement, need, merit, special population, or a combination of each. Scholarships are designed to encourage and assist students in pursuing academic excellence, merit, and leadership roles. All students are encouraged to apply. CCCC Foundation scholarships are only available to currently enrolled CCCC students. For more information, call the Foundation office, 972.548.6608.

CCCC Foundation Scholarships

Botsford/J.C. Penney, Christ United Methodist Church Men's Club, Collin County Bar Association, Jack Hatchell/City of Plano, Ann Eliza and Clyde Miller, Dr. John H. Anthony Endowment, Dr. Walter L. Pike Memorial, Dr. Richard H. Sewell Memorial, Gladys Young Music, Patty Burton Memorial, Special Population: Disabled/First Generation Student/Single Parent/Displaced Homemaker, Trustees Merit-Based for Continuing Student, Trustees Merit-Based for First Year Student, Jackie Dooley Memorial Scholarship for Learning Disabled Students, Frito-Lay Endowment, HCA Medical Center of Plano Endowment, Louise M. King, Rodeo Club, MCI Technologies Scholarship, EDS Business Excellence, GNB Technologies Scholarship, and E.L. Roy-H.P. Cohick

CCCC 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.

CCCC Departmental Scholarships

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

FINANCIAL AID PROGRAMS - OTHER

Waivers

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

Financial Aid Waivers

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

Admissions Waivers

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

Veterans Educational Benefits

CCCC is fully approved for training of veterans under the provision of the G.I. Bill (Public Law 346,550,16 and 89-358). Veterans and dependents of veterans should apply to the Financial Aid/Veterans Affairs Office at least six weeks prior to registration, if possible. All prior credit earned through civilian or military education must be submitted to the degree plan coordinator for transfer evaluation. Veterans must maintain satisfactory academic progress. Students who make unsatisfactory academic progress will be reported to the Veterans Regional Office as being on suspension at the end of the second consecutive semester when the cumulative GPA remains below 2.0. Developmental courses will be included to determine student cumulative GPA. 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 the CCCC Veterans Office complete the certification.

A grade of "D" or better received at CCCC or any other college is a passing grade and may not be repeated for benefits. Courses with a grade of "F" may be repeated, with benefits, one time, then if taken a third time the student must contact the CCCC Veterans Office upon successful

completion, and the certification will be sent. A student receiving benefits is required to maintain satisfactory academic progress (2.0), which includes developmental courses.

HEALTH SERVICES

The college is dedicated to the total well-being of its students. Health fairs, alcohol and drug awareness programs, aerobic and other fitness courses are geared toward student wellness. Although the college does not employ a nurse or physician, first aid kits are available at the Information Center, Fitness Center, Physical Plant, Student Activities Office, and division offices.

IMMUNIZATIONS

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

NETWORKS

A new program, NETWORKS (Non-Traditional Employment in Technology Working to Overcome Resistance through Knowledge and Support), provides financial and professional assistance for women enrolled in the college's engineering technology programs. The program provides textbook reimbursement and dependent care, as well as avenues for career development, including job shadowing, mentoring opportunities, and referrals to career planning and guidance services. For additional information, call NETWORKS at 972.377.1671.

STUDENT ACTIVITIES

PROGRAMS

Active involvement in your education, both in and outside the classroom, can greatly increase the likelihood of you having a successful and rewarding college career. Therefore, all students are encouraged to participate in activities to foster their social, cultural, civic, and educational growth.

The Student Activities Office offers a wide variety of programs including guest speakers, field trips, leadership training, entertainers and social, cultural and civic events. In conjunction with CCCC's laboratory component, many student activities programs integrate classroom material.

A variety of registered student clubs and organizations offer opportunities for involvement. A complete listing of clubs is available from the Student Activities Office. You are encouraged to join these organizations or form new ones to meet your needs. Student Activities staff members are available to help you become involved in college programs and activities. For more information, contact the Student Activities Office: CPC/D109, 972.548.6788; PRC/A185, 972.377.1788; and SCC/F129, 972.881.5788.

INVOLVEMENT IN INSTITUTIONAL GOVERNANCE

You are encouraged to become involved with institutional governance by expressing your thoughts and feelings about college policies, procedures and activities. The president, vice presidents and all college employees are interested in your ideas, opinions, and suggestions.

Through participation in Student Advisory Council, representation on college task forces, dinner with the President, and personal conversations with faculty and staff, you are encouraged to communicate your needs, desires, and proposals for change.

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

See the current *CCCC Student Handbook* for detailed information on how to get involved in student activities, student clubs, and institutional governance.

STUDENT CODE OF CONDUCT

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

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

1. They shall adhere to college policies and municipal, county, state and federal laws; and
2. They shall not interfere with or disrupt the orderly educational processes of the college.

Students are entitled to only those immunities or privileges by law as enjoyed by other citizens. For more information, see the *CCCC Student Handbook* or contact the Vice President of Student Development.

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/TDD) for information about CCCC's facilities and specialized services.

TUTORING

Individual and small group 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 the ACCESS Office (CPC/A108, 972.548.6770; PRC/F135, 972.377.1770; SCC/G200, 972.881.5898).

EDUCATIONAL SERVICES



BOOKSTORE

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

TEXTBOOK AND LANGUAGE TAPE REFUNDS

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

1. Books or language tapes are returnable during the first 10 calendar days of the fall and spring semesters and the first five days of the summer semesters.
2. Students must have their original cash register receipt to receive a refund. No cash refunds given on credit card sales.
3. Students should not write in new books until they are certain they have the correct books. New books that are soiled, damaged, or have been written in will not receive a full refund.
4. Books and cassette tapes in shrink wrap (plastic or vinyl packaging) must be returned unopened in the original package. Books cannot be accepted if the shrink wrap has been removed.
5. Defective books, missing pages, etc., purchased from CCCC bookstores will be replaced at no charge during the semester in which they were purchased.

SOFTWARE RETURNS

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

TEXTBOOK SHORTAGES

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

TEXTBOOK BUYBACK

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

1. Books must be in clean, salable condition.
2. Books must be required for use by the college during the next semester.
3. Books must be current editions.
4. Workbooks, lab manuals, study guides, mass-market paperbacks, books with torn covers, excessive markings and water damage, books with perforated pages, and books containing diskettes cannot be bought back.
5. Books cannot be bought back if the store is overstocked or if needs for the following semester have been filled.

The faculty, not the bookstore, decides whether each textbook will be used again. Unless an instructor tells the bookstore he will use that title again, the bookstore must assume it will not be used. Books falling into this category can be bought from students only at used wholesale prices. Old editions have no value and cannot be resold even to wholesalers. Some courses at CCCC are not taught every semester and students may wish to sell their books when that course is offered again, provided the faculty member requires the same books.

CHECK CASHING

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

CHILD DEVELOPMENT CENTERS

CCCC provides Child Development Centers at the Spring Creek and Central Park campuses. The SCC center enrolls children in full-day programs. The center at CPC offers more flexibility with enrollment, offering partial week and full-day options to fit student schedules. Both centers serve as a laboratory site for the Child Development Department. The programs are open to children of students, faculty/staff and to the community as spaces are available.

The children's program is designed to promote physical, social, emotional and cognitive development in a nurturing and supportive environment. Daily activities are based on individual children's needs and interests.

For more information, please call the following numbers: CPC 972.548.6852; SCC 972.881.5945.

CONTINUING EDUCATION

Collin County Community College is dedicated to presenting dynamic and flexible educational programs to the community throughout our geographical area. The college strives to make programs readily accessible and bring learning opportunities to the public as conveniently and economically as possible.

Learning goes beyond initial career preparation, traditional concepts of full-time study and program degree completion and encourages education renewal. CCCC provides learning opportunities for adults of all ages to develop their personal and professional potential and upgrade job-related skills.

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

- Addressing adults' career needs by assisting them to cope with the explosion of new information and techniques, work toward job advancement, or move into a new career.
- Providing job-specific customized training for use by business and industry with curricula relevant to needs of the local economy.

- Contributing to the growth and development of local business and industry through economic development activities on local, state, and national levels.
- Responding to the non-academic or extra-curricular interests and needs of adults by providing a sufficient number of personal development courses.
- Facilitating the interaction between the college and the community.

Each of these specific purposes within the Continuing Education Division relates to the purpose of promoting the philosophy of "lifelong learning" at CCCC. CCCC's flexible continuing education program offers courses, programs and conferences geared to professional development. Course material is adapted to the needs of the particular groups of participants.

CONTINUING EDUCATION COURSES

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

For more information on how the Continuing Education Division can be your connection to lifelong learning, please call 972.985.3750 in Plano or 972.548.6790 in McKinney.

DEVELOPMENTAL EDUCATION

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

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

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

EMERGENCY PROCEDURES

Safety and security is a concern for all members of the college community including students, college employees and visitors. Possession of firearms or other lethal weapons on campus or at college-sponsored events is illegal, except for commissioned police officers as prescribed by law. See the Student Code of Conduct in the current *CCCC 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, CCCC forbids the unlawful manufacture, distribution, sale, possession or use of illegal drugs, alcoholic beverages and tobacco products on campus or at college sponsored events. For more information, refer to the current *CCCC Student Handbook*, or contact the Vice President of Student Development, Director of Counseling, or the Director of Human Resources.

EMERGENCY CLOSING OF THE COLLEGE

If classes have been cancelled, local radio and television stations will make the announcement. A decision to cancel classes will usually be made by 3 p.m. for evening classes and by 6 a.m. for day classes.

REPORTING EMERGENCIES

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

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

EXPERIENTIAL LEARNING LABS

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

BEHAVIORAL SCIENCES LABORATORY

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

COOPERATIVE WORK EXPERIENCE

See pages 29 – 31.

LEARNING COMMUNITIES

Learning communities allow students to complete general education courses through the pairing of two courses. These courses are team-designed and center around a theme that promotes curricular coherence. They encourage an understanding of complex issues that cross discipline boundaries. In these communities faculty work together to actively involve students in the learning process and provide opportunities for interaction among students and between students and faculty members.

COMPUTER WRITING CLASSROOMS

Several sections of English 1301 and 1302 are taught in the computer classrooms located on the second floor of the Spring Creek Campus LRC, the second floor of the Central Park Campus and the second floor of the Preston Ridge Campus. Students in these classes use software including WordPerfect™, Internet™, Netscape™, Aspects™, Dialogue Notebook, Correct Grammar™, and CD-Roms.

MATH LAB

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

STUDENT MEDIA WORKSHOP

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

WRITING CENTERS

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

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

FITNESS CENTERS

A major emphasis of the Physical Education and Dance department at CCCC 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, and nine lighted tennis courts.

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

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

INTERCOLLEGIATE ATHLETICS

The college offers intercollegiate athletic programs in men's basketball, baseball, and tennis, and in women's basketball, volleyball, tennis, and softball. These teams are affiliated with the National Junior College Athletic Association (NJCAA) and participate in regional events which may lead to national competition. The college also sponsors a men's and women's cycling program. To participate in intercollegiate athletic programs at CCCC, students should contact the Athletic Director at 972.881.5888 for more information.

INTERDISCIPLINARY HONORS PROGRAM

The Honors Program at CCCC is designed to provide a challenging learning experience for students with advanced academic skills. In small classes (maximum 18 students) advanced and highly motivated students engage in discussion, research and creative projects geared to their special abilities and commitment to learning. In an honors class of thoughtful and communicative participants, interaction among students is fundamental. Among other benefits to students are an honors course designation on the transcript and possible qualification for honors scholarships.

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

Inquiries should be directed to the chair of the Honors Task Force at 972.881.5803 or the Academic Advising Center at 972.881.5778.

INTERNATIONAL STUDIES PROGRAM

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

COLIMA-TO-PLANO EXCHANGE

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

DEAF STUDIES IN PARIS

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

INTERNATIONAL INTERNSHIPS

From time to time the college may offer students opportunities to earn credit by working abroad in fields such as photography or childcare. Interested students should inquire at the office of the appropriate division dean.

INTERNATIONAL MARINE BIOLOGY PROGRAM

An increasing awareness of the global importance of the ocean environment has led to the establishment of this program, which features a one-week field trip to a selected marine habitat. Students earn four credits for enrolling in Marine Biology (BIOL 1470) and for participating in its field trip that emphasizes reef ecology and the biology of reef organisms.

INTERNATIONAL STUDIES IN ART

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

MARBURG SCHOLARSHIP PROGRAM

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

MAYMESTER IN BELIZE/CENTRAL AMERICA

CCCC students study anthropology, sociology or humanities in this on-site exploration of a multicultural society in transition from colonialism to independence.

MAYMESTER IN PRAGUE

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

MONTH-IN-PARIS PROGRAM

This program offers a combination of study and travel in France for students interested in the French language and civilization. Students live and study in Paris during the month of July and earn seven college-level credits. Offered biennially since 1987, the program requires no previous language training.

PHOTOGRAPHY IN MEXICO

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

SEMESTER IN MEXICO

Students admitted to this fall semester program study Spanish, Mexican civilization, and international business and live with a Mexican host family in tropical Colima, Mexico. Prerequisite: one year of college Spanish or the equivalent.

STUDENT EXCHANGE IN QUEBEC, CANADA

CCCC students pay CCCC tuition and study for a semester or a year at Laval University, one of the oldest and most respected universities in French Canada.

SUMMER AUSTRIAN PROGRAM

The Austrian program offers students three hours credit for a course in humanities focusing on Austrian music, society, and culture. Participants attend live performances and reside in Vienna and Salzburg, the most musical of Austrian cities.

INTRAMURALS

The intramural sports program includes volleyball, basketball, flag football, softball, soccer, bowling, golf, racquetball, and tennis. These are an integral part of the total physical education program at CCCC. For information, contact the Director of Intramurals at 972.881.5848 or 972.548.6891.

LEARNING RESOURCE CENTERS (LRC)

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

ALTERNATIVE LEARNING CENTERS

The Alternative Learning Centers provide alternatives to traditional classroom learning and instruction through the innovative use of technology. The ALCs consist of 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

CCCC offers a variety of credit courses through instructional cable television, two-way interactive compressed video between the three campuses, Internet courses, and video check-out courses from the Alternative Learning Center (ALC). Registration for these courses is during regular registration, and students are required to attend an orientation session for most distance learning courses taken.

Courses may apply toward associate degree requirements; many fit into certificate program requirements, and the majority fulfill requirements for BA and BS degrees. Consult the current *Schedule of Classes* for available distance learning courses.

Distance Learning provides credit courses through instructional television and video. Courses may be viewed on Plano Telecable and TCI Cablevision via KDTN TV-2. Video tapes are also available for viewing in the LRC. Students are required to attend an on-campus orientation for each course.

LIBRARIES

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

MEDIA SERVICES

Media Services provides audio/visual equipment and software to classrooms throughout the district. They also coordinate Distance Learning courses and the Student Media Workshop.

STUDENT MEDIA WORKSHOP

The Student Media Workshop provides a video production and editing facility for course-assigned student projects. Two studio-quality cameras are available as well as equipment for special effects and graphics. Computer-generated special effects may be added as well as titles and credits. The workshop enables students to produce professional-quality videos for their classes.

SERVICE LEARNING

Service Learning combines course goals with community needs.

- It is based on a reciprocal relationship in which the service reinforces and strengthens the learning, and the learning reinforces and strengthens the service.
- It is integrated into the students' academic curriculum.
- It provides students with opportunities to use newly acquired skills and knowledge in real-life situations.

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

COLLEGE AND COMMUNITY DEVELOPMENT

The College and Community Development Division supports the entire college by promoting and facilitating delivery of college programs and services to the community. The division serves as an economic resource for the community. The college created the Business and Community Relations Office to assist in reaching out to the community as a part of CCCC's coordinated marketing strategy.

COLLIN COUNTY LAW ENFORCEMENT ACADEMY

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

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

The Public Safety Training Complex is a 10-lane, indoor, computer controlled, and environmentally safe firearms training facility. The facility features an audiovisual classroom, weapons cleaning area, armorer's repair room, equipment rental and ammunition store. 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.

When not being used for law enforcement training courses, the range is also available to the public for firearms training including "concealed carry training" and walk-in rental.

CONTRACT TRAINING

The Contract Training Office responds immediately to the current needs of business and industry by delivering job-specific customized in-house training. This may mean entry-level or a "quick start" training of employees of new and expanding business and industry, re-training of employees for new technological developments, or extension of technical assistance to business and industry in the essential managerial functions of planning, organizing, implementing, and controlling. For further information, call 972.985.3754.

GLOBAL EDGE TECH PREP CONSORTIUM

The Global EDGE (the acronym stands for Economic Development through Global Education) is a Tech Prep consortium that provides leadership and a mechanism to help build a quality workforce and foster economic prosperity through cooperative effort. The consortium is comprised of representatives from business and industry, the public schools of Collin, Hunt, and Rockwall counties, and higher education. It is one of 25 consortia currently operating in Texas under provisions of the federal Carl D. Perkins Vocational and Applied Technology Education Act of 1990.

The Global EDGE consortium is committed to serving a community of lifelong learners by focusing student interest and career preparation on emerging and high-demand occupations. The Global EDGE develops technical and academic programs for delivery to students via articulation agreements between Collin County Community College and area school districts. The college, high schools, and the business community work together to provide courses that are meaningful. Students can earn tuition-free college credits while in high school and won't have to re-take those courses when they enroll in a Tech Prep program at the college.

Tech Prep programs now include: Computer-Aided Drafting and Design, Criminal Justice, Child Development, Office Administration, Management Development, Electronics Technology, and Computer Network Technology. Completing a program allows the student to enter the workforce qualified in a chosen occupation, or better prepared to continue in college with technical education leading to an associate or bachelor's degree. Tech Prep students can get a head start on their future because they're learning skills in their chosen career while still in high school and actually get hands-on training that will help them compete successfully in a highly competitive world.

The Global EDGE Tech Prep consortium helps students to get a jump-start on their future career. For more information, call 972.548.6723 or visit the Global EDGE Office at Central Park Campus.

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 represent area fire departments and 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.

SMALL BUSINESS DEVELOPMENT CENTER

The Small Business Development Center (SBDC), a partnership between the U.S. Small Business Administration and CCCC, 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.



DEGREE PLANS

ASSOCIATE OF ARTS & ASSOCIATE OF SCIENCE

The Associate of Arts and Associate of Science degrees are designated for students planning to transfer credits to a baccalaureate degree program at four-year institutions. The curriculum suggested in this catalog will satisfy the requirements of most four-year institutions. Students must consult the catalog of the institutions to which they wish to transfer. These catalogs should be used by students working with an academic advisor in planning their academic program. The selection of science, math and elective credit courses is often based on the requirements of the specific four-year institution.

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

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

1. Earn a minimum of 60 credit hours (excluding developmental credit).
2. Complete the General Education Core of 45 credit hours.
3. Complete a minimum of 12 credit hours of Electives chosen from the recommended course list or with assistance from an academic advisor
4. Complete the respective AA or AS required course (3 credit hours) for your degree program.
5. Earn a minimum of 18 credit hours in residency at CCCC.
6. Earn a minimum cumulative GPA of 2.0.

CORE CURRICULUM

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

CCCC defines “core curriculum” as those courses that all students are required to successfully complete before receiving an Associate of Arts or Associate of Science degree at CCCC and/or a bachelor’s degree at a four-year institution of higher education. Students should visit with an academic advisor to ensure that they take the correct courses in their field of study.

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

CCCC’s core curriculum of 45 credit hours is as follows:

GENERAL EDUCATION CORE - AA/AS¹

I. COMMUNICATIONS	9 Credit Hours
English	6 Credit Hours
ENGL 1301 and 1302	
Speech	3 Credit Hours
<i>Select one course:</i>	
SPCH 1311 or 1315	

II. HUMANITIES 3 Credit Hours

Select one course:

- ANTH 2351
- or ENGL 2322, 2323, 2327, 2328, 2332, or 2333
- or HUMA 1301
- or PHIL 1301, 1304, 2303, 2306, or 2307
- or FREN 2303 or 2304
- or GERM 2303 or 2304
- or SPAN 2321 or 2322

III. MATHEMATICS 3 Credit Hours

Select one course:

- MATH 1314*, 1316*, 1324, 1325, or 1342*
- (or higher-level course as determined by your field of study)

IV. NATURAL SCIENCES 8 Credit Hours

Select two courses:

- BIOL 1406*, 1407*, 1408, 1409, or 1411*
- or CHEM 1405, 1407, 1411*, or 1412*
- or ENVR 1411*
- or GEOL 1401, 1403*, or 1404
- or PHYS 1401*, 1402*, 1411, 2425*, or 2426*

V. SOCIAL/BEHAVIORAL SCIENCE 3 Credit Hours

Select one course:

- PSYC 2301
- or SOCI 1301

VI. SOCIAL SCIENCE 12 Credit Hours

Legislative Mandate — Students must take each of the following courses:

- GOVT 2301 (TX) and GOVT 2302 (U.S.)
- and HIST 1301 and 1302

VII. VISUAL/PERFORMING ARTS 3 Credit Hours

Select one course:

- ARTS 1301, 1303, or 1304
- or DRAM 1310
- or MUSI 1306 or 2308

VIII. INSTITUTIONAL OPTIONS 4 Credit Hours

Students must select one course in each of the following areas:

- COSC 1300 (or higher-level course as determined by your field of study)
- and Any PHED Activity Course (1 credit hour)

General Education Core - AA/AS	45 Credit Hours
AA/AS Requirement**	3 Credit Hours
Electives	12 Credit Hours Minimum
Total	60 Credit Hours Minimum

NOTES:

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

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 (*).

COOPERATIVE WORK EXPERIENCE (CWE)

Under supervision of the college and the employer, students combine classroom learning with work experience. Credit is earned for specified hours worked, completion of specific learning objectives, and professional development seminar participation. This is an academic course requiring CWE permission to enroll. Students may use CWE placement assistance or seek approval for current career-related employment.

EDUCATION

Suggested curriculum for Elementary (Interdisciplinary Studies) and Secondary Education majors is located in the transfer lab at Spring Creek Campus in G103, Central Park Campus in A108, and Preston Ridge Campus in F135. Completion of the suggested curriculum along with the appropriate General Education Core will qualify students for an associate degree before transferring to a four-year institution. Check with a CCCC academic advisor for information

PRE-PROFESSIONAL PROGRAMS

No college/university awards a “pre” degree. Students are advised to consult with an academic advisor at CCCC to determine the area of concentration providing the most appropriate background (freshman/sophomore courses) for AS degree programs and for selected health science fields.

ASSOCIATE OF APPLIED SCIENCE

The Associate of Applied Science degree (AAS) is awarded upon completion of a prescribed two-year 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.

CERTIFICATE PROGRAMS

CCCC 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.

TRANSFER AGREEMENTS

Transfer agreements have been established allowing graduates with specific Associate of Applied Science degrees to continue their education in a Bachelor of Applied Arts and Sciences degrees at specific four-year universities. For detailed information contact the coordinator of the particular AAS program, Academic Advising, or the Articulation and Transfer Office.

PROGRAM ADVISORY COMMITTEES

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

Theses 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.

The AAS degree is awarded to students who meet the specific degree requirements along with the graduation requirements listed on page 19. The General Education Core and the total number of hours required to graduate with an AAS degree vary. A student must complete the specific degree with assistance from an academic advisor. A minimum of 18 credit hours must be earned in residency at CCCC.

GENERAL EDUCATION CORE - AAS¹

- | | | |
|--|-----------|---|
| I. English: | | 3 credit hours |
| | ENGL 1301 | Composition/Rhetoric I |
| II. Speech Communications: | | 3 credit hours |
| | SPCH 1311 | Fundamentals of Speech Communications |
| or | SPCH 1315 | Public Speaking |
| or | SPCH 1321 | Business and Professional Speaking |
| III. Mathematics: | | 3 credit hours |
| | MATH 1XXX | College-level mathematics course. The math requirements may vary from the core. Check each degree plan. |
| | MATH 2XXX | |
| IV. Computer Literacy: | | 3 credit hours |
| | COSC 1300 | Computer Essentials |
| V. Economics: | | 3 credit hours |
| | ECON 1301 | Introduction to Economics |
| or | ECON 2301 | Principles of Macroeconomics |
| or | ECON 2302 | Principles of Microeconomics |
| VI. Humanities/Fine Arts: | | 3 credit hours |
| | ARTS 1301 | Art Appreciation |
| or | ARTS 1303 | Art History I |
| or | ARTS 1304 | Art History II |
| or | DRAM 1310 | Introduction to Theatre |
| or | HUMA 1301 | Introduction to Humanities |
| or | HUMA 1302 | Cultural Diversity |
| or | MUSI 1306 | Music Appreciation |
| or | MUSI 2308 | Introduction to Music Literature |
| or | PHIL xxxx | Any philosophy course |
| VII. Behavioral Science: | | 3 credit hours |
| | PSYC 2301 | General Psychology |
| or | PSYC 2302 | Applied Psychology |
| VIII. Physical Education and Dance: | | 1 credit hour minimum |
| | PHED/DANC | Any activity course |
| or | PHED 1238 | Concepts of Physical Fitness and Wellness |

General Education Core - AAS 22 Credit Hours Minimum

¹*Child Development, Commercial Music, Computer Network Technology, Dental Hygiene, Environmental Technology, Fire Science, Interpreter Preparation Program/Deaf, Nursing, Physical Therapist Assistant, Respiratory Care, Semiconductor Manufacturing Technology, and Telecommunications Technology programs at CCCC have specific core curriculum requirements. Please refer to the degree plan for details.*

ASSOCIATE OF ARTS DEGREE



ACCOUNTING

The Associate of Arts degree with a concentration in Accounting consists of a 45-credit hour general education core and fifteen credit hours of suggested electives. The program is designed to provide the lower level courses for completing a bachelor's degree at most four-year colleges or universities. This program provides flexibility allowing students to pursue accounting, economics, finance, marketing or management majors at most four-year institutions. Students may enroll in Cooperative Work Experience to gain practical work experience in the career field. The student should consult with a CCCC advisor to ensure that electives are compatible with requirements set by his or her selected four-year institution.

I. General Education Core - AA 45 credit hours

See page 43.

MATH 1324 and PSYC 2301 are recommended.

II. Recommended Electives 15 credit hours

A.	ACCT	2301	Principles of Accounting I*	.....	3
B.	ACCT	2302	Principles of Accounting II*	.....	3
C.	ECON	2301	Principles of Macroeconomics*	.....	3
D.	ECON	2302	Principles of Microeconomics*	.....	3
E.	BUSI	1301	Introduction to Business	.....	3
F.	BUSI	2301	Business Law	.....	3
G.	MATH	1325	Calculus for Business and Economics	.....	3
H.	MATH	1342	Statistics	.....	3

* Required at four-year institutions

ANTHROPOLOGY

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

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

CAREER OPPORTUNITIES

The majority of students selecting anthropology as their concentration at CCCC transfer into a four-year program. There are entry level positions available in Cultural Resource Management firms upon completion of an associate's degree. Anthropology majors at four-year institutions typically

seek careers in teaching the social sciences or research and planning in governmental or corporate settings. An anthropology minor is an excellent choice for students considering careers in business, medicine, law, government, or diplomacy.

I. General Education Core - AA 45 credit hours

See page 43.

II. Recommended Electives 15 credit hours

A.	ANTH	2301	Physical Anthropology	.....3
B.	ANTH	2302	Introduction to Archaeology	.....3
C.	ANTH	2346	General Anthropology	.....3
D.	ANTH	2351	Cultural Anthropology	.....3
E.	ANTH	2389	Academic Co-op Anthropology	.....3
F.	BIOL	1471	Human Anatomy and Physiology Basics	...4
G.	BIOL	2416	Genetics	.....4
H.	GEOG	1302	Cultural Geography	.....3
I.	SOCI	1301	Introduction to Sociology	.....3
J.	SOCI	2319	Minority Studies	.....3

ART

Also see Photography

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

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

CAREER OPPORTUNITIES

Careers in visual arts are varied. Most visible are the practicing, professional visual artists and art teachers. Other career opportunities include work in museums as docents; museum curators; art historians; art restorers; exhibition designers; sales positions in galleries; artists' representatives; art brokers; art therapists; medical illustrators; art administrators and directors of cultural arts programs; color, space or texture consultants; commercial artists; illustration and design of books and advertising; window display; interior design; fabric, wall and floor covering design. Students may enroll in academic co-op through Cooperative Work Experience to obtain practical experience in the career field.

I. General Education Core - AA 45 credit hours

See page 43.

II. Recommended Electives 15 credit hours

A.	ARTS	1301	Art Appreciation	.....3
B.	ARTS	1303	Art History I	.....3
C.	ARTS	1304	Art History II	.....3
D.	ARTS	1311	Design I	.....3
E.	ARTS	1312	Design II	.....3
F.	ARTS	1316	Drawing I	.....3
G.	ARTS	1317	Drawing II	.....3
H.	ARTS	1370	Problems in Contemporary Art	.....3
I.	ARTS	2311	Introduction to Color/Painting	.....3
J.	ARTS	2316	Painting I	.....3
K.	ARTS	2317	Painting II	.....3
L.	ARTS	2323	Life Drawing	.....3
M.	ARTS	2324	Life Drawing II	.....3
N.	ARTS	2326	Sculpture I	.....3
O.	ARTS	2327	Sculpture II	.....3
P.	ARTS	2333	Printmaking I	.....3
Q.	ARTS	2334	Printmaking II	.....3
R.	ARTS	2346	Ceramics I	.....3
S.	ARTS	2347	Ceramics II	.....3
T.	ARTS	2366	Watercolor I	.....3
U.	ARTS	2367	Watercolor II	.....3
V.	ARTS	2371	Portfolio	.....3
W.	ARTS	2389	Academic Co-op Arts	.....3

BUSINESS ADMINISTRATION

The Associate of Arts with a concentration in Business Administration consists of a 45-credit hour general education core and 15 credit hours of suggested electives. The program is designed to provide the lower level courses for completing a bachelor's degree at most four-year colleges or universities. This program provides flexibility allowing students to pursue accounting, economics, finance, marketing, or management majors at most four-year institutions. Students may enroll in Cooperative Work Experience to gain practical work experience in the career field. The student should consult with a CCCC advisor to ensure that electives are compatible with requirements set by his or her selected four-year institution.

I. General Education Core - AA 45 credit hours

See page 43.

MATH 1324 and PSYC 2301 are recommended.

II. Recommended Electives 15 credit hours

A.	ACCT	2301	Principles of Accounting I*	.....3
B.	ACCT	2302	Principles of Accounting II*	.....3
C.	ECON	2301	Principles of Macroeconomics*	.....3
D.	ECON	2302	Principles of Microeconomics*	.....3
E.	BUSI	1301	Introduction to Business	.....3

E.	BUSI	2301	Business Law	.....	3
G.	MATH	1325	Calculus for Business and Economics	.....	3
H.	MATH	1342	Statistics	.....	3

* Required at four-year institutions

CRIMINAL JUSTICE

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

CAREER OPPORTUNITIES

The Criminal Justice program prepares its graduates for entry-level positions in court services and corrections at the local, state, and federal echelons 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. Students planning to transfer to a four-year institution will have a solid foundation upon which to build as they pursue further studies in criminal justice.

Challenging career opportunities await graduates at all levels of government as:

- Investigators
- Corrections Officers
- Victim Services Counselors
- Youth Service and Juvenile Court Officers
- Probation Officers and Parol Officers

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

I. General Education Core - AA 45 credit hours

See page 43.

II. Recommended Electives 15 credit hours

A.	CRIJ	1301	Introduction to Criminal Justice	.....	3
B.	CRIJ	1306	The Courts and Criminal Procedure	.....	3
C.	CRIJ	1307	Crime in America	.....	3
D.	CRIJ	1310	Fundamentals of Criminal Law	.....	3
E.	CRIJ	2313	Correctional Systems & Practices	.....	3
F.	CRIJ	2389	Academic Co-Op Criminal Justice	.....	3
G.	BUSI	1370	Principles of Management	.....	3
H.	PHIL	2306	Ethics	.....	3
I.	PSYC	2301	General Psychology	.....	3
J.	PSYC	2316	Psychology of Personality	.....	3
K.	SOC I	1301	Introduction to Sociology	.....	3
L.	SOC I	1306	Social Problems	.....	3
M.	SOC I	2306	Human Sexuality	.....	3
N.	SOC I	2319	Minority Studies	.....	3
O.	SPCH	1315	Public Speaking	.....	3

DRAMA

See Theatre.

ECONOMICS

The Associate of Arts with a concentration in Economics consists of a 45-credit hour general education core and 15 credit hours of suggested electives. The program is designed to provide the lower level courses for completing a bachelor's degree at most four-year colleges or universities. This program provides flexibility allowing students to pursue accounting, economics, finance, marketing, or management majors at most four-year institutions. Students may enroll in Cooperative Work Experience to gain practical work experience in the career field. The student should consult with a CCCC advisor to ensure that electives are compatible with requirements set by his or her selected four-year institution.

I. General Education Core - AA 45 credit hours

See page 43.

MATH 1324 and PSYC 2301 are recommended.

II. Recommended Electives 15 credit hours

A.	ACCT	2301	Principles of Accounting I*	.....	3
B.	ACCT	2302	Principles of Accounting II*	.....	3
C.	ECON	2301	Principles of Macroeconomics*	.....	3
D.	ECON	2302	Principles of Microeconomics*	.....	3
E.	BUSI	1301	Introduction to Business	.....	3
F.	BUSI	2301	Business Law	.....	3
G.	MATH	1325	Calculus for Business and Economics	.....	3
H.	MATH	1342	Statistics	.....	3

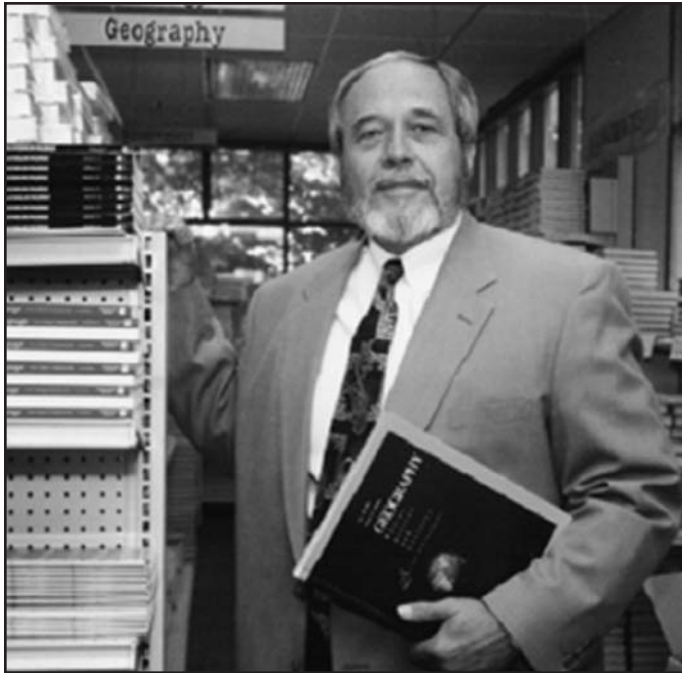
* Required at four-year institutions

ENGLISH

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

A concentration in English emphasizes 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 which is designed to help students identify weak areas in their writing, eliminate individual writing problems, and strengthen writing skills.

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



taught in computer classrooms. The department also offers distance learning classes. Students may also enroll in Cooperative Work Experience to gain practical work experience.

CAREER OPPORTUNITIES

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

Combined with further study, the associate degree with an emphasis in English may equip students for a variety of careers in education, law, government and public information.

I. General Education Core - AA **45 credit hours**
See page 43.

II. Recommended Electives **15 credit hours**

A.	ENGL	2307	Creative Writing	.....3
B.	ENGL	2311	Technical Writing	.....3
C.	ENGL	2322	British Literature I	.....3
D.	ENGL	2323	British Literature II	.....3
E.	ENGL	2327	American Literature I	.....3
F.	ENGL	2328	American Literature II	.....3
G.	ENGL	2332	World Literature I	.....3
H.	ENGL	2333	World Literature II	.....3
I.	ENGL	2371	Forms of Literature I-Short Story and Novel	3
J.	ENGL	2372	Forms of Literature II-Poetry & Drama	.....3
K.			Foreign Language Sequence I	.....4
L.			Foreign Language Sequence II	.....4

FRENCH

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

A concentration in French provides the essential language background for the advanced study of French, for competency in understanding, speaking, and writing the language, and for a more rapid acquisition of other foreign languages (particularly romance languages such as Spanish). The courses are oral-proficiency based in order to enable the student to converse in French as quickly as possible.

CAREER OPPORTUNITIES

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

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

I. General Education Core - AA **45 credit hours**
See page 43.

II. Recommended Electives **15 credit hours**

A.	FREN	1411	Beginning French I	.....4
B.	FREN	1412	Beginning French II	.....4
C.	FREN	2311	Intermediate French I	.....3
D.	FREN	2312	Intermediate French II	.....3
E.	FREN	1100	French Conversational I ¹	.....1
F.	FREN	1110	French Conversational II ²	.....1
G.	FREN	2303	French Literature I	.....3
H.	FREN	2304	French Literature II	.....3

¹Corequisite of FREN 2311

²Corequisite of FREN 2312

GEOGRAPHY

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

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

CAREER OPPORTUNITIES

Students transferring into a four-year institution 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.

- I. General Education Core - AA** **45 credit hours**
See page 43.
- II. Recommended Electives** **15 credit hours**
 - A. GEOG 1301 Physical Geography 3
 - B. GEOG 1302 Cultural Geography 3
 - C. GEOG 1303 World Regional Geography 3
 - D. ANTH 2351 Cultural Anthropology 3
 - E. HIST 2311 Western Civilization I 3
 - F. HIST 2312 Western Civilization II 3
 - G. PSYC 2301 General Psychology 3
 - H. Foreign Language Sequence I 4
 - I. Foreign Language Sequence II 4

GERMAN

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

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

- I. General Education Core - AA** **45 credit hours**
See page 43.
- II. Recommended Electives** **15 credit hours**
 - A. GERM 1411 Beginning German I 4
 - B. GERM 1412 Beginning German II 4
 - C. GERM 2311 Intermediate German I 3
 - D. GERM 2312 Intermediate German II 3

- E. GERM 1100 Conversational German I¹ 1
- F. GERM 1110 Conversational German II² 1
- G. GERM 2303 German Literature I 3
- H. GERM 2304 German Literature II 3

¹Corequisite of GERM 2311

²Corequisite of GERM 2312

GOVERNMENT

An Associate of Arts degree in government is a stepping stone to a liberal arts education. The second step is a bachelor's degree from a four-year institution. 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.

- I. General Education Core - AA** **45 credit hours**
See page 43.
- II. Recommended Electives** **15 credit hours**
 - A. CRIJ 1301 Introduction to Criminal Justice 3
 - B. ECON 2301 Principles of Macroeconomics 3
 - C. ECON 2302 Principles of Microeconomics 3
 - D. GOVT 2304 Introduction to Political Science 3
 - E. PHIL 2303 Logic 3
 - F. PHIL 2306 Ethics 3
 - G. PSYC 2301 General Psychology 3
 - H. Foreign Language Sequence I 4
 - I. Foreign Language Sequence II 4

HISTORY

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

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

CAREER OPPORTUNITIES

Background acquired by students majoring in history prepares them for careers in a variety of fields such as journalism, law, politics, social work, television and radio, etc.

A degree in history is also beneficial to students seeking a career as a writer or teacher but also will provide career opportunities in such adjacent fields as public history, museum curator, archivist, research associate for public and private agencies, and in developing fields like environmental historian for state agencies, contract work for legal firms and in the areas of computer/video/film documentaries.

I. General Education Core - AA 45 credit hours

See page 43.

II. Recommended Electives 15 credit hours

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

MUSIC

Also see Associate of Applied Science Commercial Music

The Associate of Arts degree provides general academic courses and electives that enable students who intend to major in music to transfer to four-year institutions. The curriculum emphasis is on music theory, keyboard skills, music literature, private study, and ensemble participation. Because of the various transfer requirements of different senior institutions, and to ensure enrollment in appropriate courses, students should consult with a CCCC music department faculty member and the institution which they plan to attend.

CAREER OPPORTUNITIES

- Music Education
- Performer

I. General Education Core - AA 45 credit hours

See page 43.

II. Recommended Electives 15 credit hours

A.	MUAP	XXXX	Any Applied Music course	3
B.	MUEN	XXXX	Any Music Ensemble course	3
C.	MUSI	1116	Aural Skills I	3
D.	MUSI	1117	Aural Skills II	3
E.	MUSI	1181	Beginning Piano I	3
F.	MUSI	1182	Beginning Piano II	3

G.	MUSI	1301	Music Fundamentals	3
H.	MUSI	1311	Music Theory I	3
I.	MUSI	1312	Music Theory II	3
J.	MUSI	2116	Aural Skills III	3
K.	MUSI	2118	Aural Skills IV	3
L.	MUSI	2181	Beginning Piano III	3
M.	MUSI	2182	Beginning Piano IV	3
N.	MUSI	2308	Introduction to Music Literature	3
O.	MUSI	2311	Music Theory III	3
P.	MUSI	2312	Music Theory IV	3
Q.	MUSI	2389	Academic Co-Op Music	3

PARALEGAL/LEGAL ASSISTANT

Also see Associate of Applied Science Paralegal/Legal Assistant

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

Additionally, TWU will offer paralegal courses on CCCC campuses beginning in Spring 2000.

Look for the creation of a TWU/CCCC Legal Studies Center in the near future. It will aim to provide academic and professional development courses as the paralegal profession expands and as its educational needs become more intense.

CAREER OPPORTUNITIES

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

JOB DESCRIPTION

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

I. General Education Core - AA 45 credit hours

See page 43.

II. Recommended Electives 15 credit hours*

A.	LGLA	1303	Legal Research	3
B.	LGLA	1307	Introduction to Law and the Legal Profession	3
C.	LGLA	1346	Civil Litigation I	3
D.	LGLA	1347	Civil Litigation II	3
E.	LGLA	2307	Law Office Management	3

E.	LGLA	2333	Advanced Legal Document Preparation	3
G.	OFAD	1325	Office Support Software	3

**Electives A through E are required under the TWU/CCCC articulation agreement. Additional hours may be required for transfer. See the program coordinator.*

PHILOSOPHY

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

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

CAREER OPPORTUNITIES

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

I. General Education Core - AA 45 credit hours

See page 43.

II. Recommended Electives 15 credit hours

A.	PHIL	1301	Introduction to Philosophy	3
B.	PHIL	1304	Comparative Religion	3
C.	PHIL	2303	Logic	3
D.	PHIL	2306	Ethics	3
E.	PHIL	2307	Intro. to Social and Political Philosophy	3
F.	PHIL	2371	Philosophy of Art/Aesthetics	3
G.	PHIL	2377	Applied Ethics and Business	3
H.	PSYC	2301	General Psychology	3
I.			Foreign Language Sequence I	4
J.			Foreign Language Sequence II	4

PHOTOGRAPHY

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:

- | | |
|--------------------------------|---------------------------------------|
| • Portrait Studio | • Multimedia Presentation |
| • Commercial Illustration | • Freelance Work |
| • Product Catalog Illustration | • Photo Lab Technician |
| • Industrial Photography | • Architectural Photographer |
| • Digital Image Manipulation | • Historical Documentary Photographer |
| • News/Editorial | • Teaching |

I. General Education Core - AA 45 credit hours

See page 43.

II. Recommended Electives 15 credit hours

A.	ARTS	2356	Photography I	3
B.	ARTS	2357	Photography II	3
C.	ARTS	2370	Photography Portrayal	3
D.	ARTS	2371	Contemporary Studies in the Visual Arts Photography ¹	3
E.	ARTS	2372	History of Photography	3
F.	ARTS	2389	Academic Co-Op Photography	3
G.	COMM	1316	Photo Illustration	3
H.	COMM	1317	Applied Photography	3
I.	DRAM	2366	History of Film Making I	3

¹Check the current class schedule for semester topics.

PSYCHOLOGY

An Associate of Arts degree in Psychology serves as a foundation for continued studies in psychology. Since most careers in psychology require a graduate degree, many students transfer to four-year institutions 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 which 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.

I. General Education Core - AA 45 credit hours

See page 43.

II. Recommended Electives 15 credit hours

A.	PSYC	2301	General Psychology	3
B.	PSYC	2306	Human Sexuality	3



C.	PSYC	2314	Life Span Psychology	3
D.	PSYC	2315	Psychology of Personal Adjustment	3
E.	PSYC	2316	Psychology of Personality	3
F.	PSYC	2319	Social Psychology	3
G.	PSYC	2371	Selected Topics in Psychology	3
H.	SOCI	1301	Introduction to Sociology	3
I.	SOCI	1306	Social Problems	3
J.	SOCI	2301	Marriage and Family	3
K.	SOCI	2371	Selected Topics in Sociology	3

SOCIOLOGY

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, collectivities, and society at large. As such, sociology courses at CCCC enable students to comprehend the widespread social changes that accompany society's transition into the Information Age. Critical thinking skills and a global perspective—attributes that will benefit students regardless of their major—are strongly emphasized in the program. Students who either major or minor in sociology will gain a solid foundation in the discipline and will be well prepared to transfer into a university program.

CAREER OPPORTUNITIES

Sociology is an excellent minor for students considering careers in education, business, law, social work, medicine, or psychology. The knowledge gained from sociology courses enhances a student's chances of being successful in accomplishing their career and life goals.

Sociology majors typically seek careers in teaching, social services, or research and planning in governmental or corporate settings.

I. General Education Core - AA 45 credit hours

See page 43.

II. Recommended Electives 15 credit hours

A.	SOCI	1301	Introduction to Sociology	3
B.	SOCI	1306	Social Problems	3
C.	SOCI	2306	Human Sexuality	3
D.	SOCI	2301	Marriage and Family	3
E.	SOCI	2319	Minority Studies	3
F.	SOCI	2371	Selected Topics in Sociology	3
G.	ANTH	2351	Cultural Anthropology	3
H.	PSYC	2301	General Psychology	3
I.	PSYC	2314	Life Span Psychology	3
J.	PSYC	2316	Psychology of Personality	3
K.	PSYC	2319	Social Psychology	3

SPANISH

The Associate of Arts degree with a concentration 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.

I. General Education Core - AA 45 credit hours

See page 43.

II. Recommended Electives 15 credit hours

A.	SPAN	1300	Conversational Spanish I	3
B.	SPAN	1310	Conversational Spanish II	3
C.	SPAN	1411	Beginning Spanish I	4
D.	SPAN	1412	Beginning Spanish II	4
E.	SPAN	2311	Intermediate Spanish I	3
F.	SPAN	2312	Intermediate Spanish II	3
G.	SPAN	2321	Spanish Literature I	3
H.	SPAN	2322	Spanish Literature II	3



SPEECH

The Associate of Arts degree with a concentration 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 Communications gain enhanced awareness of the impact communication skills have both in the personal and professional arenas. Both the traditional rhetorical approach (oral presentation) and the behavioristic approach (communication theory and skill) are reflected in Speech Communication course offerings.

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

CAREER OPPORTUNITIES

The Associate of Arts degree 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 Associate of Arts degree in Speech Communication provides the academic foundation to successfully complete a bachelor's degree at a four-year institution, and then to pursue a career in fields such as mass media, public relations, law, government, personnel, employee relations, and education.

- | | |
|---------------------------------------|--|
| I. General Education Core - AA | 45 credit hours |
| See page 43. | |
| II. Recommended Electives | 15 credit hours |
| A. SPCH 1311 | Fundamentals of Speech Communication . . . 3 |
| B. SPCH 1315 | Public Speaking 3 |
| C. SPCH 1318 | Interpersonal Communication 3 |

- | | |
|--------------|--|
| D. SPCH 1321 | Business and Professional Speaking 3 |
| E. SPCH 1371 | Public Speaking II 3 |
| F. SPCH 2341 | Oral Interpretation 3 |
| G. SPCH 2370 | Language and Communication 3 |
| H. COMM 2331 | Radio and TV Announcing 3 |
| I. COMM 2332 | Radio and TV News 3 |
| J. DRAM 1351 | Acting I 3 |
| K. DRAM 1352 | Acting II 3 |

THEATRE

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

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.

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 hands-on experiences through performances, as well as shop and crew duties. Our studies include contemporary theories and classical aspects of theatrical studios.

The Quad C Theatre program at CCCC 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.

Students and community members interested in theatre performance are encouraged to audition for the plays performed each year.

Theatre program faculty and students have experience in professional stage and motion picture work, including such projects as the Broadway musical "*Sarafina!*"; rock tours with Van Halen and Michael Jackson; films such as "*Young Guns*," "*JFK*," "*Cry Baby*," and "*The Newton Boys*."

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

For more information about the Quad C Theatre program, contact the coordinator of theatre at SCC/C155, 972.881.5679, or via e-mail at bbaker@cccdd.edu.

CAREER OPPORTUNITIES

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

I. General Education Core - AA 45 credit hours

See page 43.

II. Recommended Electives 15 credit hours

A.	BUSI	2379	Business of Theatre	.....3
B.	DRAM	1171	Theatre Practicum: Performance	.....1
C.	DRAM	1172	Theatre Practicum: Technical	.....1
D.	DRAM	1310	Introduction to the Theatre	.....3
E.	DRAM	1330	Stagecraft I	.....3
F.	DRAM	1341	Theatrical Makeup	.....3

G.	DRAM	1351	Acting I	.....3
H.	DRAM	1352	Acting II	.....3
I.	DRAM	1376	Introduction to Costuming	.....3
J.	DRAM	2331	Stagecraft II	.....3
K.	DRAM	2336	Voice and Diction	.....3
L.	DRAM	2351	Acting III	.....3
M.	DRAM	2361	History of Theatre I	.....3
N.	DRAM	2362	History of Theatre II	.....3
O.	DRAM	2366	History of Film Making I	.....3
P.	DRAM	2367	History of Film Making II	.....3
Q.	DRAM	2371	Acting for Film & Television	.....3
R.	DRAM	2371	Advanced Stage Combat	.....3
S.	DRAM	2371	Introduction to Directing	.....3
T.	DRAM	2371	Introduction to Musical Theatre	.....3
U.	DRAM	2371	New York Theatre Field Studies	.....3
V.	DRAM	2371	Stage Lighting	.....3
W.	DRAM	2371	Stage Management	.....3
X.	DRAM	2371	Survey of Contemporary American Dramatic Literature	.....3
Y.	DRAM	2371	Theatre Outreach	.....3

ASSOCIATE OF SCIENCE



BIOLOGY

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

CAREER OPPORTUNITIES

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

- Agriculture
- Allied Health Sciences
- Biotechnology
- Botany
- Dentistry
- Ecology
- Environmental Science
- Medical Research
- Medical Technology
- Microbiology
- Nutrition and Dietary Science
- Pharmacology
- Physical Therapy
- Science Education

- Genetic Counseling
- Genetic Engineering
- Marine Science
- Medicine
- Toxicology
- Veterinary Science
- Wildlife Biology

I. General Education Core - AS **45 credit hours**
See page 43.

II. Recommended Electives **15 credit hours**

A.	BIOL	1322	General Nutrition	.....	3
B.	BIOL	1411	General Botany	.....	4
C.	BIOL	1424	Systematic Botany	.....	4
D.	BIOL	1470	Marine Biology	.....	4
E.	BIOL	2370	Special Problems in Biology	.....	3
F.	BIOL	2371	Special Topics in Biology	.....	3
G.	BIOL	2389	Academic Co-op Biology	.....	3
H.	BIOL	2401	Anatomy and Physiology I	.....	4
I.	BIOL	2402	Anatomy and Physiology II	.....	4
J.	BIOL	2406	Introductory Ecology	.....	4
K.	BIOL	2416	Genetics	.....	4
L.	BIOL	2418	Invertebrate Zoology	.....	4
M.	BIOL	2420	Microbiology	.....	4
N.	BIOL	2428	Comparative Vertebrate Anatomy	.....	4
O.	BIOL	2470	Human Genetics	.....	4
P.	CHEM	1411	General Chemistry I	.....	4
Q.	CHEM	1412	General Chemistry II	.....	4

R.	CHEM	2423	Organic Chemistry I	.4
S.	CHEM	2425	Organic Chemistry II	.4
T.	ENVR	1470	West Texas Natural History	.4
U.	HLSC	1300	Medical Terminology	.3
V.	MATH	1342	Statistics	.3
W.	PHYS	1401	General Physics I	.4
X.	PHYS	1402	General Physics II	.4
Y.	PHYS	2425	University Physics I	.4
Z.	PHYS	2426	University Physics II	.4

CHEMISTRY

The Associate of Science degree with a concentration 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 CCCC a personalized, high quality educational experience.

CAREER OPPORTUNITIES

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

- Biomedical Engineer
- Chemical Engineer
- Cosmetics Researcher
- Dietician
- Environmental Scientist
- Geophysicist
- Industrial Researcher
- Medical Technologist
- Nurse
- Oceanographer
- Perfumer
- Pharmacist
- Physician
- Veterinarian

I. General Education Core - AS 45 credit hours

See page 43.

II. Recommended Electives 15 credit hours

A.	CHEM	1170	Biochemistry	.1
B.	CHEM	2389	Academic Co-op Chemistry	.3
C.	CHEM	2401	Analytical Chemistry	.4
D.	CHEM	2423	Organic Chemistry I	.4
E.	CHEM	2425	Organic Chemistry II	.4
F.	MATH	2415	Calculus III	.4
G.	MATH	2320	Differential Equations	.3
H.	PHYS	2425	University Physics I	.4
I.	PHYS	2426	University Physics II	.4

COMPUTER SCIENCE

The Associate of Science degree with a concentration in computer science prepares students for work in a variety of related areas. The course work for a BS in Computer Science is similar at most four-year institutions; 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

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

I. General Education Core - AS 45 credit hours

See page 43.

II. Recommended Electives 15 credit hours

15 credit hours minimum

A.	COSC	1320	Structured Programming using C++ ¹	.3
B.	COSC	2325	Assembly Language	.3
C.	ENGL	2311	Technical Writing	.3
D.	ENGL	2xxx	Any Sophomore Literature Course	.3
E.	MATH	2318	Linear Algebra	.3
F.	PHIL	2303	Logic	.3
G.	COSC	2315	Data Structures with Object Oriented C++	.3
H.	COSC	2320	Object-Oriented Programming for Programmers with C++ ²	.3

¹May substitute COSC 1420.

²May substitute COSC 2420.

ENGINEERING

The Associate of Science degree in engineering prepares students for transfer to four-year institutions in most engineering degrees. The student is advised to consult with an academic advisor when selecting a transfer college or university.

CAREER OPPORTUNITIES

Presently more than two-thirds of all technical, and a large percentage of managerial positions in industry, are occupied by engineers. The engineering program prepares students for transfer to a four-year institution where they can specialize in such disciplines as:

- Aerospace Engineering
- Agriculture Engineering
- Bioengineering
- Biochemical & Food Engineering
- Forest Engineering
- Industrial Engineering
- Mechanical Engineering
- Nuclear Engineering

- Chemical Engineering
- Civil Engineering
- Computer Science Engineering
- Electrical Engineering
- Ocean Engineering
- Petroleum Engineering
- Radiological Health Engineering

I. General Education Core - AS **45 credit hours**
See page 43.

II. Recommended Electives **15 credit hours**

A. ENGR 1304	Engineering Graphics	.....3
B. ENGR 2301	Engineering Mechanics I	.....3
C. ENGR 2302	Engineering Mechanics II	.....3
D. ENGR 2332	Materials and Processes	.....3
E. ENGR 2405	Electrical Circuit Analysis	.....3
F. CHEM 1411	General Chemistry I	.....4
G. CHEM 1412	General Chemistry II	.....4
H. ENGL 2311	Technical Writing	.....3
I. MATH 2318	Linear Algebra	.....3
J. MATH 2320	Differential Equations	.....3
K. MATH 2415	Calculus III	.....4

GEOLOGY

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. A knowledge of geology provides a background for careers in geology and environment fields.

The Associate of Science degree with a concentration in Geology prepares the student to pursue university studies leading to a bachelor's degree. The basic AS program in Geology prepares the student for further education in fields such as geology, environmental science, or resource management. Students seeking advanced degrees in geological or environmental fields should select electives related to their field of interest.

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

CAREER OPPORTUNITIES

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

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

I. General Education Core - AS **45 credit hours**
See page 43.

II. Recommended Electives **15 credit hours**

A. GEOL 1305	Natural Disasters	.....3
B. GEOL 1402	Dinosaurs!	.....4
C. GEOL 1405	Earth Habitat	.....4
D. GEOL 1445	Oceanography	.....4
E. GEOL 2389	Academic Co-Op Geology	.....3
F. GEOL 2409	Rocks, Minerals, & Gem Stones	.....4
G. CHEM 1411	General Chemistry I	.....4
H. CHEM 1412	General Chemistry II	.....4
I. COSC 1318	Programming Concepts Using Pascal	.....3
J. ENGL 2311	Technical Writing	.....3
K. ENVR 1470	West Texas Natural History	.....4
L. MATH 1342	Statistics	.....3
M. MATH 2413	Calculus I	.....4
N. MATH 2414	Calculus II	.....4
O. PHYS 2425	University Physics I	.....4
P. PHYS 2426	University Physics II	.....4

HORTICULTURE/LANDSCAPE TECHNOLOGY

Also see Associate of Applied Science Horticulture Technology

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

CAREER OPPORTUNITIES

- | | |
|----------------------------------|-----------------------------|
| • Extension Horticulturist | • Golf Course Maintenance |
| • Plant Research and Development | • Park Maintenance |
| • County Agent | • Department of Agriculture |
| • Horticultural Education | |

I. General Education Core - AS **45 credit hours**
See page 43.

II. Recommended Electives **15 credit hours**

A. HORT 1300	Basic Horticulture	.....3
B. HORT 1305	Soils and Plant Nutrition	.....3
C. HORT 1310	Plant Pests and Controls	.....3
D. HORT 1315	Interior Plants	.....3
E. HORT 1320	Turfgrass Science & Management.	.....3
F. HORT 1400	Woody Plant Materials	.....4
G. HORT 1401	Herbaceous Plant Materials	.....4
H. HORT 2210	Equipment Management	.....2
I. HORT 2325	Plant Propagation Techniques	.....3

J.	HORT	2335	Professional Turfgrass Management	3
K.	HORT	2336	Golf Course & Park Management	3
L.	HORT	2337	Specialized Turf Management	3

MATHEMATICS

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

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

CAREER OPPORTUNITIES

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

- Actuary
- Statistician
- Operations Researcher
- Teacher
- Consultant

I. General Education Core - AS 45 credit hours

See page 43.

II. Recommended Electives				15 credit hours
A.	MATH	1370	Introduction to the History of Mathematics .3	
B.	MATH	2305	Discrete Mathematics	3
C.	MATH	2312	Pre-Calculus for Math and Science	3
D.	MATH	2318	Linear Algebra	3
E.	MATH	2320	Differential Equations	3
F.	MATH	2389	Academic Co-op Mathematics	3
G.	MATH	2413	Calculus I	4
H.	MATH	2414	Calculus II	4
I.	MATH	2415	Calculus III	4
J.	ENGL	2311	Technical Writing	3
K.	ENGL	2xxx	Any Sophomore Literature Course	3
L.	PHIL	2303	Logic	3



PHYSICAL EDUCATION & HEALTH

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

Students may earn an Associate of Science degree with a concentration 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.

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

I. General Education Core - AS **45 credit hours**

See page 43.

II. Recommended Electives **15 credit hours**

A.	PHED	1238	Concepts of Physical Fitness and Wellness . . .2
B.	PHED	1301	Foundations of Sport and Physical Activity . .3
C.	PHED	1304	Personal Health3
D.	PHED/DANC		Any Activity Course1
E.	PHED	2389	Academic Co-op Physical Education3
F.	BIOL	2401	Anatomy and Physiology I4
G.	BIOL	2402	Anatomy and Physiology II4
H.	PSYC	2301	General Psychology3

PHYSICS

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

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

The Associate of Science degree with a concentration 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 four-year institution should check with the specific degree plan requirements of their intended major.

DEGREE REQUIREMENTS

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

CAREER OPPORTUNITIES

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

- Aerospace Technology
- Astronomy
- Biophysics
- Chemistry
- Computer Science
- Elementary or Secondary Education
- Engineering-Civil, Electrical or Industrial
- Geophysics
- Hydrogeology
- Medicine
- Meteorology
- Patent Law
- Physics
- Seismology

I. General Education Core - AS **45 credit hours**

See page 43.

a. General Physics Level

Students seeking degrees in biology or pre-medical should select general physics.

b. University Physics Level

Students seeking advanced degrees in science and engineering fields should select advanced levels of math and physics sequences (such as 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

II. Recommended Electives **15 credit hours**

A.	PHYS	1411	Elementary Astronomy4
B.	PHYS	2389	Academic Co-op Physics3
C.	CHEM	1411	General Chemistry I4
D.	CHEM	1412	General Chemistry II4
E.	ENGL	2311	Technical Writing3
F.	MATH	2312	Pre-Calculus for Mathematics and Science (General Level)3
G.	MATH	2318	Linear Algebra (College Level)3
H.	MATH	2320	Differential Equations (College Level)3
I.	MATH	2415	Calculus III (College Level)4



ASSOCIATE OF APPLIED SCIENCE DEGREES & CERTIFICATE PROGRAMS

CAREER AND TECHNICAL PROGRAMS

	Associate of Applied Science	AAS Specialization Certificate	Certificate Specialization	Enhanced Skills Certificate for Tech Prep		Associate of Applied Science	AAS Specialization Certificate	Certificate Specialization	Enhanced Skills Certificate for Tech Prep
Applied Graphic Design Technology	•				Early Childhood Special Educator			•	
Animation			•		Infant and Toddler Educator			•	
Computer Graphics			•		Computer-Aided Drafting & Design	•		•	•
Digital Photography			•		AutoCAD			•	
Digital Video		•			Commercial Interior Design		•	•	
Graphic Design		•			Electronic Design		•		
Illustration			•		Electronic Design Automation			•	
Internet/Web Design			•		Computer Information Systems	•			
Multimedia		•	•		Business Programming		•		
Biotechnology	•		•		C++ Programming			•	
Business Multimedia Technology	•				Computer Applications				•
Multimedia Presentation Technician			•		Computer Information Systems			•	
Technology-Based Training Specialist			•		Computer Operating Systems			•	
Web Administration		•			Computer Systems		•	•	
Web Developer		•	•		Information Systems Management				•
Child Development	•				Microcomputer Applications		•		
Early Childhood Administrator			•		Visual Basic Programming				•
Early Childhood Educator			•						

Associate of Applied Science
AAS Specialization
Certificate
Certificate Specialization
Enhanced Skills Certification
for Tech Prep

Associate of Applied Science
AAS Specialization
Certificate
Certificate Specialization
Enhanced Skills Certification
for Tech Prep

Computer Network Technology	•		•		
Computer Network Technology Hardware			•		
Computer Network Technology Software			•		
Dental Hygiene	•				
Dietary Manager			•		
Electronic Technology	•		•		•
Computer Maintenance		•	•		
Instrumentation		•	•		
Electronic Engineering Technology	•		•		
Emergency Medical Services			•		
Environmental Technology	•		•		
Waste & Waste Water Monitoring & Testing		•			
Waste Management & Remediation		•			
Fire Science	•		•		
Basic Firefighter		•	•		
Fire Officer		•	•		
Fire Specialization		•			
Horticulture Technology	•	•			
Landscape		•			
Landscape Industry			•		
Professional Turf Management		•			
Hospitality Management	•				
Culinary Arts		•			
Lodging		•	•		
Restaurant Management			•		
Travel Management			•		
Travel/Tourism		•			
Interpreter Preparation/Deaf	•				
Interpreting Apprentice			•		
Management Development	•				•
Human Resources Management			•		
Quality Management			•		
Strategic Management			•		
Marketing	•				
Retailing				•	
Sales Management				•	

Music, Commercial	•				
Audio Engineering			•		
Nursing (ADN)	•				
Office Administration	•				
Administrative Support			•		
Enhanced Office Technology				•	
Entry-Level Accounting Clerk			•		
Entry-Level Office Support			•		
Entry-Level Medical Transcription Skills			•		
Entry-Level Medical Office Support			•		
Legal Office Support			•		
Medical Administrative Assistant			•		
Mid-Level Medical Transcription Skills			•		
Mid-Level Office Support			•		
Word Processing			•		
Paralegal/Legal Assistant	•				
Paralegal General			•		
Paralegal Specialty			•		
Phlebotomy			•		
Physical Therapist Assistant	•				
Real Estate	•				
Real Estate Broker			•		
Real Estate General			•		
Respiratory Care	•				
Semiconductor Manufacturing Technology	•				
Semiconductor Manufacturing Operator			•		
Small Business Management			•		
Telecommunications Technology	•		•		•
Telecommunications Customer Service		•		•	
Telecommunications Manufacturing		•		•	
Telecommunications Switching		•		•	
Telecommunications Transmission		•		•	
Wireless Telecommunications		•		•	

Special Admission Requirement

NOTE: Tech Prep courses are noted within specific AAS programs.

APPLIED GRAPHIC DESIGN TECHNOLOGY

67 credit hours minimum to graduate

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

Apple Computer has named CCCCD's Applied Graphic Design Technology department one of only three Apple Multimedia Regional Centers in the country. The high visibility of this center enhances CCCCD graduates' employment possibilities.

Applied Graphic Design Technology offers an Associate of Applied Science degree with specialization in graphic design, multimedia or digital video. Certificates are also offered in animation, multimedia, computer graphics, digital photography, illustration and Internet/web design.

Students receive a strong background in traditional graphics and illustration together with state-of-the-art training in electronic publishing, imaging, graphics, 3D modeling animation and interactive multimedia. A student ad agency and an active internship program help to bridge the gap from formal training to full-time employment. Students may elect to take Cooperative Work Experience (AGDT 7300) to obtain practical experience in the career field.

CAREER OPPORTUNITIES

Jobs in the Applied Graphic Design Technology field are varied and depend upon the business or agency speciality. Listed below are some of the career opportunities:

- Production Artist
- Art Director
- Computer Graphics Production Artist
- Multimedia Director/Author
- Computer Visualization Artist
- Graphic Designer
- Illustrator
- Computer Illustrator
- Computer Animator
- Digital Photo Retouch Artist

I. General Education Core - AAS **22 credit hours**
See page 45.

II. Technical Core **12 credit hours**

A. AGDT 1300	Survey of Applied Graphic Design Technology . . .3
B. AGDT 1310	Introduction to Computer Graphics3
C. AGDT 1320	Introduction to Electronic Imaging3
D. AGDT 2370	Professional Practices3 (Exit course: Consent of coordinator required)

III. Specialization

Digital Video **27 credit hours**

67 Total Credit Hours required for Digital Video Specialization.

- | | |
|--------------|---|
| A. AGDT 1340 | Storyboard and Script Design3 |
| B. AGDT 2355 | Multimedia Studio3 |
| C. AGDT 2360 | Video for Multimedia3 |
| D. AGDT 2361 | Digital Post-Production for Multimedia . . .3 |
| E. MUSC 2370 | Audio for Multimedia I3 |
| F. MUSC 2371 | Audio for Multimedia II3 |

Choose three of the following:

- | | |
|--------------|---|
| A. AGDT 1325 | Visual Communications I3 |
| B. AGDT 1331 | 2D Computer Illustration3 |
| C. AGDT 2320 | Image Processing3 |
| D. AGDT 2332 | 3D Computer Illustration3 |
| E. AGDT 2340 | 3D Computer Animation3 |
| F. ARTS 1311 | Design I3 |
| G. ARTS 2356 | Photography I3 |
| H. COMM 1316 | Photo Illustration3 |
| I. DRAM 2366 | History of Film Making I3 |
| J. DRAM 2371 | Acting for Film and Television3 |
| K. DRAM 2371 | The Art of Directing3 |

Electives **6 credit hours**

- | | |
|--------------|---|
| A. ARTS 2356 | Photography I3 |
| B. COMM 1316 | Photo Illustration3 |
| C. DRAM 1341 | Theatrical Makeup3 |
| D. DRAM 1376 | Introduction to Costuming3 |
| E. DRAM 2366 | History of Film Making I3 |
| F. DRAM 2367 | History of Film Making II3 |
| G. DRAM 2371 | Acting for Film and Television3 |
| H. DRAM 2371 | The Art of Directing3 |
| I. AGDT XXXX | Any other AGDT course approved by coordinator |

Graphic Design **33 credit hours**

70 Total Credit Hours required for Graphic Design Specialization.

- | | |
|--------------|---|
| A. AGDT 1315 | Computer Typography3 |
| B. AGDT 1325 | Visual Communications I3 |
| C. AGDT 1330 | Beginning Illustration3 |
| D. AGDT 1331 | 2D Computer Illustration3 |
| E. AGDT 2325 | Electronic Publishing for Graphic Design . . .3 |
| F. AGDT 2326 | Graphic Design for Production3 |
| G. ARTC 2349 | Art Direction II3 |
| H. ARTS 1311 | Design I3 |
| I. ARTS 1316 | Drawing I3 |

Choose two of the following:

- | | |
|--------------|-------------------------------------|
| A. AGDT 1326 | Visual Communications II3 |
| B. AGDT 2320 | Image Processing3 |
| C. AGDT 2330 | Illustration3 |
| D. ARTS 2332 | Life Drawing3 |

Electives	3 credit hours
A. AGDT 2331	Advanced 2D Computer Illustration3
B. ARTS 2311	Introduction to Color/Painting3
C. ARTS 2316	Painting I3
D. ARTS 1317	Drawing II3
E. ARTS 2333	Printmaking I3
Any other AGDT course approved by coordinator	

Computer Graphics	36 credit hours
A. AGDT 1300	Survey of Applied Graphic Design Technology . .3
B. AGDT 1310	Introduction to Computer Graphics3
C. AGDT 1315	Computer Typography3
D. AGDT 1320	Introduction to Electronic Imaging3
E. AGDT 1325	Visual Communication I3
F. AGDT 1330	Beginning Illustration3
G. AGDT 1331	2D Computer Illustration3
H. AGDT 2325	Electronic Publishing for Graphic Design . .3
I. AGDT 2370	Professional Practices3
J. ARTC 2349	Art Direction II3
K. ARTS 1311	Design I3
L. ARTS 1316	Drawing I3

Multimedia 33 credit hours
 70 Total Credit Hours required for Multimedia Specialization.

A. AGDT 1332	Introduction to 3D Computer Illustration . . .3
B. AGDT 1340	Storyboard and Script Design3
C. AGDT 1348	Interactive Design3
D. AGDT 1350	Introduction to Multimedia Authoring3
E. AGDT 2332	3D Computer Illustration3
F. AGDT 2335	2D Computer Animation3
G. AGDT 2355	Multimedia Studio3
H. MUSC 2370	Audio for Multimedia I3

Choose three of the following:

A. AGDT 1315	Computer Typography3
B. AGDT 1351	Interactive Multimedia Authoring3
C. AGDT 2320	Image Processing3
D. AGDT 2336	Advanced 2D Computer Animation3
E. AGDT 2340	3D Computer Animation3
F. AGDT 2341	Advanced 3D Computer Animation3
G. ARTS 1311	Design I3

Electives	3 credit hours
A. AGDT 1331	2D Computer Illustration3
B. ARTS 1316	Drawing I3
C. ARTS 1317	Drawing II3
D. AGDT XXXX	Any other AGDT course approved by coordinator

Digital Photography	39 credit hours
A. AGDT 1300	Survey of Applied Graphic Design3
B. AGDT 1310	Introduction to Computer Graphics3
C. AGDT 1325	Visual Communications I3
or AGDT 1340	Storyboard and Script Design3
D. AGDT 2335	2D Computer Animation3
or ARTS 2371	Digital Photography II3
E. AGDT 2370	Professional Practices3
F. ARTC 2349	Art Direction II3
G. ARTS 1311	Design I3
H. ARTS 2356	Photography I3
I. ARTS 2357	Photography II (Color Theory)3
J. ARTS 2371	Digital Photo I3
K. COMM 1316	Photo Illustration3
L. COMM 1317	Applied Photography3

Elective 3 credit hours

A. ARTS 2371	Contemporary Studies in the Visual Arts
--------------	---

Select one of the following Special Topics:

Advanced Color Photography, Alternative Processes, Architectural Photography, Fashion Photography, or View Camera/Zone Systems

APPLIED GRAPHIC DESIGN CERTIFICATES

Some of the courses in the certificate programs may require prerequisites. Check the course descriptions in this catalog.

Animation	42 credit hours
A. AGDT 1300	Survey of Applied Graphic Design Tech. . . .3
B. AGDT 1310	Introduction to Computer Graphics3
C. AGDT 1320	Introduction to Electronic Imaging3
D. AGDT 1332	Introduction to 3D Computer Illustration . .3
E. AGDT 1340	Storyboard and Script Design3
F. AGDT 1350	Introduction to Multimedia Authoring3
G. AGDT 2332	3D Computer Illustration3
H. AGDT 2335	2D Computer Animation3
I. AGDT 2336	Advanced 2D Computer Animation3
J. AGDT 2340	3D Computer Animation3
K. AGDT 2341	Advanced 3D Computer Animation3
L. AGDT 2355	Multimedia Studio3
M. AGDT 2370	Professional Practices3
N. MUSC 2370	Audio for Multimedia I3

Illustration	36 credit hours
A. AGDT 1300	Survey of Applied Graphic Design Technology . .3
B. AGDT 1310	Introduction to Computer Graphics3
C. AGDT 1320	Introduction to Electronic Imaging3
D. AGDT 1325	Visual Communications I3
E. AGDT 1330	Beginning Illustration3
F. AGDT 1331	2D Computer Illustration3
G. AGDT 2330	Illustration3
H. AGDT 2370	Professional Practices3
I. ARTC 2349	Art Direction II3
J. ARTS 1311	Design I3
K. ARTS 1316	Drawing I3
L. ARTS 2323	Life Drawing3

Internet/Web Design		36 credit hours
A.	AGDT 1300	Survey of Applied Graphic Design Tech.3
B.	AGDT 1310	Introduction to Computer Graphics3
C.	AGDT 1320	Introduction to Electronic Imaging3
D.	AGDT 1340	Storyboard and Script Design3
E.	AGDT 1348	Interactive Design3
F.	AGDT 2335	2D Computer Animation3
G.	AGDT 2355	Multimedia Studio3
H.	AGDT 2361	Digital Post-Production for Multimedia . . .3
or	AGDT 2332	3D Computer Illustration3
I.	AGDT 2370	Professional Practices3
J.	AGDT 2390	Special Topics: Multimedia for Internet . . .3
K.	AGDT 2391	Advanced Multimedia for the Internet3
L.	MUSC 2370	Audio for Multimedia I3

Multimedia		45 credit hours
A.	AGDT 1310	Introduction to Computer Graphics3
B.	AGDT 1315	Computer Typography3
C.	AGDT 1320	Introduction to Electronic Imaging3
D.	AGDT 1332	Introduction to 3D Computer Illustration . .3
E.	AGDT 1340	Storyboard and Script Design3
F.	AGDT 1348	Interactive Design3
G.	AGDT 1350	Introduction to Multimedia Authoring3
H.	AGDT 1351	Interactive Multimedia Authoring3
or	AGDT 2336	Advanced 2D Computer Animation3
I.	AGDT 2332	3D Computer Illustration3
J.	AGDT 2335	2D Computer Animation3
K.	AGDT 2340	3D Computer Animation3
L.	AGDT 2355	Multimedia Studio3
M.	AGDT 2361	Digital Post-Production for Multimedia . . .3
N.	AGDT 2370	Professional Practices3
O.	MUSC 2370	Audio for Multimedia I3

BIOTECHNOLOGY

64 credit hours required to graduate

The Biotechnology program is designed to prepare 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. Emphasis is placed not only on learning the theory behind modern advances in biotechnology, but also on developing hands-on laboratory experience. Proper laboratory management, including planning and reporting experiments, recording observations, handling and caring for equipment, supplies, and living cells, and time management are all part of the first year's courses. Advanced procedures covered in the second year include cell and tissue culture, microbial and eukaryotic genetics, and nucleic acid and protein handling and analysis. Biochemistry, cell and molecular biology, statistical analysis, technical writing, legal and ethical considerations, and use of computers and the Internet support the

program. Actual work in a biotechnology laboratory is part of the final semester, in a capstone experience facilitating transition from school to the workplace. The courses would also provide a background for further studies toward bachelor's and graduate degrees.

CAREER OPPORTUNITIES

Laboratory jobs are available at colleges, universities, medical schools, pharmaceutical and industrial companies, as well as other new occupations rapidly developing in Texas and other parts of the nation. These jobs require the use of principles and theories of science and mathematics in research and development, as well as the invention and improvement of biological products and processes, including quality control. Salary for these positions (entry-level) may range between \$17,000 and \$24,000 per year.

- Biotechnology Research Assistant/Technician
- Biotechnology production/QC Assistant/Technician
- Pharmaceutical Research Assistant/Technician
- Medical Research Assistant/Technician
- Microbiological Research Assistant/Technician
- Forensic Laboratory Assistant/Technician
- Federal Government Technical Work in Agriculture, Defense, Interior Departments
- Technical Work in Manufacturing, Chemical, Food Processing Industries
- Environmental Technical Work (Waste Products, Pollutants)
- Laboratory Management and Support Positions

I. General Education Core - AAS **28 credit hours**
See page 45.

CHEM 1405 or CHEM 1411 is required for this program.

II. Technical Core **15 credit hours**

A.	BIOT 1302	Introduction to Biotechnology3
B.	BIOT 2400	Molecular Biology Methods and Techniques I 4
C.	BIOL 2420	General Microbiology4
D.	CHEM 1412	General Chemistry II4
or	CHEM 1419	Introduction to Organic/Biochemistry4

III. Major Courses **18 credit hours**

A.	BIOT 2331	Biomedical Law and Ethics3
B.	BIOT 2366	Field Experience Biotechnology (CAPSTONE)3
C.	BIOT 2401	Molecular Biology Methods and Techniques II4
D.	BIOT 2402	Cell Culture Techniques4
E.	BIOT 2403	Molecular Biology Methods and Techniques III4

IV. Electives **3 credit hours**

A.	BIOT 1364	Field Experience Biotechnology3
B.	ENGL 2311	Technical Writing3
C.	EPCT 1311	Introduction to Environmental Science . . .3
D.	HORT 1300	Basic Horticulture3
E.	PHYS 1405	Introduction to Physics4

BIOTECHNOLOGY CERTIFICATE

Biotechnician Level One Certificate **29 credit hours**

I. First Semester **14 credit hours**

- | | | | | |
|----|----------|------|---|---|
| A. | BIOT | 1302 | Introduction to Biotechnology | 3 |
| B. | BIOL | 1406 | General Biology I | 4 |
| C. | CHEM | 1405 | Introduction to Chemistry I | |
| or | CHEM | 1411 | General Chemistry I | 4 |
| D. | Elective | | | 3 |

Select from the following courses:

- | | | |
|------|------|---------------------------------------|
| EPCT | 1311 | Introduction to Environmental Science |
| ENGL | 2311 | Technical Writing |
| HORT | 1300 | Basic Horticulture |

II. Second Semester **15 credit hours**

- | | | | | |
|----|------|------|---|---|
| A. | BIOT | 1364 | Field Experience-Biotechnology | 3 |
| B. | BIOT | 2400 | Molecular Biology Methods and
Techniques I | 4 |
| C. | BIOT | 2402 | Cell Culture Techniques | 4 |
| or | BIOL | 2420 | Microbiology | 4 |
| D. | CHEM | 1412 | General Chemistry II | 4 |
| or | CHEM | 1419 | Introduction to Organic/Biochemistry | 4 |

BUSINESS MULTIMEDIA TECHNOLOGY

Interactive multimedia technologies are being utilized by businesses and educators alike for computer-based training, distance learning, marketing, communications, and reference systems. Traditional models of training are changing rapidly, as businesses seek to convert leader-led training for network and Internet delivery. Web-based training utilizes interactive multimedia technologies to improve training effectiveness and reduce training costs. Interactive multimedia is spreading to all areas of business—legal, medical, manufacturing, finance, real estate, etc.—as its power of effective communication is being realized. This program will prepare students to create dynamic interactive multimedia computer-based training modules, simulations, multimedia presentations, and interactive multimedia pages to be published over the World Wide Web.

CAREER OPPORTUNITIES

An Instructional Multimedia Technology associate degree or certificate provides a variety of career opportunities:

- **Interactive Multimedia Programmer/Author:** plan, design, and develop interactive multimedia programs to be used for instructional/marketing purposes.
- **Multimedia Developer/Generalist:** develop multimedia presentation for communications, marketing or for any purpose in any environment.
- **Web-Master:** create Web pages and access and deliver information over global databases.

BUSINESS MULTIMEDIA TECHNOLOGY*

67 credit hours required to graduate

I. General Education Core - AAS **22 credit hours**

See page 45.

ECON 2301 and MATH 1324 are required for this program.

II. Technical Core **12 credit hours**

- | | | | | |
|----|------|------|--|---|
| A. | CSCI | 1325 | Introduction to Multimedia | 3 |
| B. | CSCI | 2340 | Project Development and Delivery | 3 |
| C. | CSCI | 2360 | Hypertext Markup Language (HTML) | 3 |
| D. | ENGL | 2311 | Technical Writing | 3 |

III. Major Courses **24 credit hours**

- | | | | | |
|----|------|------|--|---|
| A. | CSCI | 1310 | Introduction to Graphics | 3 |
| B. | CSCI | 1315 | Multimedia Presentations | 3 |
| C. | CSCI | 1330 | Instructional Design for Business and
Education | 3 |
| D. | CSCI | 1380 | Cooperative Education - Computer and
Information Sciences, General (Capstone) | 3 |
| E. | CSCI | 2325 | Intermediate Multimedia Applications | 3 |
| F. | CSCI | 2365 | Advanced Multimedia Applications | 3 |
| G. | CSCI | 2371 | Web Authoring | 3 |
| H. | DFTG | 1391 | Special Topics in Drafting | 3 |

IV. Electives **9 credit hours**

- | | | | | |
|----|------|------|--|---|
| A. | BCIS | 1310 | BASIC Programming | 3 |
| B. | BCIS | 2390 | Software Engineering | 3 |
| C. | COSC | 1320 | Structured Programming Using C++ | 3 |
| D. | CSCI | 1370 | Introduction to Visual Basic Programming | 3 |
| E. | CSCI | 2305 | Integrated Spreadsheet Applications | 3 |
| F. | CSCI | 2310 | Database Applications | 3 |
| G. | CSCI | 2315 | Desktop Publishing | 3 |
| H. | CSCI | 2349 | Advanced Visual Basic Programming | 3 |
| I. | CSCI | 2370 | Scripting Languages | 3 |
| J. | CSCI | 2381 | Cooperative Education - Computer and
Information Sciences, General (Capstone) | 3 |
| K. | CSCI | 2395 | Special Topics in Computer Information
Systems II | 3 |
| L. | DFTG | 1309 | Basic Computer-Aided Drafting | 3 |
| M. | DFTG | 2312 | Technical Illustration | 3 |

*Special Admission Requirement: Keyboarding or consent of instructor

WEB ADMINISTRATION SPECIALIZATION*

70 credit hours required to graduate

I. General Education Core - AAS **22 credit hours**

See page 45.

ECON 2301 and MATH 1324 are required for this program.

II. Technical Core **12 credit hours**

- | | | | | |
|----|------|------|--|---|
| A. | CSCI | 1325 | Introduction to Multimedia | 3 |
| B. | CSCI | 2340 | Project Development and Delivery | 3 |
| C. | CSCI | 2360 | Hypertext Markup Language (HTML) | 3 |
| D. | ENGL | 2311 | Technical Writing | 3 |

III. Major Courses 30 credit hours

A.	BCIS	2390	Software Engineering	3
B.	CNWT	1351	Introduction to Computer Networks	3
C.	CNWT	2280	Windows NT Server Installation, Implementation, and Support	3
D.	COSC	1415	JAVA for Non Programmers	4
E.	CSCI	1306	UNIX Operations System I	3
F.	CSCI	1380	Cooperative Education - Computer and Information Sciences, General (Capstone) . . .	3
G.	CSCI	2350	Computer Operating Systems	3
H.	CSCI	2370	Scripting Languages	3
I.	CSCI	2371	Web Authoring	3
J.	MRKG	1311	Principles of Marketing	3

IV. Electives 6 credit hours

A.	BCIS	2390	Software Engineering	3
B.	CSCI	1370	Introduction to Visual Basic Programming . . .	3
C.	CSCI	2305	Integrated Spreadsheet Applications	3
D.	CSCI	2310	Database Applications	3
E.	CSCI	2315	Desktop Publishing	3
F.	CSCI	2349	Advanced Visual Basic Programming	3
G.	CSCI	2381	Cooperative Education Computer and Information Sciences, General (Capstone) . . .	3
H.	CSCI	2395	Special Topics in Computer Information Systems II	3
I.	DFTG	1309	Basic Computer-aided Drafting	3
J.	DFTG	2312	Technical Illustration	3

*Special admission requirement: Keyboarding or consent of instructor

WEB DEVELOPER SPECIALIZATION*

70 credit hours required to graduate

I. General Education Core - AAS 22 credit hours

See page 45.
ECON 2301 and MATH 1324 are required for this program.

II. Technical Core 12 credit hours

A.	CSCI	1325	Introduction to Multimedia	3
B.	CSCI	2340	Project Development and Delivery	3
C.	CSCI	2360	Hypertext Markup Language (HTML)	3
D.	ENGL	2311	Technical Writing	3

III. Major Courses 33 credit hours

A.	BCIS	2390	Software Engineering	3
B.	COSC	1320	Structural Programming Using C++	3
C.	COSC	2315	Data Structure w/Object-Oriented C++	3
D.	COSC	2320	Object-Oriented Programming for Programmers with C++	3
E.	COSC	2330	JAVA for C++ Programmers	3
F.	CSCI	1306	UNIX Operating System I	3
G.	CSCI	1370	Introduction to Visual Basics Programming . . .	3
H.	CSCI	1380	Cooperative Education - Computer and Information Sciences, General (Capstone) . . .	3

I.	CSCI	2365	Advanced Multimedia Applications	3
J.	CSCI	2370	Scripting Languages	3
K.	CSCI	2375	Advanced Scripting Languages	3

IV. Electives 3 credit hours

A.	BCIS	2390	Software Engineering	3
B.	CSCI	2305	Integrated Spreadsheet Applications	3
C.	CSCI	2310	Database Applications	3
D.	CSCI	2315	Desktop Publishing	3
E.	CSCI	2381	Cooperative Education - Computer and Information Sciences, General (Capstone) . . .	3
F.	CSCI	2395	Special Topics in Computer Information Systems II	3
G.	DFTG	1309	Basic Computer-aided Drafting	3
H.	DFTG	2312	Technical Illustration	3

*Special admission requirement: Keyboarding or consent of instructor

BUSINESS MULTIMEDIA TECHNOLOGY CERTIFICATES*

Multimedia Presentation Technician 21 credit hours

A.	COSC	1300	Computer Essentials	3
B.	CSCI	1310	Introduction to Graphics	3
C.	CSCI	1315	Multimedia Presentations	3
D.	CSCI	1325	Introduction to Multimedia	3
E.	CSCI	1330	Instructional Design for Business and Education	3
F.	CSCI	1380	Cooperative Education - Computer and Information Sciences, General (Capstone) . . .	3
G.	CSCI	2340	Project Development and Delivery	3
H.	CSCI	2371	Web Authoring	3

Technology-Based Training Specialist 42 credit hours

A.	COSC	1300	Computer Essentials	3
B.	BCIS	1310	BASIC Programming	3
C.	CSCI	1310	Introduction to Graphics	3
D.	CSCI	1315	Multimedia Presentations	3
E.	CSCI	1325	Introduction to Multimedia	3
F.	CSCI	1330	Instructional Design for Business & Education	3
G.	CSCI	2325	Intermediate Multimedia Applications	3
H.	CSCI	2340	Project Development and Delivery	3
I.	CSCI	2360	Hypertext Markup Language (HTML)	3
J.	CSCI	2365	Advanced Multimedia Applications	3
K.	CSCI	2370	Scripting Languages	3
L.	CSCI	2371	Web Authoring	3
M.	DFTG	1391	Special Topics in Drafting	3
N.	CSCI	2381	Cooperative Education - Computer and Information Sciences, General (Capstone) . . .	3

Web Developer

42 credit hours

A.	BCIS	2390	Software Engineering	
or	COSC	2372	Object-Oriented Design . . . . .	.3
B.	COSC	1300	Computer Essentials . . . . .	.3
C.	COSC	1320	Structured Programming using C++ . . . . .	.3
D.	COSC	2315	Data Structures with Object-Oriented C++ . . . . .	.3
E.	COSC	2320	Object-Oriented Programming for Programmers with C++ . . . . .	.3
F.	COSC	2330	JAVA for C++ Programmers . . . . .	.3
G.	CSCI	1306	UNIX Operating System I . . . . .	.3
H.	CSCI	1325	Introduction to Multimedia . . . . .	.3
I.	CSCI	1370	Introduction to Visual Basic Programming . . . . .	.3
J.	CSCI	2340	Project Development and Delivery . . . . .	.3
K.	CSCI	2360	Hypertext Markup Language (HTML) . . . . .	.3
L.	CSCI	2370	Scripting Languages . . . . .	.3
M.	CSCI	2375	Advanced Scripting Language . . . . .	.3
N.	CSCI	2381	Cooperative Education - Computer and Information Sciences, General (Capstone) . . . . .	.3

*Special admission requirement: Keyboarding or consent of instructor

CHILD DEVELOPMENT

Also a Tech Prep Program

67 credit hours required to graduate

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

A developmental approach is emphasized which promotes optimal physical, social, emotional, and cognitive growth of children. Students learn management skills which allow them to provide quality programs in safe, nurturing environments.

The classroom learning experiences are supplemented by laboratory activities which promote observational skills and multi-cultural, non-sexist approaches to teaching. Students receive training in observation and evaluation procedures; practice skills necessary for planning, organizing, communicating, and supervising; and learn to work cooperatively with parents and community services.

The Child Development Associate (CDA) program provides performance-based training, assessment, and credentialing of child care 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.

REQUIREMENTS FOR ALL CHILD DEVELOPMENT STUDENTS

To participate in the Child Development Center and receive credit for the lab component of courses, the following requirements must be met:

1. Enroll in a CCCC child development course.
2. Within the first week of your first child development course, provide a copy of acceptable tuberculosis test results. Continuing students must submit acceptable tuberculosis results every two years.

3. Complete and sign a student record form as a contract to ensure the following:

- Verification that you have read and agree to abide by the Texas Minimum Standards for day care centers
- Verification that you have read and agree to follow the laboratory student guidelines
- Information provided to a criminal history check by the Texas Department of Protective and Regulatory Services
- Confirmation that confidentiality and professional discretion will be observed at all times
- Personal release for video-taping for instructional purposes

Our records should always contain current personal information. It is the student's responsibility to keep this information current.

Students need to pick up a child development registration packet at the Child Development Center Offices and the Child Development Lab Schools.

Tech Prep students who took collegiate-level courses in Child Development while in high school may elect to receive college credit by contacting a CCCC advisor. A petition for Tech Prep credit should be completed as soon as possible upon admission to CCCC.

CAREER OPPORTUNITIES

The Child Development degree and certificates are designed to provide the necessary preparation to work as a day care director, director of children's programs, or an educational director. The skills acquired will be directly applicable in a variety of facilities including:

- Child Care Centers
- Preschool Programs
- Family Day Homes
- Employer-Sponsored Child Care
- Church-Sponsored Child Care
- Hospital-Sponsored Child Care
- Before and After School Programs
- Community Center Programs
- Parent and Child Study Programs
- Teacher's Aide
- Director, Assistant Director, Manager, or Educational Coordinator in Children's Programs
- In-Home Care Giver or Nanny

I. General Education Core

22 credit hours

A.	COSC	1300	Computer Essentials . . . . .	.3
B.	ECON	1301	Introduction to Economics . . . . .	.3
C.	ENGL	1301	Composition/Rhetoric I . . . . .	.3
D.	HUMA	1301	Introduction to Humanities . . . . .	.3
E.	MATH	1332	Contemporary Mathematics . . . . .	.3
F.	PHED/DANC		Any Activity Course . . . . .	.1
G.	PSYC	2302	Applied Psychology . . . . .	.3
H.	SPCH	1311	Fundamentals of Speech Communications . . . . .	.3

II. Technical Core	23 credit hours
A. CDEC 1303	Family and the Community*3
B. CDEC 1311	Introduction to Early Childhood Education . .3
C. CDEC 1313	Curriculum Resources for Early Childhood Programs.3
D. CDEC 1318	Nutrition, Health and Safety3
E. CDEC 1319	Child Guidance3
F. CDEC 1370	Prevention of Child Abuse3
G. CDEC 2284	Cooperative Ed. in Child Development2
H. BUSG 2309	Small Business Management3

III. Major Core	19 credit hours
A. CDEC 1356	Emergent Literature for Early Childhood . .3
B. CDEC 1359	Children with Special Needs3
C. CDEC 1454	Child Growth and Development*4
D. CDEC 2326	Administration of Programs for Children I . .3
E. CDEC 2328	Administration of Programs for Children II .3
F. CDEC 2386	Internship-Child Development & Early Childhood (Capstone)3

IV. Electives	3 credit hours
A. CDEC 1317	Child Development Associate Training I . . .3
B. CDEC 1357	Math and Science for Early Childhood . . .3
C. CDEC 1358	Creative Arts for Early Childhood3
D. CDEC 1392	Special Topics in Child Development3
E. CDEC 2321	The Infant and Toddler3
F. CDEC 2322	Child Development Associate Training II . .3
G. CDEC 2324	Child Development Associate Training III . .3
H. CDEC 2341	The School-Age Child3
I. CDEC 2385	Cooperative Education in Child Development3

*Tech Prep courses which may have been completed in high school.

CHILD DEVELOPMENT CERTIFICATES

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

Early Childhood Administrator

I. First Semester	13 credit hours
A. CDEC 1311	Introduction to Early Childhood Education .3
B. CDEC 1318	Nutrition, Health, and Safety3
C. CDEC 1454	Child Growth and Development4
D. CDEC 2326	Administration of Programs for Children I . .3
II. Second Semester	10 credit hours
A. CDEC 1303	Family and the Community3
B. CDEC 1370	Prevention of Child Abuse3
C. CDEC 2166	Practicum—Child Development and Early Childhood—Provider/Assistant (Capstone)1
D. CDEC 2328	Admin. of Programs for Children II3

Early Childhood Educator

I. First Semester	13 credit hours
A. CDEC 1311	Introduction to Early Childhood Education .3
B. CDEC 1313	Curriculum Resources for Early Childhood Programs3
C. CDEC 1318	Nutrition, Health, and Safety3
D. CDEC 1454	Child Growth and Development4
II. Second Semester	10 credit hours
A. CDEC 1303	Family and the Community3
B. CDEC 1319	Child Guidance3
C. CDEC 1359	Children with Special Needs3
D. CDEC 2166	Practicum—Child Development and Early Childhood—Provider/Assistant (Capstone)1

Early Childhood Special Educator 20 credit hours

A. CDEC 1454	Child Growth and Development4
B. CDEC 1359	Children with Special Needs3
C. CDEC 1313	Curriculum Resources for Early Childhood Programs3
D. CDEC 1319	Child Guidance3
E. CDEC 1370	Prevention of Child Abuse3
F. CDEC 1318	Nutrition, Health and Safety3
G. CDEC 2166	Practicum—Child Development and Early Childhood—Provider/Assistant (Capstone) . .1

Infant and Toddler Educator 19 credit hours

A. CDEC 2321	The Infant and Toddler3
B. CDEC 1303	Family and the Community3
C. CDEC 1313	Curriculum Resources for Early Childhood Programs3
D. CDEC 1370	Prevention of Child Abuse3
E. CDEC 1318	Nutrition, Health and Safety3
F. CDEC 1359	Children with Special Needs3
G. CDEC 2166	Practicum—Child Development and Early Childhood—Provider/Assistant (Capstone) . .1

COMPUTER-AIDED DRAFTING AND DESIGN

64 to 70 credit hours depending on the specialization

High-tech industries are constantly creating new career opportunities in exciting, highly specialized fields. The degree opportunities in Computer-Aided Drafting and Design (CADD) provides both an educational foundation in computer-aided design and insight into current industry practices. Students in CCCC's intensive CADD hands-on training program are taught the skills a designer, draftsman, architect, or engineer needs for successful CADD operations. The Electronic Design Specialization provides an educational foundation in computer aided Printed Circuit Board (PCB) design. The Commercial Interior Design Specialization is an upcoming, fast emerging career field for CADD students, which prepares the student for a rewarding career. It will also provide the student with a strong foundation

in preparation for transfer to many four-year institutions.

Tech Prep students who completed college-level courses in Computer-Aided Drafting and Design while in high school may elect to receive college credit by contacting a CCCC advisor. A petition for Tech Prep credit should be completed as soon as possible upon admission to CCCC.

CAREER OPPORTUNITIES

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

- Aircraft Industry
- Architectural Firms
- Computer Centers
- Governmental Agencies
- Manufacturing Firms
- Research Organizations

COMPUTER-AIDED DRAFTING AND DESIGN

64 credit hours required to graduate

I. General Education Core - AAS 22 credit hours

See page 45.

MATH 1314 (or higher) and DFTG 1309 (substituted for COSC 1300) are required for this program.

II. Technical Core 15 credit hours

- A. CETT 1409 DC-AC Circuits 4
- B. MATH 1316 Trigonometry¹ 3
- C. PHYS 1401 General Physics I 4
- D. PHYS 1402 General Physics II 4

¹A higher level MATH course may be substituted.

III. Major Courses 15 credit hours

- A. DFTG 1305 Technical Drafting* 3
- B. DFTG 1352 Intermediate Computer-Aided Drafting 3
- C. DFTG 2332 Advanced Computer-Aided Drafting 3
- D. DFTG 2336 Computer-Aided Drafting Programming 3
- E. DFTG 2381 Cooperative Education-Drafting 3

*Tech Prep course which may have been completed in high school.

IV. Electives 12 credit hours

- A. DFTG 1171 Schematic Capture/Parts Library Data Base . 1
- B. DFTG 1172 Printed Circuit Board Layout and Routing . . 1
- C. DFTG 1317 Architectural Drafting-Residential 3
- D. DFTG 1321 Architectural Illustration 3
- E. DFTG 1348 Topographical Drafting 3
- F. DFTG 1354 Architectural Drafting-Commercial 3
- G. DFTG 1356 Descriptive Geometry 3
- H. DFTG 1380 Cooperative Education-Drafting 3
- I. DFTG 1391 Special Topics in Drafting 3
- J. DFTG 1392 Special Topics in Architectural Drafting 3
- K. DFTG 2310 Structural Drafting 3
- L. DFTG 2312 Technical Illustration 3
- M. DFTG 2340 Solid Modeling/Design 3
- N. DFTG 2350 Geometric Dimensioning and Tolerancing . . 3
- O. DFTG 2352 Mechanical and Electrical Systems 3

ARCHITECTURAL SPECIALIZATION

This specialization is being developed at this time. For information contact the program coordinator at 972.377.1689 or 972.377.1715.

COMMERCIAL INTERIOR DESIGN SPECIALIZATION

67 credit hours required to graduate

I. General Education Core - AAS 22 credit hours

See page 45.

II. Technical Core 12 credit hours

- A. BUSI 1301 Introduction to Business¹ 3
- B. DFTG 1305 Technical Drafting 3
- C. DFTG 1309 Basic Computer-Aided Drafting 3
- D. DFTG 1352 Intermediate Computer-Aided Drafting 3

¹BUSG 2309 may be substituted for BUSI 1301

III. Major Courses 21 credit hours

- A. ARTS 1311 Design I 3
- B. ARTS 1316 Drawing I 3
- C. ARTS 1317 Drawing II 3
- D. DFTG 1354 Architectural Drafting - Commercial 3
- E. INTD 1301 Applied Interior Design I 3
- F. INTD 2302 Applied Interior Design II 3
- G. INTD 2303 Applied Interior Design III 3

IV. Electives 12 credit hours

- A. ARTS 1303 Art History I 3
- B. ARTS 1304 Art History II 3
- C. ARTS 2366 Watercolor I 3
- D. BMGT 1370 Principles of Management 3
- E. BUSI 2301 Business Law 3
- F. DFTG 2312 Technical Illustration 3
- G. DFTG 2332 Advanced Computer-Aided Drafting 3
- H. DFTG 2336 Computer-Aided Drafting Programming 3
- I. INTD 7300 Cooperative Education I 3
- J. INTD 7305 Cooperative Education II 3
- K. MRKG 1311 Principles of Marketing 3

ELECTRONIC DESIGN SPECIALIZATION

67 credit hours required to graduate

I. General Education Core - AAS 22 credit hours

See page 45.

MATH 1314 (or higher) and DFTG 1309 (substituted for COSC 1300) are required for this program.

II. Technical Core 26 credit hours

- A. CETT 1325 Digital Fundamentals* 3
- B. CETT 1403 DC Circuits* 4
- C. CETT 1405 AC Circuits* 4
- D. CETT 1421 Electronic Fabrication 4
- E. CETT 1429 Solid State Devices* 4
- F. CETT 1457 Linear Integrated Circuits 4
- G. MATH 1316 Trigonometry 3

*Tech Prep courses which may have been completed in high school.

III. Major Courses	9 credit hours
A. DFTG 1358	Electrical/Electronics Drafting3
B. DFTG 2304	Printed Circuit Board Design3
C. DFTG 2356	Advanced Printed Circuit Board Design . . .3
D. DFTG 2381	Cooperative Education-Drafting3
IV. Electives	10 credit hours
A. DFTG 1171	Schematic Capture/Parts Library Data Base .1
B. DFTG 1172	Printed Circuit Board Layout and Routing .1
C. DFTG 1305	Technical Drafting3
D. DFTG 1352	Intermediate Computer-Aided Drafting3
E. DFTG 1380	Cooperative Education-Drafting3
F. DFTG 1394	Special Topics in Electrical/Electronic Drafting3
G. DFTG 2332	Advanced Computer-Aided Drafting3
H. DFTG 2336	Computer-Aided Drafting Programming . . .3

**COMPUTER-AIDED DRAFTING AND DESIGN
CERTIFICATES**

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

Computer-Aided Drafting and Design 30 credit hours

Major Courses 21 credit hours

A. DFTG 1305	Technical Drafting*3
B. DFTG 1309	Basic Computer-Aided Drafting*3
C. DFTG 1352	Intermediate Computer-Aided Drafting3
D. DFTG 1391	Special Topics in Drafting3
E. DFTG 2312	Technical Illustration3
F. DFTG 2332	Advanced Computer-Aided Drafting3
G. DFTG 2336	Computer-Aided Drafting Programming . . .3

Electives 9 credit hours

A. DFTG 1317	Architectural Drafting-Residential3
B. DFTG 1321	Architectural Illustration.3
C. DFTG 1348	Topographical Drafting3
D. DFTG 1354	Architectural Drafting-Commercial3
E. DFTG 1356	Descriptive Geometry3
F. DFTG 1380	Cooperative Education-Drafting3
G. DFTG 2310	Structural Drafting.3
H. DFTG 2312	Technical Illustration3
I. DFTG 2340	Solid Modeling/Design3
J. DFTG 2350	Geometric Dimensioning and Tolerancing .3
K. DFTG 2352	Mechanical and Electrical Systems3
L. DFTG 2381	Cooperative Education-Drafting3

AutoCAD 15 credit hours

A. DFTG 1309	Basic Computer-Aided Drafting3
B. DFTG 1352	Intermediate Computer-Aided Drafting3
C. DFTG 1391	Special Topics in Drafting3
D. DFTG 2332	Advanced Computer-Aided Drafting3
E. DFTG 2336	Computer-Aided Drafting Programming . . .3

Commercial Interior Design 30 credit hours

A. ARTS 1311	Design I3
B. ARTS 1316	Drawing I3
C. ARTS 1317	Drawing II3
D. DFTG 1305	Technical Drafting3
E. DFTG 1309	Basic Computer-Aided Drafting3
F. DFTG 1352	Intermediate Computer-Aided Drafting3
G. DFTG 1354	Architectural Drafting-Commercial3
H. INTD 1301	Applied Interior Design I3
I. INTD 2302	Applied Interior Design II3
J. INTD 2303	Applied Interior Design III3

**Tech Prep courses which may have been completed in high school.*

Electronic Design Automation 38 credit hours

A. CETT 1325	Digital Fundamentals*3
B. CETT 1403	DC Circuits*4
C. CETT 1405	AC Circuits*4
D. CETT 1421	Electronic Fabrication4
E. CETT 1429	Solid State Devices*4
F. CETT 1457	Linear Integrated Circuits4
G. DFTG 1309	Basic Computer-Aided Drafting3
H. DFTG 1358	Electrical/Electronics Drafting3
I. DFTG 1394	Special Topics in Electronic Drafting3
J. DFTG 2304	Printed Circuit Board Design3
K. DFTG 2356	Advanced Printed Circuit Board Design . . .3

**Tech Prep courses which may have been completed in high school.*

ENHANCED SKILLS CERTIFICATE

The Enhanced Skills Certificate in Computer-Aided Drafting and Design provides additional training in specific job skills which supplement those acquired within the curriculum for an AAS degree in Computer-Aided Drafting and Design. 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.

Enhanced Skills Certificate Requirements 9 credit hours

A. DFTG 2312	Technical Illustration3
B. DFTG 2336	Computer-Aided Drafting Programming . . .3
C. DFTG 2340	Solid Modeling/Design3

COMPUTER INFORMATION SYSTEMS

BUSINESS PROGRAMMING

64 credit hours required to graduate

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

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

- **Business Programming:** use of COBOL in a business environment is emphasized
- **Financial Skills:** accounting and economics courses are used to strengthen the background of the graduate
- **Management Skills:** information systems management, systems analysis, database management systems, applied psychology, and technical writing are used to enhance effective management decisions
- **Technical Skills:** operating systems, data structures, and statistics are presented to further technical competency

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

CAREER OPPORTUNITIES

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

- **Business Programmer:** produces new business programs and modifies existing ones
- **Computer Operator:** controls and monitors mainframe computer functions
- **Database Manager:** designs and manages business data systems
- **Production Analyst:** maintains computer security, computer libraries, and business forms and equipment.

I. General Education Core - AAS 22 credit hours

See page 45.
 MATH 1324 is required for this program.
 PSYC 2301 should be taken by students planning to transfer.

II. Technical Core 12 credit hours

A.	CSCI	1305	Microcomputer Concepts* . . . . .	.3
B.	CSCI	1370	Introduction to Visual Basic Programming . . .	.3
C.	CSCI	2305	Integrated Spreadsheet Applications . . . . .	.3
D.	CSCI	2310	Database Applications . . . . .	.3

*Tech Prep course which may have been completed in high school.

III. Major Courses 24 credit hours

A.	ACCT	2301	Principles of Accounting I . . . . .	.3
B.	ACCT	2302	Principles of Accounting II . . . . .	.3
C.	BCIS	1332	COBOL I . . . . .	.3
D.	BCIS	2332	COBOL II . . . . .	.3
E.	CSCI	2350	Computer Operating Systems . . . . .	.3
F.	ENGL	2311	Technical Writing . . . . .	.3
G.	MATH	1325	Calculus for Business & Economics . . . . .	.3
H.	CSCI	2381	Cooperative Education - Computer and Information Services, General (Capstone) . . .	.3

IV. Electives 6 credit hours

A.	BCIS	1310	BASIC Programming . . . . .	.3
B.	BCIS	2390	Software Engineering . . . . .	.3
C.	BUSI	1301	Introduction to Business . . . . .	.3
D.	CNWT	1352	Introduction to Telecommunications . . . . .	.3
E.	COSC	1320	Structured Programming Using C++ . . . . .	.3
F.	CSCI	1380	Cooperative Education - Computer and Information Services, General (Capstone) . . .	.3
G.	COSC	1415	Java for Non-Programmers . . . . .	.4
H.	COSC	1420	Introduction to Programming with C++ . . .	.4
I.	COSC	2325	Assembly Language . . . . .	.3
J.	CSCI	2315	Desktop Publishing . . . . .	.3
K.	CSCI	2335	Data Structures for Business . . . . .	.3
L.	CSCI	2349	Advanced Visual Basic Programming . . . . .	.3
M.	CSCI	2390	Special Topics in CSCI I . . . . .	.3
N.	CSCI	2395	Special Topics in CSCI II . . . . .	.3
O.	DFTG	1309	Basic Computer-Aided Drafting . . . . .	.3

*Tech Prep course which may have been completed in high school.

COMPUTER SYSTEMS

64 credit hours required to graduate

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

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

- Microcomputer Applications
- Financial Skills
- Business Programming
- Management Skills
- Technical Skills

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

CAREER OPPORTUNITIES

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

- Manufacturing Firms
- Computer Centers
- Governmental Agencies
- Accounting Firms
- Microcomputer Support Firms
- Transportation Industry
- Financial Firms

I. General Education Core - AAS 22 credit hours

See page 45.

MATH 1324 is required for this program.

PSYC 2301 should be taken by students planning to transfer.

II. Technical Core 12 credit hours

A.	CSCI	1305	Microcomputer Concepts*	3
B.	CSCI	1370	Introduction to Visual Basic Programming . .	3
C.	CSCI	2305	Integrated Spreadsheet Applications	3
D.	CSCI	2310	Database Applications	3

*Tech Prep course which may have been completed in high school.

III. Major Courses 15 credit hours

A.	BCIS	2390	Software Engineering	3
B.	CSCI	2350	Computer Operating Systems	3
C.	CSCI	2349	Advanced Visual Basic Programming	3
D.	CSCI	2381	Cooperative Education - Computer and Information Services, General (Capstone) . .	3
E.	ENGL	2311	Technical Writing	3

IV. Electives 15 credit hours

A.	ACCT	2301	Principles of Accounting I	3
B.	ACNT	1303	Introduction to Accounting I	3
C.	BCIS	1310	BASIC Programming	3
D.	BCIS	1332	COBOL I	3
F.	BCIS	2332	COBOL II	3
E.	BMGT	1370	Principles of Management	3
G.	COSC	1320	Structured Programming Using C++	3
H.	COSC	1415	JAVA for Non-Programmers	4
I.	COSC	1420	Introduction to Programming with C++ . .	4
J.	COSC	2325	Assembly Language	3
K.	CSCI	1306	UNIX Operating System I	3
L.	CSCI	1380	Cooperative Education - Computer and Information Services, General (Capstone) . .	3
M.	CSCI	2315	Desktop Publishing	3
N.	CSCI	2320	Microsoft Office	3
O.	CSCI	2390	Special Topics in Computer Information Systems I	3
P.	CSCI	2395	Special Topics in Computer Information Systems II	3
Q.	DFTG	1309	Basic Computer-Aided Drafting	3

MICROCOMPUTER APPLICATIONS

64 credit hours required to graduate

The development and use of computers in business and industry has created a need for many data processing technicians who are proficient in business programming languages, as well as a variety of computer application packages.

The United States Office of Technology Assessment estimates that by the year 2000, 80 percent of all jobs will be computer-related.

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

- **Business Applications:** fluency in the use of dBASE, Lotus 1-2-3, Symphony, word processing, and desktop publishing software is emphasized
- **Technical Skills:** operating systems, data structures, networking, telecommunications, and microcomputer concepts courses are used to enhance technical competency
- **Management Skills:** systems analysis and design, applied psychology, and database design techniques are used to enhance effective management decisions.

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

CAREER OPPORTUNITIES

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

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

- **Database (dBASE) programmer:** using the latest database applications programs to design and maintain business data
- **PC Support Specialist:** business problem solving using a variety of micro-application packages
- **Micro Programmer:** design new programs and modify existing programs using microcomputer business languages
- **PC Service Representative:** support networking and the micro-telecommunications industry

I. General Education Core - AAS 22 credit hours

See page 45.

MATH 1324 is required for this program.

PSYC 2301 should be taken by students planning to transfer.

II. Technical Core 12 credit hours

A.	CSCI	1305	Microcomputer Concepts*	3
B.	CSCI	1370	Introduction to Visual Basic Programming . .	3
C.	CSCI	2305	Integrated Spreadsheet Applications	3
D.	CSCI	2310	Database Applications	3

III. Major Courses 18 credit hours

A.	ACCT	2301	Principles of Accounting I	3
B.	CSCI	1310	Introduction to Graphics	3
C.	CSCI	1325	Introduction to Multimedia	3
D.	CSCI	2315	Desktop Publishing	3
E.	CSCI	2325	Intermediate Multimedia Applications	3
F.	OFAD	1331	Beginning Word Processing	3
G.	CSCI	2381	Cooperative Education - Computer and Information Services, General (Capstone) . .	3

IV. Electives 9 credit hours

A.	BCIS	1310	BASIC Programming	3
B.	BCIS	1332	COBOL I	3
C.	BCIS	2332	COBOL II	3

D.	BCIS	2390	Software Engineering . . . . .	.3
E.	BUSI	1370	Principles of Management . . . . .	.3
F.	BUSI	2372	Organizational Behavior . . . . .	.3
G.	CNWT	1352	Introduction to Telecommunications . . . . .	.3
H.	COSC	1415	JAVA for Non-Programmers . . . . .	.4
I.	CSCI	1306	UNIX Operating System I . . . . .	.3
J.	CSCI	1380	Cooperative Education - Computer and Information Services, General (Capstone) . . .	.3
K.	CSCI	2349	Advanced Visual Basic Programming . . . . .	.3
L.	CSCI	2350	Computer Operating Systems . . . . .	.3
M.	CSCI	2359	Visual Basic for Applications . . . . .	.3
N.	CSCI	2390	Special Topics in CSCI I . . . . .	.3
O.	CSCI	2395	Special Topics in CSCI II . . . . .	.3

*Tech Prep course which may have been completed in high school.

Visual Basic Programming		13 credit hours	
A.	COSC 1420	Introduction to Programming with C++ ² . . .	.4
B.	CSCI 1380	Cooperative Education - Computer and Information Services, General (Capstone) . .	.3
C.	CSCI 2349	Advanced Visual Basic Programming . . . . .	.3
D.	CSCI 2359	Visual Basic for Applications . . . . .	.3

*Tech Prep courses which may have been completed in high school.

¹May substitute BCIS 1332.

²May substitute COSC1415.

³May substitute BCIS 2332.

**COMPUTER INFORMATION SYSTEMS
INSTITUTIONAL CERTIFICATES**

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

**COMPUTER SYSTEMS CERTIFICATE WITH
SPECIALIZATIONS 24-27 credit hours**

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

I. Technical Core 12 credit hours

A.	COSC	1300	Computer Essentials* . . . . .	.3
B.	CSCI	1305	Microcomputer Concepts* . . . . .	.3
C.	CSCI	1370	Introduction to Visual Basic Programming ¹ .	.3
D.	CSCI	2310	Database Applications . . . . .	.3

II. Specializations 12-15 credit hours

Computer Applications 12 credit hours

A.	CSCI	1325	Introduction to Multimedia . . . . .	.3
B.	CSCI	2305	Integrated Spreadsheet Applications* . . . . .	.3
C.	CSCI	2315	Desktop Publishing . . . . .	.3
D.	CSCI	2381	Cooperative Education - Computer and Information Services, General (Capstone) . .	.3

Information Systems Management 15 credit hours

A.	BCIS	2390	Software Engineering . . . . .	.3
B.	CSCI	1325	Introduction to Multimedia . . . . .	.3
C.	CSCI	2305	Integrated Spreadsheet Applications . . . . .	.3
D.	CSCI	2349	Advanced Visual Basic Programming ³ . . . . .	.3
E.	CSCI	2381	Cooperative Education - Computer and Information Services, General (Capstone) . .	.3

C++ Programming 21-23 credit hours

A.	COSC	1320	Structured Programming using C++ ¹ . . . . .	.3
B.	COSC	2315	Data Structures with Object Oriented C++ . .	.3
C.	COSC	2320	Object-Oriented Programming for Programmers with C++ ² . . . . .	.3
D.	COSC	2325	Assembly Language Programming . . . . .	.3
E.	COSC	2372	Object-Oriented Design . . . . .	.3
F.	COSC	2374	Windows Programming with Visual C++ . . .	.3
G.	Elective		. . . . .	.3

Choose one of the following:

BCIS	2390	Software Engineering
COSC	2330	JAVA for C++ Programmers
COSC	2390	Advanced Topics in Computer Science

¹May substitute COSC 1420

²May substitute COSC 2420

Computer Operating Systems 21-24 credit hours

A.	BCIS	2390	Software Engineering . . . . .	.3
B.	COSC	1300	Computer Essentials* . . . . .	.3
C.	COSC	1320	Structured Programming using C++ ¹ . . . . .	.3
D.	COSC	2325	Assembly Language . . . . .	.3
E.	CSCI	1305	Microcomputer Concepts* . . . . .	.3
F.	CSCI	2350	Computer Operating Systems . . . . .	.3
G.	CSCI	2381	Cooperative Education-Computer and Information Sciences, General (Capstone) . .	.3

*Tech Prep courses which may have been completed in high school.

¹May substitute COSC 1415 or COSC 1420

COMPUTER NETWORK TECHNOLOGY

72 credit hours required to graduate

The Computer Network Technology program is designed to prepare students to perform tasks in network technology relating to network management, technical support, hardware/software installation, and equipment repair. The program graduate would be able to assemble

computers based on customer requirements, install all network wiring and interfaces at customer sites, install and debug network software, and maintain network hardware and software. The student would also be qualified to take Novel/Microsoft certification examinations upon completion of the AAS programs.

The program consists of 72 total credit hours, with 28 hours in the major, 22 hours in the general education core, 14 hours in the technical core, and eight hours of electives. Students seeking earlier employment would be able to exit the program within a year with a certificate in one of these speciality areas: Network Technology, Network Technology Hardware, or Network Technology Software.

CAREER OPPORTUNITIES

Over the past decade, occupational data gathered at the federal, state, and local levels have projected an escalating demand for computer technicians. Network systems technician was selected by the Texas Innovation Network System and the State Board of Education as an emerging occupation, and regionally targeted by INTERLINK (the North Central Texas Quality Workforce Planning Committee) for potential growth and demand. Students seeking earlier employment would be able to exit the program within a year with a certificate in one of three specialty areas: network management, technical support, hardware/software installation, and equipment repair.

I. General Education Core - AAS 22 credit hours

- See page 45.
- Higher mathematics courses may be needed.
- May substitute CSCI 1305, ECON 2301 and BUSI 1371.

II. Technical Core 14 credit hours

- A. CETT 1409 DC-AC Circuits*4
- B. CETT 1445 Microprocessor*4
- C. ENGL 2311 Technical Writing3
- D. MATH 2312 Pre-Calculus for Math and Science3

III. Major Courses 28 credit hours

- A. CNWT 1351 Introduction to Computer Networking3
- B. CNWT 1352 Introduction to Telecommunications3
- C. CNWT 1354 Managing Local Area Networks3
- D. CNWT 1453 Wide Area Data Networking4
- E. CNWT 2431 Network Hardware4
- F. CNWT 2432 Computer Communication Hardware4
- G. CPMT 1411 Introduction to Computer Maintenance¹4
- H. INTC 1307 Electronic Test Equipment3

*These Tech Prep courses may have been taken in high school.

¹Enhanced Tech Prep Course

IV. Electives 8 credit hours

- A. CETT 1421 Electronic Fabrication4
- B. CNWT 2190 Selected Topics I1
- C. CNWT 2210 Windows 98 Implementation & Support2
- D. CNWT 2215 Windows NT Workstation Installation, Implementation & Support2

- E. CNWT 2223 Windows NT SQL Server System Administration2
- F. CNWT 2224 Windows NT SMS Server Implementation & Support2
- G. CNWT 2225 Windows NT Exchange Server Implementation & Support2
- H. CNWT 2273 Windows NT IIS Implementation & Support2
- I. CNWT 2280 Windows NT Server Installation, Implementation & Support2
- J. CNWT 2281 Internetworking TCP/IP2
- K. CNWT 2462 Managing Microsoft Windows NT4
- L. CNWT 2471 Novell Network Installation & Troubleshooting4
- M. CNWT 2490 Selected Topics II4
- N. CNWT 7300 Cooperative Education I3
- O. CNWT 7305 Cooperative Education II3
- P. EECT 2433 Telephone Systems4
- Q. LOTT 1401 Introduction to Fiber Optics4
- R. LOTT 2440 Microwave Fundamentals4

COMPUTER NETWORK TECHNOLOGY CERTIFICATES

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

Computer Network Technology 28 credit hours

- A. CNWT 1351 Introduction to Computer Networking*3
- B. CNWT 1352 Introduction to Telecommunications3
- C. CNWT 1354 Managing Local Area Networks3
- D. CNWT 1453 Wide Area Data Networking4
- E. CNWT 2431 Network Hardware4
- F. CNWT 2432 Computer Communications Hardware4
- G. CPMT 1411 Introduction to Computer Maintenance*4
- H. INTC 1307 Electronic Test Equipment3

*Tech Prep course which may have been completed in high school.

Electives 8 credit hours

- A. CETT 1421 Electronic Fabrication4
- B. CNWT 2190 Selected Topics I1
- C. CNWT 2210 Windows 98 Implementation & Support2
- D. CNWT 2215 Windows NT Workstation Installation, Implementation & Support2
- E. CNWT 2223 Windows NT SQL Server System Administration2
- F. CNWT 2224 Windows NT SMS Server Implementation & Support2
- G. CNWT 2225 Windows NT Exchange Server Implementation & Support2
- H. CNWT 2273 Windows NT IIS Implementation & Support2
- I. CNWT 2280 Windows NT Server Installation, Implementation, & Support2
- J. CNWT 2281 Internetworking TCP/IP2

K.	CNWT	2462	Managing Microsoft Windows NT	4
L.	CNWT	2490	Selected Topics II	4
M.	EECT	2433	Telephone Systems	4
N.	LOTT	1401	Introduction to Fiber Optics	4
O.	LOTT	2440	Microwave Fundamentals	4

Computer Network Technology Hardware 15 credit hours

A.	CNWT	2431	Network Hardware	4
B.	CNWT	2432	Computer Communication Hardware	4
D.	CPMT	1411	Introduction to Computer Maintenance*	4
C.	INTC	1307	Electronic Test Equipment	3

*Tech Prep course which may have been completed in high school.

Electives 8 credit hours

A.	CETT	1421	Electronic Fabrication	4
B.	EECT	2433	Telephone Systems	4
C.	LOTT	1401	Introduction to Fiber Optics	4
D.	LOTT	2440	Microwave Fundamentals	4

Computer Network Technology Software 13 credit hours

A.	CNWT	1351	Introduction to Computer Networking	3
B.	CNWT	1352	Introduction to Telecommunications	3
C.	CNWT	1354	Managing Local Area Networks	3
D.	CNWT	1453	Wide Area Data Networking	4

Electives 8 credit hours

A.	CNWT	2210	Windows 98 Implementation & Support	2
B.	CNWT	2215	Windows NT Workstation Installation, Implementation & Support	2
C.	CNWT	2223	Windows NT SQL Server System Administration	2
D.	CNWT	2224	Windows NT SMS Server Implementation & Support	2
E.	CNWT	2225	Windows NT Exchange Server Implementation & Support	2
F.	CNWT	2273	Windows NT IIS Implementation & Support	2
G.	CNWT	2280	Windows NT Server Installation, Implementation, & Support	2
H.	CNWT	2281	Internetworking TCP/IP	2
I.	CNWT	2462	Managing Microsoft Windows NT	4
J.	CNWT	2471	Novell Network Installation and Troubleshooting	4

DENTAL HYGIENE

72 credit hours required to graduate

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.

The CCCC Dental Hygiene program prepares the graduate to perform clinical procedures and dental nutritional counseling, identify potential health problems, and understand the physical and clinical aspects of treatment.

The student is awarded an Associate of Applied Science Degree upon successful completion of the program. The graduate is eligible for national and regional examinations.

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.

ACCREDITATION

The program in dental hygiene is accredited by the Commission on Dental Accreditation and has been granted the accreditation status of accreditation eligible. The Commission is a specialized accrediting body recognized by the Department of Education.

SPECIAL ADMISSION REQUIREMENTS

- Proof of high school graduation or GED
 - Complete CCCC reading, writing and mathematics assessments.
 - GPA of 2.5 or greater on all courses applicable to the dental hygiene program
 - Official copies of all college transcripts
 - Complete pre-entrance course requirements with a GPA of 2.0
 - Complete the PSB exam with a satisfactory result
 - A handwritten, one- to two-page essay that discusses why dental hygiene has been selected as a profession
 - Two reference forms: one from an employer and one from an educator
- Admission is selective. Admission to the college does not guarantee admission to the dental hygiene program.

Registration by permission only. Information and applications may be obtained from the Health Science, Physical Education, and Child Development Office.

I. Pre-Entrance Requirements 12 credit hours

A.	BIOL	2401	Anatomy and Physiology I	4
B.	BIOL	2402	Anatomy and Physiology II	4
C.	CHEM	1405	Introduction to Chemistry I	4

II. First Semester 14 credit hours

A.	BIOL	2420	Microbiology	4
B.	DENH	1301	Clinical Practice I	3
C.	DENH	1413	Oral Anatomy, Embryology, Histology	4
D.	ENGL	1301	Composition and Rhetoric I	3

III. Second Semester 17 credit hours

A.	DENH	1201	Principles of Nutrition	2
B.	DENH	1311	Oral Radiology	3
C.	DENH	1402	Clinical Practice II	4
D.	DENH	2210	Pharmacology	2
E.	DENH	2315	Dental Materials	3
F.	PSYC	2315	General Psychology	3

IV. Third Semester	15 credit hours
A. DENH 2310	Oral Pathology3
B. DENH 2311	Periodontics3
C. DENH 2403	Community Dental Health4
D. DENH 2501	Clinical Practice III5

V. Fourth Semester	14 credit hours
A. DENH 2312	Oral Medicine (Capstone)3
B. DENH 2502	Clinical Practice IV5
C. SOCI 1301	Introduction to Sociology3
D. SPCH 1311	Fundamentals of Speech Communication . . .3

NOTE: Biology and Mathematics courses must have been completed within the last five years to be considered toward degree requirements.

DIETARY MANAGER CERTIFICATE

Also see Biology for Nutrition Courses

The curriculum is approved by the Dietary Manager's Association. Students will be prepared to test for certification by DMA to be designated a Certified Dietary Manager upon successful completion of the certification exam.

CAREER OPPORTUNITIES

Health care food services supervisor for hospitals, nursing homes and other facilities.

SPECIAL ADMISSIONS REQUIREMENTS

- High school diploma or GED certificate
- Completed admissions procedure packet

Registration is by permission only. Additional information and applications may be obtained from the admissions office or from the Mathematics and Natural Sciences division office.

Dietary Manager Certificate	15 credit hours
A. DITA 1400	Dietary Manager I4
B. DITA 1401	Dietary Manager II4
C. DITA 1366	Practicum-Dietitian Assistant I3
D. DITA 2467	Practicum-Dietitian Assistant II4

DRAFTING

See Computer-Aided Drafting & Design

ELECTRONIC TECHNOLOGY AND ELECTRONIC ENGINEERING TECHNOLOGY

ELECTRONIC TECHNOLOGY

Also a Tech Prep Program

Graduates of the Electronic Technology degree program will receive training in one of four specialized areas:

- **General Electronic Specialization:** A broad-base training program covering several diversified areas in modern electronics that include telecommunications, computer technology, avionics, robotics, and automated manufacturing.
- **Telecommunications Specialization:** A training program developed for the telecommunications industry with strong support and interaction from companies such as Northern Telecom, MCI, DSC, Southwestern Bell, Alcatel, Ericsson, Andrews, EDS, and other telecommunications companies. This program concentrates on theory, design, troubleshooting and repair of processor-controlled telecommunications equipment used in the control, transmission, and reception of audio, video, and data signals, including telemetry using various mediums such as wire, wireless, and fiber.
- **Computer Maintenance Specialization:** This program trains the student in the theory, application, modification, and repair of microcomputers. Emphasis is placed on diagnostic tools, test equipment, and providing hands-on practical experience to the student. Modifications include upgrading and interfacing for various control operations.
- **Instrumentation Specialization:** The student is trained in the theory, modification, application and repair of electronic equipment systems used for industrial applications that include manufacturing, materials handling, transportation, mining, telemetry, and tracking. Methods and devices covered include, servomechanisms, process control, programmable logic controllers, micro controllers, and optoelectronics.

ELECTRONIC ENGINEERING TECHNOLOGY

Graduates of the Electronic Engineering Technology degree program will receive training in several diversified areas of electronics. The emphasis of this program will be the application of mathematical theorems and applied physics toward the design and analysis of electronic circuits. Students will be exposed to a combination of classroom theory and hands-on laboratory design and analysis experiments.

ELECTRONIC TECHNOLOGY AND ELECTRONIC ENGINEERING TECHNOLOGY

The curriculum includes software design and simulation packages that students use in all courses, programmable graphing calculators that interface with equipment as well as other innovative methods of instruction. Program curriculum and laboratory equipment have been formally evaluated and endorsed by an advisory committee consisting of members of the electronics industry.

Articulation agreements allow the student to transfer their completed program into several four-year institutions toward a baccalaureate degree. Students planning transfers should check with a CCCC academic advisor.

CCCC is a member of the Texas Association of Schools of Engineering Technology and the Texas Technical Society. We are also a certified testing site for the ISCET exam, the FCC exam, and the MECP exam.

Capstone: Comprehensive examination upon completion of the AAS degree.

CAREER OPPORTUNITIES

Trained electronic technicians and electronic engineering technicians are in high demand in our service area. Industry at present has a shortage of over 3,000 technicians and forecasts this to increase over the next decade.

Students completing the Electronic Technology or Electronic Engineering Technology degree program will receive quality training that will provide career opportunities in areas such as:

- Telecommunications
- Computer Systems Applications
- Semiconductor Wafer Fabrication
- Advanced Manufacturing Equipment Applications
- Avionics and Space Communications
- Biomedical Applications and Design
- Printed Circuit Board Design and Manufacturing
- Laser and Fiber Optics Applications

ELECTRONIC TECHNOLOGY

I. General Education Core - AAS 22 Credit Hours Minimum

See page 45.

MATH 1314 (or higher) is required for this program

ECON 2301/2302 (substituted for ECON 1301) may be used for this program.

II. Technical Core 9 credit hours

- A. DFTG 1358 Electronic PCB Drafting3
- B. ENGL 2311 Technical Writing3
- C. MATH 1316 Trigonometry3

III. Specializations

Electronic Technology 31 credit hours

68 credit hours required to graduate

- A. CETT 1325 Digital Fundamentals*3
- B. CETT 1403 DC Circuits*4
- C. CETT 1405 AC Circuits*4
- D. CETT 1421 Electronic Fabrication4
- E. CETT 1429 Solid State Devices4
- F. CETT 1457 Linear Integrated Circuits4
- G. CSIR 1444 General Communications Circuits4
- H. ELMT 2437 Electronic Troubleshooting, Service, and Repair4

**Tech Prep courses which may have been completed in high school.*

Electives 6 credit hours minimum

To be selected from courses in CETT, CPMT, EECT, and LOTT that are not listed above.

Computer Maintenance Electronic Technology 31 credit hours

67 credit hours required to graduate

- A. CETT 1421 Electronic Fabrication4
- B. CETT 1425 Digital Fundamentals*4
- C. CETT 1431 Technical Programming4
- D. CETT 1445 Microprocessor*4
- E. CETT 1457 Linear Integrated Circuits4

- E. CPMT 1411 Introduction to Computer Maintenance* . . .4
- G. CPMT 1443 Microcomputer Architecture4
- H. CPMT 2337 Microcomputer Interfacing3

**These Tech Prep courses may have been taken in high school.*

Electives 6 credit hours minimum

To be selected from courses in CETT, CPMT, EECT, and LOTT that are not listed above.

Instrumentation Electronic Technology 29 credit hours

70 credit hours required to graduate

- A. CETT 1325 Digital Fundamentals*3
- B. CETT 1403 DC Circuits*4
- C. CETT 1405 AC Circuits*4
- D. CETT 1429 Solid State Devices*4
- E. CETT 2333 Digital Computer Circuits3
- F. ELMT 1301 Basic Programmable Logic Controllers3
- G. ELMT 2437 Electronic Troubleshooting, Service & Repair4
- H. INMT 1447 Industrial Automation4

**These Tech Prep courses may have been taken in high school.*

Electives 6 credit hours

- A. CETT 1431 Solid State Circuits4
- B. CETT 2439 Amplifier Analysis4
- C. CPMT 1443 Microcomputer Architecture4
- D. ENTC 1380 Cooperative Education - Engineering Technology/Technician, General3
- E. ENTC 2380 Cooperative Education - Engineering Technology/Technician, General3
- F. LOTT 1401 Introduction to Fiber Optics4

ENHANCED SKILLS CERTIFICATE

The Enhanced Skills Certificate in Electronic Technology provides additional training in specific job skills that supplement those acquired within the curriculum for an AAS degree in Electronic Technology. Students will have an opportunity to acquire those employment-related skills while completing the AAS degree requirements or subsequent to earning their AAS in Electronic Technology.

Enhanced Skills Certificate Requirements 10 credit hours

- A. CETT 2333 Digital Computer Circuits3
- B. ELMT 1301 Basic Programmable Logic Controllers3
- C. INMT 1447 Industrial Automation4

ELECTRONIC TECHNOLOGY CERTIFICATES

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

Electronic Technology 31 credit hours

- A. CETT 1325 Digital Fundamentals*3
- B. CETT 1403 DC Circuits*4
- C. CETT 1405 AC Circuits*4
- D. CETT 1421 Electronic Fabrication4

E.	CETT	1429	Solid State Devices . . . . .	.4
F.	CETT	1457	Linear Integrated Circuits . . . . .	.4
G.	CSIR	1444	General Communications Circuits . . . . .	.4
H.	ELMT	2437	Electronic Troubleshooting, Service & Repair . . . . .	.4

*Tech Prep courses which may have been completed in high school.

Computer Maintenance 31 credit hours

A.	CETT	1421	Electronic Fabrication . . . . .	.4
B.	CETT	1425	Digital Fundamentals* . . . . .	.4
C.	CETT	1431	Technical Programming . . . . .	.4
D.	CETT	1445	Microprocessor* . . . . .	.4
E.	CETT	1457	Linear Integrated Circuits . . . . .	.4
F.	CPMT	1411	Introduction to Computer Maintenance . . .	.4
G.	CPMT	1443	Microcomputer Architecture . . . . .	.4
H.	CPMT	2337	Microcomputer Interfacing . . . . .	.3

*These Tech Prep courses may have been taken in high school.

Instrumentation 33 credit hours

A.	CETT	1325	Digital Fundamentals* . . . . .	.3
B.	CETT	1403	DC Circuits* . . . . .	.4
C.	CETT	1405	AC Circuits* . . . . .	.4
D.	CETT	1429	Solid State Devices* . . . . .	.4
E.	CETT	1457	Linear Integrated Circuits . . . . .	.4
F.	CETT	2337	Digital Computer Circuits . . . . .	.3
G.	ELMT	1301	Basic Programmable Logic Controllers . . .	.3
H.	ELMT	2437	Electronic Troubleshooting, Service & Repair . . . . .	.4
I.	INMT	1447	Industrial Automation . . . . .	.4

*These Tech Prep courses may have been taken in high school.

ELECTRONIC ENGINEERING TECHNOLOGY

67 credit hours required to graduate

I. General Education Core - AAS 22 Credit Hours Minimum

See page 45.

MATH 1314 (or higher) is required for this program

ECON 2301/2302 (substituted for ECON 1301) may be used for this program.

II. Technical Core 9 credit hours

A.	DFTG	1358	Electronic PCB Drafting . . . . .	.3
B.	ENGL	2311	Technical Writing . . . . .	.3
C.	MATH	1316	Trigonometry . . . . .	.3

III. Major Courses 24 credit hours

A.	CETT	1403	DC Circuits* . . . . .	.4
B.	CETT	1405	AC Circuits* . . . . .	.4
C.	CETT	1425	Digital Fundamentals* . . . . .	.4
D.	CETT	1445	Microprocessor . . . . .	.4
E.	CETT	1457	Linear Integrated Circuits . . . . .	.4
F.	EECT	2433	Telephone Systems . . . . .	.4

*These Tech Prep courses may have been taken in high school.

IV. Electives 6 credit hours minimum

A.	CETT	1409	DC-AC Circuits	
B.	CPMT	1411	Introduction to Computer Maintenance . . .	.4
C.	CPMT	2337	Microcomputer Interfacing . . . . .	.3
D.	EECT	1380	Cooperative Education - Electrical, Electronic & Communications Engineering Technology . . . . .	.3
E.	EECT	1381	Cooperative Education - Electrical, Electronic & Communications Engineering Technology . . . . .	.3
F.	EECT	1391	Special Topics in Electrical, Electronic & Communication Engineering . . . . .	.3
G.	EECT	1491	Special Topics in Electrical, Electronic & Communication Engineering . . . . .	.4
H.	INTC	1305	Introduction to Electronic Instrumentation .	.3
I.	LOTT	2440	Microwave Fundamentals . . . . .	.4

ELECTRONIC ENGINEERING TECHNOLOGY CERTIFICATE

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

Electronic Engineering Technology 30 credit hours

A.	CETT	1403	DC Circuits* . . . . .	.4
B.	CETT	1405	AC Circuits* . . . . .	.4
C.	CETT	1425	Digital Fundamentals* . . . . .	.4
D.	CETT	1445	Microprocessor . . . . .	.4
E.	CETT	1457	Linear Integrated Circuits . . . . .	.4
F.	CETT	2337	Microcomputer Interfacing . . . . .	.3
G.	MATH	2312	Pre-Calculus for Math & Science ¹ . . . . .	.3
H.	MATH	2413	Calculus I . . . . .	.4

*These Tech Prep courses may have been taken in high school.

¹Higher level mathematics course may be used.

EMERGENCY MEDICAL SERVICES CERTIFICATE

Also see Phlebotomy Certificate

20 credit hours required to graduate

CAREER OPPORTUNITIES

Students certified as Emergency Medical Technician-Basic and Emergency Medical Technician-Paramedic may find employment opportunities with fire departments, private ambulance services, municipal ambulance services, insurance companies, and hospitals. Certified technicians may find rewarding careers such as those listed below.

- Emergency Medical Technician
- Paramedic
- Firefighter
- Hospital Lab Technician
- Patient Care Technician
- Emergency Department Assistant
- Cardiac Lab Technician

SPECIAL ADMISSIONS REQUIREMENTS

(For EMTP 1800 and EMTP 2700)

- Proof of high school diploma or GED
- Proof of EMT Basic Certification
- Be 18 years old or older (special age waiver may be granted to those who are not yet 18 but will turn 18 prior to completion of the course)
- Complete program application procedure
- Complete CCCC reading, writing and mathematics assessments
- Complete PSB examination for Allied Health Professionals

Registration is by permission only. Additional information and applications may be obtained from the Health Science, Physical Education, and Child Development Office.

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

Emergency Medical Services Certificate		20 credit hours
A.	EMTP 1500	Emergency Medical Procedures 5
B.	EMTP 1800	Paramedic Procedures I 8
C.	EMTP 2700	Paramedic Procedures II (Capstone) 7

ENVIRONMENTAL TECHNOLOGY

61-63 credit hours required to graduate

The need to enhance science, mathematics, and technical education—including environmental science and technology—has been recognized as a national priority by government, industry, and the academic community. Programs within the Department of Environmental Science and Technology are designed to foster environmental and technological literacy and enable students to understand the interconnections of science, technology, society, and the environment. This is done through a study of environmental problems resulting from technological development of human interaction, such as pollution control, policy and regulatory issues, mediation/abatement, waste management, energy conservation and efficiency, resource management, and sustainable development. CCCC's Environmental Technology curriculum offers two areas of specialization: Waste Management and Remediation, and Water and Wastewater Monitoring and Testing. In the process of obtaining an Associate of Applied Science degree in Environmental Technology, students will acquire valuable certificates in Hazardous Waste Operations and Emergency Response (HAZWOPER) as well as Water and Wastewater Operations.

CAREER OPPORTUNITIES

The following list identifies just a few of the typical entry-level job titles of graduates:

- Air Sampling and Monitoring Technician
- Biosolids Management Technician
- Drinking Water Technician
- Emergency Response Technician
- Environmental Compliance Technician

- Environmental Laboratory Technician
- Field Sampling Technician
- Ground Water Technician
- Hazardous Materials Technician
- Industrial Hygiene Technician
- Industrial Waste Treatment Technician
- Recycling Technician
- Regulatory Compliance Information Technician
- Remediation Technician
- Sample Prep Technician
- Solid Waste Technician
- Surface Water Technician
- Waste Minimization Technician
- Wastewater Treatment Operator
- Water Supply Technician

I. General Education Core - AAS 23 credit hours

See page 45.

CHEM 1405 or CHEM 1411 is required for this program.

II. Technical Core 18 credit hours

A.	ENVR 1411	Environmental Science 4
B.	EPCT 1305	Environmental Regulations Overview 3
C.	EPCT 1401	Hazardous Waste Operations & Emergency Response (HAZWOPER) Training & Related Topics 4
D.	EPCT 1344	Environmental Sampling & Analysis 3
E.	OSHT 2401	OSHA Regulations-General Industry 4

III. Specializations

Waste Management and Remediation 21 credit hours

A.	EPCT 1341	Principles of Industrial Hygiene 3
B.	EPCT 1343	Treatment, Remediation and Disposal Techniques 3
C.	EPCT 2333	Environmental Toxicology 3
D.	EPCT 2335	Advanced Environmental Instrumental Analysis 3
E.	EPCT 2337	Site Assessment 3
F.	EPCT 2381	Cooperative Education-Environmental and Pollution Control Technology/Technician (Capstone) 3
G.		Elective* 3

Water and Waste Water Monitoring and Testing 22 credit hours

A.	EPCT 1317	Environmental Geology 3
B.	EPCT 1351	Quality Assurance and Quality Control 3
C.	EPCT 1428	Basic Wastewater Operations 4
D.	EPCT 2212	Water Rules and Regulations 2
E.	EPCT 2381	Cooperative Education-Environmental and Pollution Control Technology/Technician (Capstone) 3

F.	EPCT 2403	Surface and Ground Water Collection	4
G.		Elective*	3

IV. Elective* 3 credit hours

A.	EPCT 1327	Water Treatment and Operations	3
B.	EPCT 2304	Water Distribution	3
C.	EPCT 2313	Wastewater Collection	3
D.	EPCT 2341	Wastewater Treatment	3
E.	EPCT 2342	Advanced Water & Wastewater Chemistry . . .	3
F.	EPCT xxxx	Any EPCT course from a second specialization	3

ENVIRONMENTAL TECHNOLOGY CERTIFICATE

**Water Quality and Waste Water Technician
Level One Certificate 29 credit hours**

I. First Semester 13 credit hours

A.	EPCT 1305	Environmental Regulations Overview	3
B.	EPCT 1311	Introduction to Environmental Science . . .	3
C.	EPCT 1344	Environmental Sampling & Analysis	3
D.	EPCT 1428	Basic Wastewater Operations	4

II. Second Semester 16 credit hours

A.	EPCT 1351	Quality Assurance & Quality Control	3
B.	EPCT 2212	Water Rules & Regulations	2
C.	EPCT 2403	Surface & Ground Water Collection	4
D.	OSHT 2401	OSHA Regulations-General Industry	4
E.	Elective	. . . . .	3

Select from the following courses:

EPCT 1327	Water Treatment and Operations
EPCT 2304	Water Distribution
EPCT 2313	Wastewater Collection
EPCT 2341	Wastewater Treatment
EPCT 2342	Advanced Water & Wastewater Chemistry
EPCT x3xx	Any EPCT course from a second specialization

FIRE SCIENCE

68 credit hours minimum required to graduate

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

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

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

Students planning to transfer to a four-year institution should check with an academic advisor. Students interested in enrolling in the Fire Academy should contact the Director of Fire Science at 972.548.6837.

CAREER OPPORTUNITIES

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

- Firefighter
- Fire Department Officer
- Municipal Emergency Administrator
- Safety Technician
- Hazardous Material Team Member
- Fire Equipment Sales and Service Representative
- Industrial Fire Protection Technician

**SPECIAL ADMISSIONS REQUIREMENTS FOR
FIREFIGHTER CERTIFICATION COURSES***

- Have proof of high school graduation or GED
- Complete CCCC 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 Admissions Office, the Social Science and Public Services Office, or from the program coordinator.

I. General Education Core 32 credit hours

A.	ENGL 1301	Composition/Rhetoric I	3
B.	SPCH 1311	Fundamentals of Speech Communication . . .	3
C.	MATH 1332	Contemporary Mathematics	3
D.	COSC 1300	Computer Essentials	3
E.	ECON 1301	Introduction to Economics	3
F.	HUMA 1301	Introduction to Humanities	3
G.	PSYC 2302	Applied Psychology	3
H.	PHED 1100	Beginning Weight Training and Conditioning 1	
I.	CHEM 1405	Introduction to Chemistry	4
J.	ENGL 2311	Technical Writing	3
K.	GOVT 2301	American Government I	3

II. Technical Core	12 credit hours
A. FIRT 1301	Fundamentals of Fire Protection3
B. FIRT 1315	Hazardous Materials I3
C. FIRT 1329	Building Codes and Construction3
D. FIRT 1338	Fire Protection Systems3

III. Specializations **21 credit hours**
 Select from Basic Firefighter, Fire Officer, or Fire Specialization.

Basic Firefighter

A. FIRS 1201	Firefighter Certification I*2
B. FIRS 1207	Firefighter Certification II*2
C. FIRS 1313	Firefighter Certification III*3
D. FIRS 1219	Firefighter Certification IV*2
E. FIRS 1223	Firefighter Certification V*2
F. FIRS 1329	Firefighter Certification VI*3
G. FIRS 1233	Firefighter Certification VII (Capstone)*2
H. EMTP 1500	Emergency Medical Procedures5

Fire Officer

A. FIRT 1303	Fire & Arson Investigation I3
B. FIRT 1307	Fire Prevention Codes & Inspection3
C. FIRT 1309	Fire Administration I3
D. FIRT 1331	Firefighting Strategies & Tactics I3
E. FIRT 1349	Fire Administration II3
F. FIRT 1355	Methods of Teaching3
G. FIRT 2370	Company Fire Officer (Capstone)3

Fire Specialization

A. FIRT 1307	Fire Prevention Codes & Inspection3
B. FIRT 1309	Fire Administration I3
C. FIRT 1345	Hazardous Materials II3
D. FIRT 1303	Fire & Arson Investigation I3
E. FIRT 1305	Public Education Programs3
F. FIRT 1347	Industrial Fire Protection3
G. FIRT 1349	Fire Administration II (Capstone)3

IV. Elective	3 credit hours
A.	Elective3

FIRE SCIENCE CERTIFICATES

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

Basic Firefighter

21 credit hours

A. EMTP 1500	Emergency Medical Procedures5
B. FIRS 1201	Firefighter Certification I*2
C. FIRS 1207	Firefighter Certification II*2
D. FIRS 1313	Firefighter Certification III*3
E. FIRS 1219	Firefighter Certification IV*2

E. FIRS 1223	Firefighter Certification V*2
G. FIRS 1329	Firefighter Certification VI*3
H. FIRS 1233	Firefighter Certification VII (Capstone)*2

Fire Officer

21 credit hours

A. FIRT 1303	Fire & Arson Investigation I3
B. FIRT 1307	Fire Prevention Codes & Inspection3
C. FIRT 1309	Fire Administration I3
D. FIRT 1331	Firefighting Strategies & Tactics I3
E. FIRT 1349	Fire Administration II3
F. FIRT 1355	Methods of Teaching3
G. FIRT 2370	Company Fire Officer (Capstone)3

The **Fire Officer Certificate** is designed for fire protection personnel functioning as supervisors in a municipal fire department. Students will participate in live fire training scenarios and must have completed 72 hours of prescribed basic training before enrolling in this program. Additional information may be obtained from the Admissions and Records Office, the Social Sciences and Public Services Office, or from the discipline coordinator.

HORTICULTURE TECHNOLOGY

Also see Associate of Science Horticulture/Landscape Technology
 70 credit hours required to graduate

Challenging careers for the 1990s and beyond may be found in the horticulture industry. The horticulture program prepares graduates for immediate positions in the nursery, landscape and professional turfgrass industries. In addition, students upgrade their knowledge and skills in various areas of the industry by attending classes pertaining to certain aspects of the horticulture industry.

The horticulture program contains three specialization areas: Horticulture Technology, Landscape Technology, and Professional Turfgrass Management. While a student will ultimately choose a specific specialization, cross-training opportunities are available no matter which specialty is chosen. Many courses are shared by each specialization curriculum.

A teaching staff with industry experience provides a practical academic approach to the study of horticulture technology. Small classes, laboratory opportunities, and a focus on experiential learning provides each student with a personalized, high quality education.

Students planning to transfer to a four-year institution should refer to the Associate of Science degree.

CAREER OPPORTUNITIES

The field of horticulture is constantly changing. Public awareness of the value of landscape development, gardening and turfgrass management, along with increasing technological sophistication is contributing to the need for trained people in the horticulture industry. Some opportunities for employment are:

- Landscape Contracting and Management
- Professional Turfgrass Management
- Grounds Supervision
- Nursery Ownership and Management
- Park Maintenance
- Greenhouse and Nursery Production

I. General Education Core - AAS 22 credit hours

See page 45.

II. Technical Core 18 credit hours

A.	HORT	1300	Basic Horticulture	.....3
B.	HORT	1305	Soils & Plant Nutrition	.....3
C.	HORT	1310	Plant Pests and Controls	.....3
D.	HORT	2290	Selected Topics in Horticulture	.....2
E.	HORT	2350	Practicum	.....3
F.	HORT	2400	Site Analysis and Surveying	.....4

III. Specializations 30 credit hours minimum

Horticulture Technology 26 credit hours

A.	HORT	1400	Woody Plant Materials	.....4
B.	HORT	1401	Herbaceous Plant Materials	.....4
C.	HORT	2300	Introduction to Landscape Design	.....3
D.	HORT	2320	Floriculture	.....3
E.	HORT	2325	Plant Propagation Techniques	.....3
F.	HORT	2330	Nursery Management	.....3

Choose two of the following: 6 credit hours

A.	HORT	1315	Interior Plants	.....3
B.	HORT	1320	Turfgrass Science and Management	.....3
C.	HORT	2315	Landscape Management	.....3

Electives* 4 credit hours minimum

Landscape 27 credit hours

A.	HORT	1200	The Landscape Industry	.....2
B.	HORT	1320	Turfgrass Science and Management	.....3
C.	HORT	1400	Woody Plant Materials	.....4
D.	HORT	1401	Herbaceous Plant Materials	.....4
E.	HORT	2300	Introduction to Landscape Design	.....3
F.	HORT	2309	Landscape Technology I	.....3
G.	HORT	2310	Landscape Technology II	.....3

Choose two of the following: 5-6 credit hours

A.	HORT	1225	Irrigation Systems	.....2
B.	HORT	2315	Landscape Management	.....3
C.	HORT	2340	Arboricultural Techniques	.....3

Electives* 3 credit hours minimum

Professional Turf Management 25 credit hours

A.	HORT	1225	Irrigation Systems	.....2
B.	HORT	1320	Turfgrass Science and Management	.....3
C.	HORT	1335	Plants of North Texas	.....3
D.	HORT	2210	Equipment Management	.....2

E.	HORT	2335	Professional Turfgrass Management	.....3
E.	HORT	2336	Golf Course and Park Management	.....3
G.	HORT	2337	Specialized Turfgrass Management	.....3

Choose two of the following: 6 credit hours

A.	HORT	2300	Introduction to Landscape Design	.....3
B.	HORT	2340	Arboricultural Techniques	.....3
C.	BMGT	1301	Supervision	.....3

Electives* 5 credit hours minimum

IV. Electives*

A.	HORT	1330	Native Plants of Texas	.....3
B.	ACCT	2301	Principles of Accounting	.....3
C.	BUSI	1301	Introduction to Business	.....3
D.	HRPO	2301	Human Resources Management	.....3
E.	SPAN	1411	Beginning Spanish	.....4

LANDSCAPE INDUSTRY CERTIFICATE

The certificate program in landscape industry is an early exit point for the Landscape Specialization. This allows persons entering the landscape contracting and management field an opportunity to gain an education, even though they have little or no previous academic background. Interested persons should contact the coordinator of the horticulture/landscape technology program at Spring Creek Campus.

Landscape Industry Certificate 37 credit hours

A.	HORT	1200	The Landscape Industry	.....2
B.	HORT	1225	Irrigation Systems	.....2
C.	HORT	1300	Basic Horticulture	.....3
D.	HORT	1305	Soils and Plant Nutrition	.....3
E.	HORT	1310	Plant Pests and Controls	.....3
F.	HORT	1320	Turfgrass Science and Management	.....3
G.	HORT	1400	Woody Plant Materials	.....4
H.	HORT	1401	Herbaceous Plant Materials	.....4
I.	HORT	2309	Landscape Technology I	.....3
J.	HORT	2310	Landscape Technology II	.....3
K.	HORT	2350	Practicum	.....3
L.	HORT	2400	Site Analysis and Surveying	.....4

HOSPITALITY MANAGEMENT

62-71 credit hours required to graduate

Hospitality Management at Collin County Community College offers the excitement of a fast-track career program and the prestige of an old and honored profession with the romance of a cosmopolitan occupation. Students completing the program will be qualified for a variety of mid-management level positions and career advancement in the hospitality industry. Hospitality students have three options to choose from:

- Culinary Arts Specialization
- Lodging Management Specialization
- Travel and Tourism Specialization

Day classes are part of a special admissions program, and space is limited. Students must qualify academically to be eligible for acceptance into a learning community and must be willing to commit to a block schedule of predetermined courses. Each semester is divided into eight-week sessions.

Night classes are open-entry courses which provide a flexible schedule and meet a variety of individual needs. These classes may also be taken for continuing education credit.

The curriculum emphasizes problem-solving, creativity, and industry involvement, in addition to practical on-the-job experience. Upon completion of this degree, the student will have achieved almost 1,000 hours of work experience directly related to this chosen field.

ACCREDITATION AND TRANSFER

Collin County Community College is seeking accreditation with the Council of Hotel, Restaurant, and Institutional Education (CHRIE), the accrediting body of hospitality programs across the nation. Articulation agreements are being developed with nationally recognized hospitality programs such as Cornell University, the University of Houston, and Texas Tech University.

CAREER OPPORTUNITIES

The Hospitality management degree prepares students for many different job opportunities in a variety of occupational areas including hotels, bed and breakfasts, retirement facilities, restaurants, country clubs, and hospitals. Possible jobs in these occupational areas include the following management and supervisory positions:

- Rooms Division: Front Office, Reservations, Switchboard, Housekeeping, Laundry
- Sales and Marketing: Sales, Catering, Convention Service, Banquet Set-ups
- Human Resources: Training, Benefits, Employment
- Security
- Accounting and Finance: Accounting, Purchasing, Auditor/Night Auditor
- Facilities Management
- Tour Operator
- Food and Beverage Management

SPECIAL ADMISSIONS REQUIREMENTS

- Complete program application procedure
 - Complete CCCC's reading, writing, and mathematics assessments
- Registration is by permission only in the Blocked Day Program.

Additional information and applications for the program may be obtained from the Admissions Office or from the Business and Computer Science Division office at the Preston Ridge Campus.

CULINARY ARTS SPECIALIZATION

71 credit hours required to graduate

I. General Education Core - AAS 22 credit hours

See page 45.

II. Technical Core 12 credit hours

- A. HAMG 1321 Introduction to Hospitality Industry3
- B. HAMG 1340 Hospitality Legal Issues3
- C. HAMG 2307 Hospitality Marketing and Sales3
- D. HAMG 2332 Hospitality Financial Management3

III. Major Courses 37 credit hours

- A. CULN 1214 A La Carte Cooking2
- B. CULN 1241 American Regional Cuisine2
- C. CULN 1245 International Cuisine2
- D. CULN 1301 Basic Food Preparation3
- E. CULN 1380 Cooperative Education - Culinary Arts/
Chef Training3
- E. CULN 2301 Intermediate Food Preparation3
- G. CULN 2331 Advanced Food Preparation I3
- H. CULN 2581 Cooperative Education - Culinary Arts/
Chef Training (Capstone)5
- I. FDST 1209 Nutrition and Menu Planning2
- J. HAMG 1211 Sanitation and Safety2
- K. HAMG 2305 Hospitality Management and Leadership . . .3
- L. PAST 1301 Fundamentals of Baking3
- M. RSTR 2405 Management of Food Preparation and
Service4

LODGING SPECIALIZATION

62 credit hours required to graduate

I. General Education Core - AAS 22 credit hours

See page 45.

II. Technical Core 12 credit hours

- A. HAMG 1321 Introduction to Hospitality Industry3
- B. HAMG 1340 Hospitality Legal Issues3
- C. HAMG 2307 Hospitality Marketing & Sales3
- D. HAMG 2332 Hospitality Financial Management3

III. Major Courses 28 credit hours

- A. HAMG 1211 Sanitation and Safety2
- B. HAMG 1313 Front Office Procedures3
- C. HAMG 1324 Hospitality Human Resources Management .3
- D. HAMG 1380 Cooperative Education - Hospitality
Administration and Management3
- E. HAMG 2301 Principles of Food and Beverage
Operations3
- E. HAMG 2305 Hospitality Management and Leadership . . .3
- G. HAMG 2337 Hospitality Facilities Management3
- H. HAMG 2581 Cooperative Education - Hospitality
Administration and Management
(Capstone)5
- I. TRVM 1327 Hospitality and Special Events3

TRAVEL/TOURISM SPECIALIZATION

65 credit hours required to graduate

I. General Education Core - AAS 22 credit hours

See page 45.

II. Technical Core 12 credit hours

A.	HAMG	1321	Introduction to Hospitality Industry . . . . .	.3
B.	HAMG	1340	Hospitality Legal Issues . . . . .	.3
C.	HAMG	2307	Hospitality Marketing & Sales . . . . .	.3
D.	HAMG	2332	Hospitality Financial Management . . . . .	.3

III. Major Courses 28 credit hours

A.	HAMG	1324	Hospitality Human Resources Management .3
B.	HAMG	2305	Hospitality Management and Leadership . . .3
C.	HAMG	2330	Conventions and Group Management and Services3
D.	TRVM	1300	Introduction to Travel and Tourism3
E.	TRVM	1345	Travel and Tourism Sales and Marketing Techniques3
F.	TRVM	1349	Travel Operations I3
G.	TRVM	1380	Cooperative Education - Travel & Tourism .3
H.	TRVM	2381	Cooperative Education - Travel & Tourism (Capstone)3
I.	TRVM	2437	Travel Industry Operations II4

IV. Electives 3 credit hours

A.	HAMG	x3xx	Any 3 credit hour HAMG course . . . . .	.3
B.	TRVM	1391	Special Topics in Travel and Tourism . . . . .	.3

HOSPITALITY MANAGEMENT CERTIFICATES

Lodging 24 credit hours

A.	HAMG	1313	Front Office Procedures . . . . .	.3
B.	HAMG	1321	Introduction to Hospitality Industry . . . . .	.3
C.	HAMG	1324	Hospitality Human Resources Management .3	
D.	HAMG	1340	Hospitality Legal Issues . . . . .	.3
E.	HAMG	1380	Cooperative Education - Hospitality Administration and Management (Capstone) 3	
F.	HAMG	2307	Hospitality Marketing and Sales . . . . .	.3
G.	HAMG	2332	Hospitality Financial Management . . . . .	.3
H.	HAMG	2337	Hospitality Facilities Management . . . . .	.3

Restaurant Management 26 credit hours

A.	HAMG	1211	Sanitation and Safety ¹ . . . . .	.2
B.	HAMG	1321	Introduction to Hospitality Industry . . . . .	.3
C.	HAMG	1340	Hospitality Legal Issues . . . . .	.3
D.	HAMG	2301	Principles of Food and Beverage Operations 3	
E.	HAMG	2305	Hospitality Management and Leadership . . .3	
F.	HAMG	2307	Hospitality Marketing and Sales . . . . .	.3
G.	HAMG	2332	Hospitality Financial Management . . . . .	.3
H.	HAMG	2337	Hospitality Facilities Management . . . . .	.3
I.	RSTR	1380	Cooperative Education - Food and Beverage Operations Manager (Capstone) . . . . .	.3

¹Certification in SERVSAFE

Travel Management 24 credit hours

A.	HAMG	1321	Introduction to Hospitality Industry . . . . .	.3
B.	HAMG	1324	Hospitality Human Resources Management .3	
C.	HAMG	1340	Hospitality Legal Issues . . . . .	.3
D.	HAMG	2307	Hospitality Marketing and Sales . . . . .	.3
E.	HAMG	2332	Hospitality Financial Management . . . . .	.3
F.	TRVM	1300	Introduction to Travel and Tourism . . . . .	.3
G.	TRVM	1349	Travel Operations I . . . . .	.3
H.	TRVM	1380	Cooperative Education - Travel & Tourism (Capstone) . . . . .	.3

INTERPRETER PREPARATION PROGRAM/DEAF

Also see Sign Language

70 credit hours required for the degree

The Interpreter Preparation Program (IPPD) strives to provide a focused and balanced education for students whose goal is to become a Sign Language Interpreter. 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 much confidential information. The Collin County Community College Interpreter Preparation Program has a higher number of deaf teachers and lab technicians than non-deaf teachers and lab technicians, allowing students the opportunity to become fluent in ASL and to develop culturally appropriate behaviors and responses.

CAREER OPPORTUNITIES

The career opportunities for persons with an IPPD Associate of Applied Science degree and appropriate licensure are varied and widespread, and include educational, medical, legal, mental health, and community-based employment. 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. In addition, many interpreters are self-employed and work as independent contractors. Career opportunities for persons with an Interpreting Apprentice certificate are more limited.

PASS/FAIL OPTION FOR SIGN LANGUAGE ONLY

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. Non-degree-seeking students may take a sign language class as Pass/Fail. Degree-seeking students should not pursue this option.

SPECIAL ADMISSIONS REQUIREMENTS

25 credit hours

1. Completion of the IPPD packet, which includes:
 - Official transcripts sent to the Admissions and Records Office
 - Application to the Interpreter Preparation Program
 - Current reading, writing, and math assessment scores
2. Assessment into:
 - READ 0310 or higher
 - ENGL 0305 or higher
 - MATH 0305 or higher
3. Demonstration of competencies or completion of the following with a GPA of at least 2.5:
 - SGNL 1401/IPPD 1404 ASL: Beginning I (4 credit hours)
 - SGNL 1402/IPPD 1405 ASL: Beginning II (4 credit hours)
 - IPPD 1311* Expressive and Receptive Fingerspelling and Numbers (3 credit hours)
 - SGNL 2401/IPPD 1444 ASL: Intermediate I (4 credit hours)
 - SGNL 2402/IPPD 1445 ASL: Intermediate II (4 credit hours)
 - IPPD 1347 Deaf Culture (3 credit hours)
 - IPPD 1321 Introduction to the Interpreting Profession (3 credit hours)
4. After completion of the above, a recommendation from the IPPD committee and a personal interview to assess ASL skills is required.

*NOTE: IPPD 1311 can be counted only once in total hours required for a degree.

CONTINUATION REQUIREMENTS

Beginning with IPPD 1444/SGNL 2401 (ASL: Intermediate I), 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

I. General Education Core 23 credit hours

A.	COSC	1300	Computer Essentials	3
B.	ECON	1301	Introduction to Economics	3
	or ECON	2301	Principles of Macroeconomics	3
	or ECON	2302	Principles of Microeconomics	3
	or BUSG	2309	Small Business Management ¹	3
C.	ENGL	1301	Composition/Rhetoric I	3
D.	MATH	xxxx	Any college-level mathematics course ²	3
E.	PHED	1238	Concepts of Physical Fitness and Wellness ¹	2
	or PHED	xxxx	Any 2 activity courses	2
F.	PHIL	2306	Ethics ¹	3
G.	PSYC	2302	Applied Psychology	3
	or PSYC	2301	General Psychology	3

H.	SPCH	1311	Fundamentals of Speech Communication	3
	or SPCH	1315	Public Speaking	3
	or SPCH	1321	Business and Professional Speaking	3

¹Recommended for IPPD majors but certain other courses in economics, humanities, or physical education may be considered.

²MATH 1332 (Contemporary Math) recommended for IPPD majors.

II. Technical Core 6 credit hours

A.	ANTH	2351	Cultural Anthropology	3
B.	DRAM	1351	Acting I	3
C.	ENGL	1302	Composition/Rhetoric II	3
D.	SPCH	1315	Public Speaking	3
E.	SPCH	1318	Interpersonal Communication	3

III. Major Courses 38 credit hours

A.	IPPD	1404	ASL: Beginning I ³	4
	or SGNL	1401	ASL: Beginning I ³	4
B.	IPPD	1405	ASL: Beginning II ³	4
	or SGNL	1402	ASL: Beginning I I ³	4
C.	IPPD	1311	Expressive and Receptive Fingerspelling and Numbers	3
D.	IPPD	1347	Deaf Culture	3
E.	IPPD	1444	ASL: Intermediate I ³	4
	or SGNL	2401	ASL: Intermediate I ³	4
F.	IPPD	1445	ASL: Intermediate II ³	4
	or SGNL	2402	ASL: Intermediate II ³	4
G.	IPPD	1321	Introduction to Interpreting Profession	3
H.	IPPD	2286	Practicum I - Sign Language Interpreter	2
I.	IPPD	2287	Practicum II - Sign Language Interpreter	2
J.	IPPD	2301	Interpreting I	3
K.	IPPD	2311	Specialized Interpreting/Transliterating	3
L.	IPPD	2378	Sign to Voice	3

³The IPPD prefix is reserved for students in the Interpreter Preparation Program. Foreign Language students must use the SGNL prefix.

IV. Electives 3 credit hours

A.	BUSI	1307	Personal Finance	3
B.	BMGT	2309	Leadership*	3
C.	CRIJ	1306	The Courts and Criminal Procedure	3
D.	CRIJ	1313	Juvenile Justice System	3
E.	HLSC	1300	Medical Terminology	3
F.	SOCI	1306	Social Problems	3
G.	SOCI	2319	Minority Studies	3

*Tech Prep course which may have been completed in high school.

INTERPRETING APPRENTICE CERTIFICATE

36 credit hours required to complete certificate

NOTE: This certificate is not a state license to interpret. (This statement will be printed on the student's actual certificate.)

Major Courses 25 credit hours

A.	IPPD	1404	ASL: Beginning I ¹	4
	or SGNL	1401	ASL: Beginning I ¹	4
B.	IPPD	1405	ASL: Beginning II ¹	4
	or SGNL	1402	ASL: Beginning II ¹	4

C.	IPPD	1311	Expressive and Receptive Fingerspelling and Numbers . . . . .	.3
D.	IPPD	1347	Deaf Culture . . . . .	.3
E.	IPPD	1444	ASL: Intermediate I ¹ . . . . .	.4
or	SGNL	2401	ASL: Intermediate I ¹ . . . . .	.4
F.	IPPD	1445	ASL: Intermediate II ¹ . . . . .	.4
or	SGNL	2402	ASL: Intermediate II ¹ . . . . .	.4
G.	IPPD	1321	Introduction to the Interpreting Profession . . .	.3

¹The IPPD prefix is reserved for students in the Interpreter Preparation Program. Foreign Language students must use the SGNL prefix.

Electives 11 credit hours minimum

Students may select their electives from the courses below:

A.	ANTH	2351	Cultural Anthropology . . . . .	.3
B.	BMGT	2309	Leadership . . . . .	.3
C.	BUSI	1307	Personal Finance . . . . .	.3
D.	DRAM	1351	Acting I . . . . .	.3
E.	ENGL	1301	Composition/Rhetoric I . . . . .	.3
F.	ENGL	1302	Composition/Rhetoric II . . . . .	.3
G.	PHED	1238	Concepts of Fitness & Wellness . . . . .	.2
or	PHED	xxxx	Any PHED activity course . . . . .	.1-2
or	DANC	xxxx	Any DANC activity course . . . . .	.1-2
H.	PSYC	2301	General Psychology . . . . .	.3
or	PSYC	2302	Applied Psychology . . . . .	.3
I.	SOCI	1306	Social Problems . . . . .	.3
J.	SOCI	2319	Minority Studies . . . . .	.3
K.	SPCH	1311	Fundamentals of Speech Communication . . .	.3
or	SPCH	1315	Public Speaking . . . . .	.3
or	SPCH	1318	Interpersonal Communication . . . . .	.3

NOTES:

- The prerequisites for Introduction to the Interpreting Profession are IPPD 1404/SGNL 1401, IPPD 1405/SGNL 1402, IPPD 1444/SGNL 2401, IPPD 1445/SGNL 2402, IPPD 1311, and IPPD 1347.
- TASP is waived for certificate programs as long as certificate program paperwork is filed with the Registrar.
- The student takes the IPPD Language Assessment after completing all certificate requirements.

MANAGEMENT

MANAGEMENT DEVELOPMENT

Also a Tech Prep Program

63 credit hours required to graduate

Management Development is no longer a field just for people who desire to be managers. In today's world, organizations are empowering all individuals, giving them more responsibility and requiring more knowledge. This degree strives to provide 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 resource management, human relations training, financial management, and capital acquisition skills.

This degree is also excellent for people who wish to major in another field but need some business and management skills. All organizations have a business approach, which requires that individuals be adept at planning, organizing, leading, and controlling the many activities that accompany a successful business venture.

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

Tech Prep students who took college-level courses in Management Development while in high school may elect to receive college credit by contacting a CCCC advisor. A petition for Tech Prep credit should be completed as soon as possible upon admission to CCCC.

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.

I. General Education Core - AAS 21 credit hours

See page 45.

II. Technical Core 15 credit hours

A.	ACCT	2301	Principles of Accounting I . . . . .	.3
B.	BMGT	1301	Supervision . . . . .	.3
C.	BMGT	1303	Principles of Management* . . . . .	.3
D.	CSCI	2305	Integrated Spreadsheet Applications . . . . .	.3
E.	HRPO	2301	Human Resources Management . . . . .	.3

III. Major Courses 24 credit hours

A	BMGT	1307	High Performance Work Teams* . . . . .	.3
B.	BMGT	2309	Leadership . . . . .	.3
C.	BMGT	2311	Management of Change . . . . .	.3
D.	BMGT	2331	Total Quality Management . . . . .	.3
E.	BMGT	2341	Strategic Management . . . . .	.3
G.	BMGT	2374	Local Needs Financial Management . . . . .	.3
H.	BMGT	2382	Cooperative Education - Business Administration and Management, General (Capstone) . . . . .	.3
I.	QCTC	1303	Quality Control . . . . .	.3

IV. Electives 3 credit hours

A.	BMGT	1382	Cooperative Education - Business Administration and Management, General (Capstone) . . . . .	.3
B.	BUSI	1301	Introduction to Business . . . . .	.3
C.	HAMG	1321	Introduction to Hospitality Industry . . . . .	.3
D.	HAMG	2305	Hospitality Management and Leadership . . .	.3
E.	HAMG	2307	Hospitality Marketing and Sales . . . . .	.3
F.	HRPO	1305	Management and Labor Relations . . . . .	.3
G.	HRPO	1391	Special Topics in Human Resources Management . . . . .	.3
H.	HRPO	1392	Special Topics in Labor/Personnel Relations and Studies . . . . .	.3
I.	HRPO	2307	Organizational Behavior . . . . .	.3

ENHANCED SKILLS CERTIFICATE

The Enhanced Skills Certificate in Management Development provides additional training in specific job skills which supplement those acquired within the curriculum for an AAS degree in Management Development. Students will have an opportunity to acquire those employment-related skills while completing the AAS degree requirements or subsequent to earning their AAS in Management Development.

Enhanced Skills Certificate		9 credit hours
A.	BMGT 2311	Management of Change3
B.	BMGT 2331	Total Quality Management3
C.	QCTC 1303	Quality Control3

MANAGEMENT CERTIFICATES

Human Resources Management		15 credit hours
A.	BMGT 1303	Principles of Management*3
B.	BMGT 1307	High Performance Work Teams*3
C.	BMGT 2309	Leadership3
D.	HRPO 2301	Human Resources Management3
E.	QCTC 1303	Quality Control3

Quality Management		15 credit hours
A.	BMGT 1301	Supervision3
B.	BMGT 1303	Principles of Management3
C.	BMGT 2309	Leadership3
D.	BMGT 2331	Total Quality Management3
E.	QCTC 1303	Quality Control3

Strategic Management		18 credit hours
A.	BMGT 1303	Principles of Management3
B.	BMGT 2309	Leadership3
C.	BMGT 2311	Management of Change3
D.	BMGT 2341	Strategic Management3
E.	BMGT 2374	Financial Management3
F.	QCTC 1303	Quality Control3

*Tech Prep courses which may have been completed in high school.

MARKETING

61 credit hours required to graduate

Marketing incorporates professional education courses to prepare individuals for career paths with retail or wholesale organizations, profit or non-profit service organizations, governmental agencies, and academic institutions.

This program is designed to give a thorough background in aspects of marketing and to provide methods for improving skills for people already employed in a marketing career.

Marketing students who have questions or plan to transfer to four-year institutions should check with the program coordinator.

CAREER OPPORTUNITIES

Marketing provides the essential core of marketing practices and prepares students for positions in:

- Retailing
- Wholesaling
- Marketing Management
- Sales
- Sales Management
- Consulting
- Directing
- Promotion
- Advertising
- Industrial Marketing Management
- International Marketing
- Customer Service

I. General Education Core - AAS 22 credit hours

See page 45.

MATH 1324 & PSYC 2301 should be taken by students planning to transfer.

II. Technical Core		15 credit hours
A.	ACCT 2301	Principles of Accounting I3
B.	BMGT 1305	Communications in Management3
C.	BMGT 1333	Principles of Selling3
D.	BUSG 2309	Small Business Management3
E.	MRKG 1311	Principles of Marketing3

III. Major Courses		21 credit hours
A.	BMGT 1302	Principles of Retailing3
B.	BMGT 1348	Marketing Research and Strategies3
C.	BMGT 1349	Advertising and Sales Promotion3
D.	BMGT 1396	Special Topics in General Retailing Operations3
E.	IBUS 1354	International Marketing Management3
F.	MRKG 1391	Special Topics in Business Marketing and Marketing Management3
G.	MRKG 2381	Cooperative Education - Business Marketing and Marketing Management (Capstone)3

IV. Electives		3 credit hours
A.	AGDT 1300	Survey of Advertising Art3
B.	AGDT 1325	Visual Communications I3
C.	BMGT 1307	High Performance Work Teams3
D.	COMM 1307	Introduction to Mass Communication3
E.	MRKG 1380	Cooperative Education - Business Marketing and Marketing Management3

MARKETING CERTIFICATES

Retailing Specialization		18 credit hours
A.	BMGT 1302	Principles of Retailing3
B.	BMGT 1333	Principles of Selling3
C.	BMGT 1348	Marketing Research and Strategies3
D.	BMGT 1349	Advertising and Sales Promotion3
E.	MRKG 1311	Principles of Marketing3
F.	MRKG 1391	Special Topics in Business Marketing and Marketing Management3

Sales Management Specialization		18 credit hours
A. BMGT 1307	High Performance Work Teams	.3
or IBUS 1354	International Marketing Mgmt	.3
B. BMGT 1333	Principles of Selling	.3
C. BMGT 1349	Advertising and Sales Promotion	.3
D. BUSG 2309	Small Business Management	.3
E. MRKG 1311	Principles of Marketing	.3
F. MRKG 1391	Special Topics in Business Marketing and Marketing Management	.3

MUSIC, COMMERCIAL

Also see Associate of Arts Music
62 credit hours required to graduate

The Associate of Applied Science degree program in Commercial Music provides career training in performance, audio engineering and sound reinforcement, electronic music, and composition/songwriting. Internship opportunities are available through Cooperative Work Experience for practical training in the field. Many CCCC graduates perform professionally or work in recording studios, tape duplication and editing facilities, and sound reinforcement companies. Others elect to transfer upon degree completion to a four-year university for further studies and specialization. Students planning to transfer to senior institutions should check with the Coordinator of Music.

CAREER OPPORTUNITIES

- Audio duplication/manufacture
- Audio Engineering
- Digital audio editing
- Instrumental/vocal arranging
- Jingle composition
- Performance
- Music marketing
- Music transcribing
- Studio management
- Synthesizer programming

I. General Education Core		16 credit hours
A. AGDT 1310	Introduction to Computer Graphics	.3
B. ENGL 1301	Composition/Rhetoric I	.3
C. MATH x3xx	College level mathematics	.3
D. MUSI 2308	Introduction to Music Literature*	.3
E. PHED 11xx	Any activity course	.1
F. PSYC 2301	General Psychology	.3

*Suggested as Fine Arts/Humanities requirement for Music Majors

II. Technical Core		9 credit hours
A. MUSB 1305	Survey of the Music Business	.3
B. MUSC 1327	Audio Engineering I	.3
C. MUSC 1331	Musical Instrument Digital Interface (MIDI) I	.3

III. Major Courses		12 credit hours
A. MUSB 2380	Cooperative Education-Music Business Management and Merchandising	.3
B. MUSC 1215	Music Performance Ear Training I	.2
C. MUSC 2213	Commercial Music Theory I	.2

D. MUSI 1171	Leisure Piano I	.1
E. MUSI 1172	Leisure Piano II	.1
F. MUSI 1301	Music Fundamentals	.3

IV. Technical Electives		15 credit hours
A. CETT 1409	AC/DC Circuits	.4
B. MUSB 1391	Special Topics in Music Business Management and Merchandising	.3
C. MUSC 1303	History of Popular Music	.3
D. MUSC 1321	Songwriting	.3
E. MUSC 1333	Synthesis	.3
F. MUSC 2330	Commercial Music Arranging and Composition	.3
G. MUSC 2370	Audio for Multimedia I	.3
H. MUSC 2371	Audio for Multimedia II	.3
I. MUSC 2427	Audio Engineering II	.4
J. MUSC 2447	Audio Engineering III	.4
K. MUSC 2448	Audio Engineering IV	.4

V. Music Electives		10 credit hours
A. MUSI 1116	Aural Skills I	.1
B. MUSI 1117	Aural Skills II	.1
C. MUSI 1182	Beginning Piano II	.1
D. MUSI 1183	Class Voice	.1
E. MUSI 1192	Class Guitar I	.1
F. MUSI 1193	Class Guitar II	.1
G. MUSI 1311	Music Theory I	.3
H. MUSI 1312	Music Theory II	.3
I. MUSI 2181	Beginning Piano III	.1
J. MUSI 2182	Beginning Piano IV	.1
K. MUAP xxxx	Any Applied Music courses	... up to 8 credits
L. MUEN xxxx	Any Music Ensemble courses	... up to 4 credits
M.	Any additional Technical Elective courses	

AUDIO ENGINEERING CERTIFICATE

30-31 credit hours

I. First Semester		17 credit hours
A. CETT 1409	AC/DC Circuits	.4
B. MUSB 1305	Survey of the Music Business	.3
C. MUSC 1327	Audio Engineering I	.3
D. MUSC 2427	Audio Engineering II	.4
E. Elective		.3

Select from MUSC 1303, MUSC 1331, MUSC 2370, & MUSI 1301

II. Second Semester		13-14 credit hours
A. MUSB 1391	Special Topics in Music Business Management and Merchandising	.3
B. MUSC 2447	Audio Engineering III	.4
C. MUSC 2448	Audio Engineering IV	.4
D. Elective		.2-3

Select from MUSC 1215, MUSC 1333, MUSC 2213, & MUSC 2371

NURSING

72 credit hours required to graduate

This two-year Associate of Applied Science degree is offered to prepare the student to make application to the Board of Nurse Examiners for licensure as a registered nurse. The nursing curriculum is accredited by the Board of Nurse Examiners for the State of Texas and 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, he may petition the board for a declaration order. Please call the Director of the Associate Degree Nursing Program for further information.

The course of study consists of five nursing courses which include a classroom and a clinical component. These courses must be taken in sequence to assure progression 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.

The National League for Nursing Accrediting Commission has recently granted continued re-accreditation to the nursing program for eight years. They may be contacted at:

61 Broadway
New York, NY 10006
212.363.5555 ext. 153

Please contact the Health Sciences, Physical Education, and Child Development Division for further information about proposed curriculum changes in the nursing program, effective Fall 2000.

SCHOLARSHIPS

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

SPECIAL ADMISSION REQUIREMENTS

- GPA of 2.5 or greater on all courses applicable to the nursing program
- Official copies of all college transcripts
- Complete the PSB—(Nursing School Aptitude Exam) prior to January 31 with a satisfactory result
- Complete pre-entrance course requirements with a minimum 2.5 GPA Admission 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 Health Science, Physical Education and Child Development Division Office.

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

I. Pre-Entrance Requirements	15 credit hours
A. BIOL 2401	Anatomy and Physiology I4
B. BIOL 2402	Anatomy and Physiology II4
C. BIOL 2420	Microbiology4
D. MATH 1324	Pre-Calculus for Business/Economics3
or MATH 1342	Statistics3
or MATH 1314	College Algebra3
II. First Semester	14 credit hours
A. NURS 1800	Nursing I8
B. ENGL 1301	Composition/Rhetoric I3
C. PSYC 2301	General Psychology3
III. Second Semester	15 credit hours
A. NURS 1805	Nursing II8
B. PHED XXXX	Any Activity Course1
C. PSYC 2314	Life Span Psychology3
D.	Humanities/Fine Arts/Philosophy ¹3
IV. Summer Semester	4 credit hours
A. NURS 2400	Nursing III4
V. Fourth Semester	12 credit hours
A. NURS 2900	Nursing IV9
B. SOCI 1301	Introduction to Sociology3
or SOCI 1306	Social Problems3
or SOCI 2371	Death and Dying3
VI. Fifth Semester	12 credit hours
A. NURS 2905	Nursing V (Capstone)9
B. Elective ²	. . . . .3

¹Choose a Humanities/Fine Arts/Philosophy course from the General Education Core for the Associate of Applied Science Degree on page 45.

²Elective hours are open. Students may take any college-level course.

NOTE: Biology and Mathematics courses must have been completed within the last five years to be considered toward degree requirements.

NUTRITION

Refer to Biology and Nutrition for descriptions of each nutrition course. For certificate information refer to Dietary Manager on page 77.

OFFICE ADMINISTRATION

GENERAL

62 credit hours required to graduate

The degree in Office Administration is designed to incorporate both the technical and behavioral aspects of jobs in the automated office. This program enables the student to master office skills and select a specialty by choosing the proper electives. Areas of study include:

- **Office Skills:** document production, business telephone techniques, and electronic memory calculators
- **Proofreading/Editing:** language applications for business correspondence and documents

- **Computers and Spreadsheet Software:** hands-on experience with DOS, Windows, spreadsheet, and database programs such as Excel and Access
- **Word Processing:** hands-on experience using software such as WordPerfect for DOS, WordPerfect for Windows, Microsoft Word for Windows, and other popular software for document production and desktop publishing
- **Records Management:** ARMA filing rules, design, and implementation of efficient and cost-effective system
- **Office Management:** administrative details and office procedures
- **Medical Records:** transcription and coding of patient records and reports
- **Financial Responsibilities:** insurance claims, accounting systems, fees and payments

Tech Prep students who took collegiate-level courses in Office Administration while in high school may elect to receive college credit by contacting a CCCC advisor. A petition for Tech Prep credit should be completed as soon as possible upon admission to CCCC.

CAREER OPPORTUNITIES

Job opportunities for those with Office Administration training (depending on electives chosen) would include:

- **Typist:** entry-level position requiring accurate typing skills (50 wpm)
- **Receptionist/Typist:** individuals for front desk positions to answer phones, type and handle various other duties such as machine transcription
- **CRT Operator:** enter bills of lading by CRT, answer phones, process daily shipping reports and shipping labels
- **Human Resources Clerk:** primary responsibilities include greeting and screening visitors, data input, and general office support
- **Billing Clerk:** detail-oriented person to process invoices, purchase orders, and inventory records using the computer and ten-key skills
- **Secretary/Administrative Assistant:** assisting the executive in decision making, conducting research, meeting the public, and office skills
- **Medical Secretary or Medical Transcriptionist:** work for a doctor in a general practitioner's office, a group practice, a dental office, hospitals, clinics, or in the home
- **Medical Insurance Claims Support:** work for public health departments, convalescent and nursing homes, health insurance companies, manufacturers and distributors of drugs, pharmaceutical products, surgical instruments, and hospital supplies or medical laboratories
- **Legal Office Support:** work in a law office using entry-level law office clerical skills

Some of the courses required for the Office Administration 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 CCCC to be applied toward the AAS degree in Office Administration.

I. General Education Core - AAS 22 credit hours

See page 45.

MATH 1324 may be substituted for MATH 1332

II. Technical Core 13 credit hours

A. OFAD 1210	Records Management	2
B. OFAD 1211	Proofreading/Editing	2
C. OFAD 1302	Intermediate Keyboarding*	3
D. OFAD 1315	Electronic Calculator	3
E. OFAD 1331	Beginning Word Processing ^{1*}	3

* These Tech Prep courses may have been taken in high school.

III. Major Courses 12 credit hours

A. OFAD 1332	Intermediate Word Processing ¹	3
B. OFAD 2303	Advanced Keyboarding	3
C. OFAD 2305	Machine Transcription	3
or OFAD 2306	Medical Transcription I	3
D. OFAD 2315	Office Procedures	3

IV. Electives² 15 credit hours

A. OFAD 1310	Medical Insurance Coding	3
B. OFAD 1320	Business Correspondence	3
C. OFAD 1325	Office Support Software	3
D. OFAD 2306	Medical Transcription I	3
E. OFAD 2307	Medical Transcription II	3
F. OFAD 2333	Advanced Word Processing	3
G. OFAD 7300	Cooperative Education I	3
H. OFAD 7305	Cooperative Education II	3
I. ACNT 1303	Introduction to Accounting I*	3
J. CSCI 1305	Microcomputer Concepts*	3
K. CSCI 2305	Integrated Spreadsheet Applications*	3
L. CSCI 2310	Database Applications	3

* These Tech Prep courses may have been taken in high school.

¹Select class section according to major (general, legal, medical)

²Permission may be granted by OFAD Coordinator to substitute one non-OFAD course for one elective. HLSC 1300 Medical Terminology is recommended for medical OFAD majors and can be used as one of the 15 credit hours elective.

OFFICE ADMINISTRATION CERTIFICATE PROGRAMS

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

OFFICE SUPPORT CERTIFICATES

The Entry-Level Office Support, the Mid-Level Office Support, the Administrative Support, and the Entry-Level Accounting Clerk certificate programs are designed to prepare individuals for general office support or accounting clerk positions. Each level feeds into the next level while increasing the student's knowledge.

Entry-Level Office Support 16 credit hours

A.	OFAD	1210	Records Management	2
B.	OFAD	1211	Proofreading/Editing	2
C.	OFAD	1301	Beginning Keyboarding*	3
or	OFAD	1302	Intermediate Keyboarding*	3
D.	OFAD	1315	Electronic Calculator	3
E.	OFAD	1331	Beginning Word Processing*	3
F.	OFAD	2315	Office Procedures	3

Mid-Level Office Support 19 credit hours

A.	OFAD	1210	Records Management	2
B.	OFAD	1211	Proofreading/Editing	2
C.	OFAD	1302	Intermediate Keyboarding*	3
D.	OFAD	1315	Electronic Calculator	3
E.	OFAD	1332	Intermediate Word Processing	3
F.	OFAD	2305	Machine Transcription	3
G.	OFAD	2315	Office Procedures	3

* These Tech Prep courses may have been taken in high school.

Administrative Support 25 credit hours

A.	OFAD	1210	Records Management	2
B.	OFAD	1211	Proofreading/Editing	2
C.	OFAD	1302	Intermediate Keyboarding*	3
D.	OFAD	1320	Business Correspondence	3
E.	OFAD	2303	Advanced Keyboarding	3
F.	OFAD	2315	Office Procedures	3
G.	OFAD	2333	Advanced Word Processing	3
H.	CSCI	2305	Integrated Spreadsheet Applications*	3
I.	CSCI	2310	Database Applications	3

Entry-Level Accounting Clerk 18 credit hours

A.	OFAD	1301	Beginning Keyboarding*	3
or	CSCI	2305	Integrated Spreadsheet	3
B.	OFAD	1302	Intermediate Keyboarding*	3
C.	OFAD	1315	Electronic Calculator	3
D.	OFAD	1331	Beginning Word Processing*	3
E.	OFAD	2315	Office Procedures	3
F.	ACNT	1303	Introduction to Accounting I*	3
or	ACCT	2301	Principles of Accounting	3

ENHANCED OFFICE TECHNOLOGY CERTIFICATE

This certificate is designed to enhance an Office Administration degree and/or certificate and prepare the student for a higher-level position in an office environment.

Enhanced Office Technology 12 credit hours

A.	BMGT	2309	Leadership*	3
B.	OFAD	1320	Business Correspondence	3
C.	CSCI	1305	Microcomputer Concepts*	3
D.	CSCI	2305	Integrated Spreadsheet Applications*	3

*Tech Prep courses which may have been completed in high school.

WORD PROCESSING CERTIFICATE

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

Word Processing 20 credit hours

A.	OFAD	1211	Proofreading/Editing	2
B.	OFAD	1302	Intermediate Keyboarding*	3
C.	OFAD	1325	Office Support Software	3
D.	OFAD	1331	Beginning Word Processing*	3
E.	OFAD	1332	Intermediate Word Processing	3
F.	OFAD	2303	Advanced Keyboarding	3
G.	OFAD	2333	Advanced Word Processing	3

* These Tech Prep courses may have been taken in high school.

MEDICAL OFFICE SUPPORT CERTIFICATE

The Entry-Level Medical Office Support and Medical Administrative Assistant certificate programs are designed to prepare individuals for positions in a medical office or health care facility.

Entry-Level Medical Office Support 19 credit hours

A.	OFAD	1210	Records Management	2
B.	OFAD	1211	Proofreading/Editing	2
C.	OFAD	1302	Intermediate Keyboarding*	3
D.	OFAD	1315	Electronic Calculator	3
E.	OFAD	1325	Office Support Software	3
or	OFAD	1332	Intermediate Word Processing/Medical	3
F.	OFAD	1331	Beginning Word Processing/Medical	3
G.	HLSC	1300	Medical Terminology	3

Medical Administrative Assistant 25 credit hours

A.	OFAD	1210	Records Management	2
B.	OFAD	1211	Proofreading/Editing	2
C.	OFAD	1302	Intermediate Keyboarding*	3
D.	OFAD	1310	Medical Insurance Coding	3
E.	OFAD	1325	Office Support Software	3
or	OFAD	1332	Intermediate Word Processing/Medical	3
F.	OFAD	2303	Advanced Keyboarding	3
G.	OFAD	2306	Medical Transcription I	3
H.	OFAD	2315	Office Procedures	3
I.	HLSC	1300	Medical Terminology	3

* Tech Prep courses which may have been completed in high school.

MEDICAL TRANSCRIPTION CERTIFICATES

The Entry-Level Medical Transcription Skills and the Mid-Level Transcription Skills Certificate Programs are designed to prepare individuals as medical language specialists who interpret and transcribe dictation by physicians and other healthcare professionals regarding patient assessment, workup, therapeutic procedures, clinical course, diagnosis, prognosis, etc. in order to document patient care and facilitate delivery of healthcare services.

Entry-Level Medical Transcription Skills 17 credit hours

A.	OFAD	1211	Proofreading/Editing	2
B.	OFAD	1331	Beginning Word Processing/Medical	3
C.	OFAD	1332	Intermediate Word Processing/Medical	3
D.	OFAD	2306	Medical Transcription I	3
E.	OFAD	2307	Medical Transcription II	3
F.	HLSC	1300	Medical Terminology	3

Mid-Level Medical Transcription Skills 41 credit hours

High school English skills demonstrated or take ENGL 0310. Computer keyboarding skills demonstrated or take OFAD 1200. WordPerfect 5.1/DOS skills demonstrated or take OFAD 1325 or OFAD 1331/Medical.

A.	OFAD	1201	Speedbuilding	2
	or OFAD	1200	Computer Keyboarding	2
B.	OFAD	1211	Proofreading/Editing	2
C.	OFAD	1325	Office Support Software ¹	3
D.	OFAD	2306	Medical Transcription I	3
E.	OFAD	2309	Special Topics in Medical Transcription	3
F.	OFAD	7300	Cooperative Education I	3
	or OFAD	2310	Medical Transcription Simulation	3
G.	OFAD	2307	Medical Transcription II	3
H.	BIOL	1471	Human Anatomy & Physiology Basics	4
I.	HLSC	1300	Medical Terminology	3
J.	HLSC	1305	Advanced Medical Terminology	3
K.	HLSC	1310	Human Diseases	3
L.	HLSC	2300	Medical Procedures	3
M.	HLSC	2305	Pharmacology	3
N.	HLSC	2310	Professional and Medicolegal Issues	3

¹WordPerfect 8.0/Windows.

LEGAL OFFICE SUPPORT CERTIFICATE

The Legal Office Support Certificate Program is designed to prepare the student for legal office support with entry-level law office clerical skills and also allows the student to complete prerequisite courses leading to Legal Assistant programs.

Legal Office Support 19 credit hours

A.	LEGL	1301	Law and Judicial Systems	3
B.	OFAD	1210	Records Management	2
C.	OFAD	1211	Proofreading/Editing	2
D.	OFAD	1302	Intermediate Keyboarding*	3
E.	OFAD	1331	Beginning Word Processing/Legal	3
F.	OFAD	1332	Intermediate Word Processing/Legal	3
G.	OFAD	2305	Machine Transcription/Legal	3

*Tech Prep courses which may have been completed in high school.

PARALEGAL/LEGAL ASSISTANT

Also see Associate of Arts Paralegal/Legal Assistant

64 credit hours required to graduate

Texas Woman's University (TWU) and CCCC Paralegal programs entered an articulation agreement effective Fall 1999 that establishes a plan for students to obtain an Associate of Arts degree from CCCC and a Bachelor of Science degree in Paralegal Studies from TWU. Students pursuing this plan will be assured transfer of all CCCC courses toward a Bachelor of Science degree at TWU.

Additionally, TWU will offer paralegal courses on CCCC campuses beginning in Spring 2000.

Look for the creation of a TWU/CCCC Legal Studies Center in the near future. It will aim to provide academic and professional development courses as the paralegal profession expands and as its educational needs become more intense.

CAREER OPPORTUNITIES

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

JOB DESCRIPTION

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

I. General Education Core - AAS 22 credit hours

See page 45.

II. Technical Core 15 credit hours

A.	ACCT	2301	Principles of Accounting I	3
B.	ENGL	1302	Composition/Rhetoric II	3
C.	LGLA	1317	Law Office Technology	3
D.	LGLA	2333	Advanced Legal Document Preparation	3
E.	OFAD	1325	Office Support Software	3

III. Major Courses 18 credit hours

A.	LGLA	1303	Legal Research	3
B.	LGLA	1307	Introduction to Law and the Legal Profession	3
C.	LGLA	1346	Civil Litigation I	3
D.	LGLA	1347	Civil Litigation II	3
E.	LGLA	2307	Law Office Management	3
G.	LGLA	2381	Cooperative Education - Paralegal/Legal Assistant (Capstone)	3

IV. Electives		9 credit hours
A. BUSI 2301	Business Law	3
B. CRIJ 1301	Introduction to Criminal Justice	3
C. CRIJ 1306	The Courts and Criminal Procedure	3
D. CRIJ 1310	Fundamentals of Criminal Law	3
E. ENGL 23xx	Any ENGL 2300 Level Course	3
F. GOVT 2302	American Government II	3
G. HAMG 1340	Hospitality Legal Issues	3
H. LGLA 1305	Legal Writing	3
I. LGLA 1353	Wills, Trusts and Probate Administration	3
J. LGLA 1355	Family Law	3
K. LGLA 1380	Cooperative Education - Paralegal/ Legal Assistant	3
L. LGLA 1391	Special Topics in Paralegal Studies	3
M. LGLA 2303	Torts and Personal Injury Law	3
N. RELE 1311	Real Estate Law of Contracts	3
O. RELE 2301	Law of Agency	3

PARALEGAL/LEGAL ASSISTANT CERTIFICATES

Two certificate plans are available for students who meet employment or additional education requirements.

The General Certificate (27 credit hours) requires completion of 6 credit hours in office skills courses and 21 credit hours in basic legal courses. Additionally, students must document the required work experience outlined below.

The Specialty Certificate requires completion of any 18 credit hours from the specified law courses. Students must either (1) have completed the General Certificate or (2) document the required work experience stated below.

A certificate for either plan will be awarded only after the student completes the required courses and submits satisfactory documentation of one of the following:

Paralegal/Legal Assistant General Certificate

- 3 years full-time employment in a legal related field or
- 5 years full-time employment in a secretarial related field

Paralegal/Legal Assistant Specialty Certificate

- Completion of the Paralegal/Legal Assistant General Certificate or
- 5 years full-time employment in a legal related field

Employment documentation may be submitted at enrollment or at any time the employment requirement is met prior to the deadline for submitting the application for graduation. (Generally, this will be immediately preceding the semester the coursework is completed.)

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

Paralegal General Certificate		27 credit hours
A. ACNT 1303	Introduction to Accounting I ¹	3
B. COSC 1300	Computer Essentials ²	3
C. LGLA 1303	Legal Research	3
D. LGLA 1307	Introduction to Law and the Legal Professions	3
E. LGLA 1346	Civil Litigation I	3
F. LGLA 1347	Civil Litigation II	3
G. LGLA 2307	Law Office Management	3
H. LGLA 2333	Advanced Legal Document Preparation	3
I. LGLA 2381	Cooperative Education - Paralegal/Legal Assistant (Capstone)	3

¹Higher level course may be substituted

²CSCI 1305 or OFAD 1332 may be substituted

Paralegal Specialty Certificate 18 credit hours

A. LGLA 1317	Law Office Technology (Capstone)	3
B. Electives		15

Choose 5 of the following courses:

BUSI 2301	Business Law
CRIJ 1301	Introduction to Criminal Justice
CRIJ 1306	The Courts and Criminal Procedure
CRIJ 1310	Fundamentals of Criminal Law
HAMG 1340	Hospitality Legal Issues
LGLA 1305	Legal Writing
LGLA 1353	Wills, Trusts, and Probate Administration
LGLA 1355	Family Law
LGLA 2303	Torts and Personal Injury Law
LGLA 2381	Cooperative Education Paralegal/Legal Assistant
LGLA 1391	Special Topics in Paralegal/Legal Assistant
RELE 1311	Real Estate Law of Contracts
RELE 2301	Law of Agency

PHLEBOTOMY CERTIFICATE

7 credit hours to complete certificate

Phlebotomy is a special one-semester program that consists of two courses combining classroom instruction, student laboratory, and clinical experience in affiliated medical laboratories. The program prepares students with career entry skills in phlebotomy, fulfills requirements for a Certificate of Completion in Phlebotomy, and completes prerequisites for certification by examination as a phlebotomist. All graduates of the Phlebotomy Program are eligible for national certification by examination by the Board of Registry, American Society of Clinical Pathologist (PBT category), or the National Certification Agency for Clinical Laboratory Personnel (CLPIb category). The Collin County Community College Phlebotomy Program is approved by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). All clinicals are under the supervision of a certified medical technologist or certified phlebotomist.

CAREER OPPORTUNITIES

Certified Phlebotomists may find employment opportunities with hospital laboratories, veterinary laboratories, multi-physician clinics, doctors' offices, health department laboratories, insurance companies, reference laboratories, and home health facilities.

SPECIAL ADMISSIONS REQUIREMENTS

- Proof of high school diploma or GED
- Complete program application procedure
- Complete CCCC reading and mathematics assessments
- Evidence of good physical and mental health

Practicum space is limited, so students will be admitted on a selected basis. Application must be submitted before August 1 for the fall semester and December 1 for the spring semester. Student liability and up-to-date immunizations are also required for all laboratories and practicums.

Registration is by permission only. Additional information and application packets may be obtained from the Health Sciences, Physical Education, and Child Development Office.

Phlebotomy Certificate	7 credit hours
A. HLSC 1500 Phlebotomy . . . . .	.5
B. HLSC 1200 Phlebotomy Practicum . . . . .	.2

PHYSICAL THERAPIST ASSISTANT

72 credit hours required to graduate

The Physical Therapist Assistant (PTA) program is designed to prepare skilled technical health workers to perform certain physical therapy procedures and related tasks under the direction and supervision of a licensed physical therapist. The PTA degree is not a transitional degree to becoming a master or doctorate entry-level licensed physical therapist.

The PTA curriculum balances educational and technical courses and includes hands-on, supervised practicum at local hospitals and clinics. Upon successful completion of the program, the student is awarded an Associate of Applied Science degree and is eligible to sit for the licensing examination administered by the Federation of State Boards of Physical Therapy (FSBPT) and reported to the Texas Board of Physical Therapy Examiners.

This is a two-year course of study between Grayson County College and Collin County Community College. Students applying to this program need to be aware that required courses will be taught at both campuses and that dependable transportation to the CCCC campus is the responsibility of the individual.

ACCREDITATION

The GCC/CCCC PTA program is an accredited physical therapy education program as recognized by the Commission on Accreditation in Physical Therapy Education (CAPTE) of the American Physical Therapy Association (APTA).

“Accreditation by CAPTE/APTA recognizes publicly those education programs for the physical therapist and physical therapist assistant that demonstrate the levels of performance, integrity, and quality which entitle

them to the confidence of the profession, the community they serve, and the general public. CAPTE accreditation attempts to assure that recognized programs prepare graduate who will be effective in contemporary practice.”

SPECIAL ADMISSION REQUIREMENTS

- Application deadline is January 31 for fall entry
- Proof of high school graduation or GED
- Official copies of all college transcripts
- Complete college assessments (if TASP exempt) or TASP within 5 years
- Complete PSB exam
- A handwritten, one-to-two page essay that explains the applicant's interest in the PTA program
- Minimum of 20 hours of observation in two different physical therapy clinics (for a total of 40 hours), or two previous work experiences in physical therapy

Registration is by permission only. Information and applications may be obtained from the Health Sciences, Physical Education, and Child Development Division office.

I. Pre-Entrance Requirements	7 credit hours
A. BIOL 2401 Anatomy and Physiology I . . . . .	.4
B. MATH 1314 College Algebra . . . . .	.3
II. Summer Semester	7 credit hours
A. BIOL 2402 Anatomy and Physiology II . . . . .	.4
B. HLSC 1300 Medical Terminology . . . . .	.3
III. Second Semester	18 credit hours
A. ENGL 1301 Composition and Rhetoric I . . . . .	.3
B. PSYC 2301 General Psychology . . . . .	.3
C. PTHA 1201 The Profession of Physical Therapy . . . . .	.2
D. PTHA 1321 Clinical Pathophysiology . . . . .	.3
E. PTHA 1305 Basic Patient Care Skills . . . . .	.3
F. PTHA 1413 Functional Anatomy . . . . .	.4
IV. Third Semester	18 credit hours
A. COSC 1306 Introduction to Computer Science . . . . .	.3
B. PTHA 1431 Physical Agents . . . . .	.4
C. PTHA 2201 Assessment & Measurement Skills . . . . .	.2
D. PTHA 2205 Clinical Neurology . . . . .	.2
E. PTHA 2409 Therapeutic Exercise . . . . .	.4
F. SPCH 1311 Fundamentals of Speech . . . . .	.3
V. Summer Semester	5 credit hours
A. PSYC 2314 Child and Life Span Development . . . . .	.3
or PSYC 2315 Psychology of Adjustment . . . . .	.3
B. PTHA 1266 Practicum I - Physical Therapist Assistant . . . . .	.2
VI. Fourth Semester	11 credit hours
A. Humanities/Visual Arts . . . . .	.3
HUMA 1301 Introduction to Humanities	
or ARTS 1301 Art Appreciation	
or ARTS 1303 Art History I	
or ARTS 1304 Art History II	
or DRAM 1310 Introduction to Theatre	

or MUSI 1306	Music Appreciation
or MUSI 1310	Survey of American Music
or PHIL xxxx	Any Philosophy Course
B. PTHA 2431	Management of Neurological Disorders4
C. PTHA 2435	Rehabilitation Techniques4

VII. Fifth Semester 6 credit hours

A. PTHA 2202	Professional Issues (Capstone)2
B. PTHA 2266	Clinical Practicum II2
C. PTHA 2267	Clinical Practicum III2

REAL ESTATE

63 credit hours required to graduate

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

Students will explore a variety of topics including:

- Fundamentals and principles of real estate
- Sources of financing
- State and federal influences on financing
- Legal rights of owners, buyers and brokers
- Property appraisal
- Contract negotiations
- Closing

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

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

CAREER OPPORTUNITIES

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

- | | |
|------------------------|--------------|
| • Brokerage | • Counseling |
| • Appraisal | • Education |
| • Finance | • Insurance |
| • Property Development | |

I. General Education Core - AAS 22 credit hours

See page 45.

II. Technical Core 8 credit hours

A. BUSI 1301	Introduction to Business3
B. ENGL 1302	Composition/Rhetoric II3
C. OFAD 1200	Computer Keyboarding2

III. Major Courses 24 credit hours

A. RELE 1301	Principles of Real Estate3
B. RELE 1311	Real Estate Law of Contracts3
C. RELE 1319	Real Estate Finance3
D. RELE 1321	Real Estate Marketing3
E. RELE 1325	Real Estate Mathematics3
F. RELE 2301	Law of Agency3
G. RELE 2309	Principles of Real Estate II3
H. RELE 2381	Cooperative Education - Real Estate (Capstone)3

IV. Electives 9 credit hours

Minimum 3 credit hours in the Major Electives; the other 6 credit hours may be selected from either the Major or Related Electives listed:

Major Electives 9 credit hours

A. RELE 1303	Real Estate Appraisal3
B. RELE 1307	Real Estate Investment3
C. RELE 1309	Real Estate Law3
D. RELE 1315	Property Management3
E. RELE 1327	Real Estate Commercial Appraisal3
F. RELE 1391	Special Topics in Real Estate3
G. RELE 2331	Real Estate Brokerage3

Related Electives 0-6 credit hours

A. ACCT 2301	Principles of Accounting I3
B. BMGT 1303	Principles of Management3
C. BUSG 1302	Principles of Retailing3
D. BUSG 2309	Small Business Management3
E. BUSI 2301	Business Law3
F. CSCI 2305	Integrated Spreadsheets3
G. HRPO 2301	Special Topics in Labor/Personal Relations and Studies3
H. RELE 1105	Uniform Standards of Professional Appraisal Practice1
I. RELE 1380	Cooperative Education - Real Estate3
J. RELE 2103	Real Estate Mandatory Continuing Education1

REAL ESTATE CERTIFICATES

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

Real Estate Brokers 24 credit hours

A. RELE 1301	Principles of Real Estate3
B. RELE 1319	Real Estate Finance3
C. RELE 1321	Real Estate Marketing3
D. RELE 1325	Real Estate Mathematics3
E. RELE 2301	Law of Agency3
F. RELE 2309	Principles of Real Estate II3

Electives 6 credit hours

A. RELE 1105	Uniform Standards of Professional Appraisal Practice1
B. RELE 1303	Real Estate Appraisal3

C.	RELE	1307	Real Estate Investment	3
D.	RELE	1309	Real Estate Law	3
E.	RELE	1311	Real Estate Law of Contracts	3
F.	RELE	1315	Property Management	3
G.	RELE	1327	Real Estate Commercial Appraisal	3
H.	RELE	1380	Cooperative Education - Real Estate	3
I.	RELE	2331	Real Estate Brokerage	3
J.	RELE	2381	Cooperative Education - Real Estate (Capstone)	3
K.	Any Texas Real Estate Commission approved, accredited college-related courses			
L.	Other course work approved by the Program Coordinator			

Real Estate General 15 credit hours

A.	RELE	1301	Principles of Real Estate	3
B.	RELE	2301	Law of Agency	3
C.	RELE	2309	Principles of Real Estate II	3

Electives 6 credit hours

A.	RELE	1105	Uniform Standards of Professional Appraisal Practice	1
B.	RELE	1303	Real Estate Appraisal	3
C.	RELE	1307	Real Estate Investment	3
D.	RELE	1309	Real Estate Law	3
E.	RELE	1311	Real Estate Law of Contracts	3
F.	RELE	1315	Property Management	3
G.	RELE	1319	Real Estate Finance	3
H.	RELE	1321	Real Estate Marketing	3
I.	RELE	1325	Real Estate Mathematics	3
J.	RELE	1327	Real Estate Commercial Appraisal	3
K.	RELE	1380	Cooperative Education - Real Estate	3
L.	RELE	2103	Real Estate Mandatory Continuing Education	1
M.	RELE	2331	Real Estate Brokerage	3
N.	RELE	2381	Cooperative Education - Real Estate (Capstone)	3
O.	Any Texas Real Estate Commission approved, accredited college-related courses			
P.	Other course work approved by the Program Coordinator			

RESPIRATORY CARE

72 credit hours required to graduate

Respiratory Care offers a program which prepares individuals for an allied health specialty in clinical care and management of respiratory disorders. The 22-month program graduates a student with an Associate in Applied Science degree and qualifies the individual to apply for the Registered Respiratory Therapist board examination.

In this program, the minimum passing grade for all academic courses is a "C". The minimum passing grade for all Respiratory Care lecture courses is a "C". A grade of "B" is required for all Respiratory Care clinical courses.

PROGRAM COMPLETION REQUIREMENTS

All students are required to complete comprehensive program examinations to receive their certificate of completion and degree. The CRT SAE will be given in the fall semester of the second year. The RRT SAE will be given in the spring semester. The student will have two opportunities to pass both exams. Satisfactory completion is required for graduation from the program.

All students must complete BIOL 2401 and BIOL 2402 prior to entering clinical rotations during the summer semester.

TRANSITION PROGRAM

The college offers a transition program to allow students who hold a CRTT credential and have one year of experience to receive their degree and become registry-eligible. Contact the program director 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.

SPECIAL ADMISSION REQUIREMENTS

- Proof of high school graduation or GED
- Official copies of all college transcripts
- Complete CCCC reading, writing and mathematics assessments
- Complete Psychological Services Bureau, Health Occupations Aptitude Exam
- Complete the written and skills exam in EMTP 1100 according to the standards set by the American Heart Association

Registration is by permission only. Information and applications may be obtained from the Health Sciences, Physical Education and Child Development Division office or the program coordinator.

I. Pre-Entrance Requirements

- Prepared to enter BIOL 2401 (Anatomy and Physiology I) with completion of:
 - a. Two years of high school biology
 - b. BIOL 1406 (General Biology I)
- Prepared to enter college-level math

II. First Semester 16 credit hours

A.	BIOL	2401	Anatomy and Physiology I	4
B.	RTTP	1300	Respiratory Care Science	3
C.	RTTP	1400	Fundamentals of Respiratory Care I	4
D.	RTTP	1500	Clinical Practice I	5

III. Second Semester 16 credit hours

A.	BIOL	2402	Anatomy and Physiology II	4
B.	RTTP	1205	Respiratory Pharmacology	2
C.	RTTP	1310	Clinical Practice II	3
D.	RTTP	1315	Respiratory Disease	3
E.	RTTP	1405	Fundamentals of Respiratory Care II	4

IV. Summer Semester	7 credit hours
A. RTTP 1320	Clinical Practice III3
B. RTTP 1410	Fundamentals of Respiratory Care III4
V. Fourth Semester	15 credit hours
A. MATH 1314	College Algebra3
or MATH 1324	Pre-Calculus for Business and Economics . .3
or MATH 1342	Statistics3
B. PSYC 2301	General Psychology3
or PSYC 2302	Applied Psychology3
or SOCI 1301	Introduction to Sociology3
C. RTTP 2310	Perinatal Respiratory Care3
D. RTTP 2320	Advanced Respiratory Care3
E. RTTP 2330	Clinical Practice IV3
VI. Fifth Semester	18 credit hours
A. BIOL 2420	Microbiology4
B. EMTP 1100	Advanced Cardiac Life Support1
C. ENGL 1301	Composition and Rhetoric I3
D.	Humanities/Fine Arts/Philosophy ¹3
E. RTTP 2110	Clinical Simulations1
F. RTTP 2340	Clinical Practice V (Capstone)3
G. RTTP 2350	Advanced Patient Assessment3

¹Choose a Humanities/Fine Arts/Philosophy course from the General Education Core for the Associate of Applied Science Degree on page 45.

SEMICONDUCTOR MANUFACTURING TECHNOLOGY

70 credit hours required to graduate

This program is designed to prepare students to work in the semiconductor manufacturing industry. Semiconductor manufacturing consists of a series of complex processes by which miniaturized electrical devices or microchips are created for electronic equipment. Students would 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. This program is a joint workforce education program with Richland College.

The degree program consists of 70 credit hours, with 44 hours in the major area of study, 11 hours in technical core courses, 15 hours in general education core courses and 3 hours of electives. This prepares students for employment as semiconductor equipment technicians. As an alternative, students may complete a 38-credit hour certificate program that certifies them for employment as a semiconductor equipment operator.

CAREER OPPORTUNITIES

The semiconductor manufacturing industry is growing dramatically, thanks to the speed with which technological changes are incorporating microelectronic devices in our everyday lives. Microchips are critical components in a multitude of products for the home, office, and car. The semiconductor technician/operator is listed as a statewide targeted occupation by the Texas State Occupational Information Coordinating Committee in its June 1996 report on Texas Emerging and Evolving

Occupations. The Dallas/Fort Worth metroplex semiconductor industry projects a growth of 12,000 jobs over the next five years. North Texas has the largest concentration of semiconductor industries in the nation.

I. General Education Core - AAS	15 credit hours
See page 45.	
Higher levels of mathematics courses can be taken.	
PSYC 2302 is recommended for SMFT majors.	
II. Technical Core	11 credit hours
A. MATH 1316	Trigonometry3
B. PHYS 1401	General Physics4
C. CHEM 1405	Introduction to Chemistry4
III. Major Courses	44 credit hours
A. CETT 1403	DC Circuits*4
B. CETT 1405	AC Circuits*4
C. CETT 1425	Digital Fundamentals*4
D. CETT 1429	Solid State Devices*4
E. CETT 1457	Linear Integrated Circuits4
F. CPMT 2337	Microcomputer Interfacing3
G. EECT 1380	Cooperative Education - Electrical, Electronic, & Communications Engineering Technology3
H. ELMT 2437	Electronic Troubleshooting, Service, and Repair4
I. ENTC 1445	Fluid Power4
J. INMT 1447	Industrial Automation4
K. SMFT 1343	Semiconductor Manufacturing Technology I*3

* Tech Prep courses which may have been completed in high school.

IV. Electives	3 credit hours
A. EECT 1381	Cooperative Education - Electrical, Electronic, & Communications Engineering Technology3
B. SMFT 2343	Semiconductor Manufacturing Technology II3

SEMICONDUCTOR MANUFACTURING TECHNOLOGY CERTIFICATE

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

Semiconductor Manufacturing Operator*	38 Credit Hours
A. CETT 1403	DC Circuits*4
B. CETT 1405	AC Circuits*4
C. CHEM 1405	Introduction to Chemistry4
D. EECT 1380	Cooperative Education - Electrical, Electronic, & Communications Engineering Technology3
E. ENGL 1301	Composition/Rhetoric3
F. ENTC 1445	Fluid Power4

G.	MATH	1314	College Algebra ¹ . . . . .	.3
H.	MATH	1316	Trigonometry . . . . .	.3
I.	PHYS	1401	General Physics I . . . . .	.4
J.	PSYC	2302	Applied Psychology . . . . .	.3
K.	SMFT	1343	Semiconductor Manufacturing Technology I* . . . . .	.3

¹Higher level mathematics course may be used.

*Tech Prep courses which may have been completed in high school.

SMALL BUSINESS MANAGEMENT

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

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

CAREER OPPORTUNITIES

The Small Business Management Certificate provides the essential core of management practices and prepares students for:

- Entrepreneurship
- Manufacturing
- Construction
- Retail
- Services
- Personnel

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

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

Small Business Management Certificate			15 credit hours	
A.	BMGT	1302	Principles of Retailing . . . . .	.3
B.	BUSG	1315	Small Business Operations . . . . .	.3
C.	BUSG	1341	Small Business Financing . . . . .	.3
D.	BUSG	2309	Small Business Management . . . . .	.3
E.	MRKG	1311	Principles of Marketing . . . . .	.3

TELECOMMUNICATIONS TECHNOLOGY

72 credit hours required to graduate.

Collin County Community College is located in the heart of the “Telecom Corridor” and is fortunate to be surrounded by the leaders in the Telecommunications industry. CCCC’s 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.

CAREER OPPORTUNITIES

The Telecommunications Technology program is designed to provide numerous specialization certifications that prepare students for employment in the following career areas:

- Telecommunications Equipment Installation
- Customer Service
- Manufacturing
- Switching Technology
- Transmission Technology
- Wireless Communications

Related Cooperative Education courses provide students the opportunity to get hands-on experience in state-of-the-art companies, thus further preparing themselves for successful employment in this high-tech, high-growth field.

I. General Education Core 22 Credit Hours

A.	ENGL	1301	Composition/Rhetoric I . . . . .	.3
B.	SPCH	1311	Fundamentals of Speech Communications ¹ .3	
C.	MATH	1314	College Algebra ² . . . . .	.3
D.	MATH	1316	Trigonometry ² . . . . .	.3
E.	PHYS	1401	General Physics I . . . . .	.4
F.	PSYC	2302	Applied Psychology . . . . .	.3
or	PSYC	2301	General Psychology . . . . .	.3
G.			Any HUMA/Fine Arts Course . . . . .	.3

¹ May substitute SPCH 1315 or SPCH 1321

² Higher-level course may be used

II. Technical Core 25 credit hours

A.	CETT	1325	Digital Fundamentals* . . . . .	.3
B.	CETT	1431	Technical Programming* . . . . .	.4
C.	CETT	1409	DC-AC Circuits* . . . . .	.4
D.	EECT	1380	Cooperative Education - Electrical, Electronic, & Communications Engineering Technology . . . . .	.3
E.	EECT	2435	Telecommunications (Capstone) . . . . .	.4
F.	EECT	2439	Communications Circuits . . . . .	.4
G.	INTC	1305	Introduction to Electronic Instrumentation .3	

*Tech Prep courses which may have been completed in high school.

III. Specializations

Students must take a minimum of 25 credit hours in one of the following specializations.

Telecommunications Customer Service 25 credit hours

Choose 13 credit hours from the following:

- A. EECT 1300 Technical Customer Service3
- B. EECT 1301 Introduction to Telecommunications3
- C. EECT 2433 Telephone Systems4
- D. EECT 1346 Telecommunications Traffic Engineering . . .3
- or EECT 1344 Telecommunications Broadband Systems . . .3

Choose 3 or 4 credit hours from the following:

- A. EECT 2330 Telecommunications Switching3
 - B. EECT 2340 Telecommunications Central Office
Equipment3
 - C. EECT 2342 Telecommunications Private Branch
Exchange (PBX)3
 - D. EECT 2444 Telecommunications Tandem Switching
Equipment4
 - E. CNWT 2431 Network Hardware4
- Electives (See IV. below)8-9 credit hours

Telecommunications Manufacturing 25 credit hours

Choose 13 credit hours from the following:

- A. EECT 1300 Technical Customer Service3
- B. EECT 1301 Introduction to Telecommunications3
- C. EECT 1344 Telecommunications Broadband Systems . . .3
- D. CETT 1429 Solid State Devices*4
- or EECT 2433 Telephone Systems4

**This Tech Prep course may have been taken in high school.*

Choose 3 or 4 credit hours from the following:

- A. CNWT 2431 Network Hardware4
 - B. EECT 2330 Telecommunications Switching3
 - C. EECT 2340 Telecommunications Central Office
Equipment3
 - D. EECT 2342 Telecommunications Private Branch
Exchange (PBX)3
 - E. EECT 2444 Telecommunications Tandem Switching
Equipment4
- Electives (See IV. below)8-9 credit hours

Telecommunications Switching 25 credit hours

Complete all 12 credit hours listed below:

- A. EECT 1300 Technical Customer Service3
- B. EECT 1301 Introduction to Telecommunications3
- C. EECT 2330 Telecommunications Switching3
- D. EECT 2332 Telecommunications Signaling3

Choose 3 or 4 credit hours from the following:

- A. CNWT 2431 Network Hardware4
 - B. EECT 2340 Telecommunications Central Office
Equipment3
 - C. EECT 2342 Telecommunications Private Branch
Exchange (PBX)3
 - D. EECT 2444 Telecommunications Tandem Switching
Equipment4
- Electives (See IV. below)9-10 credit hours

Telecommunications Transmission 25 credit hours

Choose 12 credit hours from the following:

- A. EECT 1300 Technical Customer Service3
- B. EECT 1301 Introduction to Telecommunications3
- C. EECT 1344 Telecommunications Broadband Systems . . .3
- D. EECT 1340 Telecommunications Transmission Media . . .3
- or EECT 2332 Telecommunications Signaling3

Choose 3 or 4 credit hours from the following:

- A. CNWT 2431 Network Hardware4
 - B. EECT 2330 Telecommunications Switching3
 - C. EECT 2340 Telecommunications Central Office
Equipment3
 - D. EECT 2342 Telecommunications Private Branch
Exchange (PBX)3
 - E. EECT 2444 Telecommunications Tandem Switching
Equipment4
- Electives (See IV. below)8-9 credit hours

Wireless Telecommunications 25 credit hours

Choose 13 credit hours from the following:

- A. EECT 1300 Technical Customer Service3
- B. EECT 1301 Introduction to Telecommunications3
- C. EECT 2337 Wireless Telephony3
- D. LOTT 1401 Introduction to Fiber Optics4
- or LOTT 2440 Microwave Fundamentals4

Choose 3 or 4 credit hours from the following:

- A. CNWT 2431 Network Hardware4
 - B. EECT 2330 Telecommunications Switching3
 - EECT 2340 Telecommunications Central Office
 Equipment3
 - D. EECT 2342 Telecommunications Private Branch
Exchange (PBX)3
 - E. EECT 2444 Telecommunications Tandem Switching
Equipment4
- Electives (See IV. below)8-9 credit hours

IV. Electives

- A. CETT 1429 Solid State Devices4
- B. CETT 1441 Solid State Circuits4
- C. CETT 1457 Linear Integrated Circuits4
- D. CNWT 2431 Network Hardware4
- E. CPMT 2337 Microcomputer Interfacing4
- F. EECT 1191 Special Topics in Electrical, Electronic, &
Communications Engineering Technology* . . .1
- G. EECT 1291 Special Topics in Electrical, Electronic
& Communications Engineering
Technology*2
- H. EECT 1302 Introduction to Videoconferencing3
- I. EECT 1340 Telecommunications Transmission Media . . .3
- J. EECT 1344 Telecommunications Broadband Systems* . . .3

K.	EECT	1346	Telecommunications Traffic Engineering . . .	3
L.	EECT	1381	Cooperative Education - Electrical, Electronic & Communications Engineering Technology	3
M.	EECT	1391	Special Topics in Electrical, Electronic & Communications Engineering Technology*	3
N.	EECT	1491	Special Topics in Electrical, Electronic & Communications Engineering Technology*	4
O.	EECT	1448	Digital Signal Processing (DSP)	4
P.	EECT	2330	Telecommunications Switching	3
Q.	EECT	2332	Telecommunications Signaling	3
R.	EECT	2337	Wireless Telephony Systems	3
S.	EECT	2340	Telecommunications Central Office Equipment	3
T.	EECT	2342	Telecommunications Private Branch Exchange (PBX)	3
U.	EECT	2433	Telephone Systems	4
V.	EECT	2444	Telecommunications Tandem Switching Equipment	4
W.	INTC	1305	Introduction to Electronic Instrumentation . .	3
X.	LOTT	1401	Introduction to Fiber Optics	4
Y.	LOTT	2440	Microwave Fundamentals	4

*These courses may be repeated as topics change.

TELECOMMUNICATIONS TECHNOLOGY CERTIFICATE

35 credit hours required to complete certificate

I. Telecommunications Core	25 credit hours	
A. CETT 1325	Digital Fundamentals*	3
B. CETT 1431	Technical Programming*	4
C. CETT 1409	DC-AC Circuits*	4
D. EECT 1380	Cooperative Education - Electrical, Electronic, & Communications Engineering Technology	3
E. EECT 2435	Telecommunications (Capstone)	4
F. EECT 2439	Communication Circuits	4
G. INTC 1305	Introduction to Electronic Instrumentation . .	3

*Tech Prep courses which may have been completed in high school.

II. Specializations

Telecommunications Customer Service	10 credit hours	
A. EECT 1300	Technical Customer Service	3
B. EECT 1301	Introduction to Telecommunications	3
C. EECT 2433	Telephone Systems	4



Telecommunications Manufacturing	10 credit hours	
A. EECT 1300	Technical Customer Service	3
B. EECT 1301	Introduction to Telecommunications	3
C. EECT 1429	Solid State Devices*	4

*This Tech Prep course may have been taken in high school.

Telecommunications Switching	10 credit hours	
A. EECT 1300	Technical Customer Service	3
B. EECT 2330	Telecommunications Switching	3
C. EECT 2433	Telephone Systems	4

Telecommunications Transmission	10 credit hours	
A. EECT 1300	Technical Customer Service	3
B. EECT 1344	Telecommunications Broadband Systems . .	3
C. EECT 2433	Telephone Systems	4
or LOTT 1401	Introduction to Fiber Optics	4
or LOTT 2440	Microwave Fundamentals	4

Wireless Telecommunications	10 credit hours	
A. EECT 1300	Technical Customer Service	3
B. EECT 2337	Wireless Telephony Systems	3
C. EECT 2433	Telephone Systems	4

ENHANCED SKILLS CERTIFICATE

12 credit hours		
A. EECT 2435	Telecommunications	4
B. EECT 2439	Communications Circuits	4
C. PHYS 1401	General Physics I	4



COURSE DESCRIPTIONS

A

ACCT 2301 PRINCIPLES OF ACCOUNTING I

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 PRINCIPLES OF ACCOUNTING II

Uses of accounting data by business management, cost behavior analysis, control of manufacturing product costing, cost-volume-profit analysis, budgeting controls, standard costing, responsibility accounting, capital budgeting, and analysis of financial statements. Lab required. Prerequisite: ACCT 2301 and COSC 1300. 3 credit hours.

ACNT 1303 INTRODUCTION TO ACCOUNTING I

Formerly ACCT 1370

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. 3 credit hours.

ACPE 0200 STUDY SKILLS

Explores various methods and techniques of improving study skills and habits, including time management, note taking, reading, communication, test preparation, test taking, problem-solving, and learning styles. May not be used to satisfy the requirements of an associate degree. 2 credit hours.

ACPE 1200 CAREER PLANNING AND COLLEGE SURVIVAL

Explore career options and acquire skills and information to facilitate successful achievement of educational and career goals. Included will be an understanding of programs and resources at CCCC, short and long range career strategies, and occupational opportunities. May not be used to satisfy the requirements of an associate degree. 2 credit hours.

ACPE 1205 LEADERSHIP AND PERSONAL DEVELOPMENT

Concepts of leadership and personal development will be explored both theoretically and practically, including communication styles, leadership strategies, goal setting, interpersonal relationships, and conflict resolution. May not be used to satisfy the requirements of an associate degree. 2 credit hours.

AGDT 1300 SURVEY OF APPLIED GRAPHIC DESIGN TECHNOLOGY

Introduction to Applied Graphic Design Technology, including various career opportunities, the workings of an agency or in-house studio, the relationship of art and visual communication, and the psychology of effective media use. Addresses technological advances that affect graphic design communications and introduces various forms of new media. Lecture only. 3 credit hours.

AGDT 1310 INTRODUCTION TO COMPUTER GRAPHICS

Introduction to the computer as an art tool. Exposure to various fields of computer graphics including electronic publishing and computer illustration. Explores basic computer functions: draw, paint, and text tools, terminology, technology, keyboard familiarization, mouse use, software function, and access. Lab required. 3 credit hours.

AGDT 1315 TYPOGRAPHY

Explores typography through the definition, design, beginning manipulation, psychology, and rendering of type. Practical knowledge of typography will be gained through hand skills and computer application. Lab required. Prerequisite: AGDT 1310. 3 credit hours.

AGDT 1320 INTRODUCTION TO ELECTRONIC IMAGING

Introduction to electronic imaging and color separation using the computer as the primary tool, including photo retouch and manipulation, scanned art imaging, and computer generated art image processing. Lab required. Prerequisite: AGDT 1310. 3 credit hours.

AGDT 1325 VISUAL COMMUNICATIONS I

Introduction to the field of graphic design, including basic terminology, tools, media, typography, layout and design concepts, reproduction process, and problem-solving. Lab required. Prerequisite: ARTS 1311. 3 credit hours.

AGDT 1326 VISUAL COMMUNICATIONS II

Intermediate level graphic design course emphasizing photo-ready production skills (traditional and computer), comp production, creative ads, marker skills, storyboards, and logo design. Lab required. Prerequisite: AGDT 1325. 3 credit hours.

AGDT 1330 BEGINNING ILLUSTRATION

Introduction to conceptual visualization of ideas; techniques of black and white, dry, and wet media are explored with emphasis on concept, light, value, line, and communication. Practical knowledge of illustration will be gained through real work assignments. Lab required. Prerequisite: ARTS 1316. 3 credit hours.

AGDT 1331 2D COMPUTER ILLUSTRATION

Explores computer graphics with applications in design, illustration, and other areas of graphic design as well as current trends in the field. Creative solutions will be stressed. Lab required. Prerequisites: AGDT 1310 and 1330. 3 credit hours.

AGDT 1332 INTRODUCTION TO 3D COMPUTER ILLUSTRATION

Introduction to the terminology and concepts of 3D computer illustration. Prerequisite: AGDT 1310; Prerequisite/Corequisite: AGDT 1320. 3 credit hours.

AGDT 1340 STORYBOARD AND SCRIPT DESIGN

Introduction to conceptualization, structure, visualization, and design of storyboards and scripts. Emphasis on storyboarding techniques for various media. Lecture only. 3 credit hours.

AGDT 1348 INTERACTIVE DESIGN

Instructional design concepts including various learning theories and media utilization for presentations, video, or interactive multimedia. Provides a forum for artistic conceptualization of many different types of physical and virtual interfaces. Through prototyping, students will understand the use of metaphors, menus, navigation, and effective design for look and feel. Lecture only. 3 credit hours.

AGDT 1350 INTRODUCTION TO MULTIMEDIA AUTHORIZING

Introduction to multimedia principles, theories, systems and applications. Exposure and experience in authoring software through the use of labs and projects. Lab required. Prerequisites: AGDT 1310 and 1340, or AGDT 1348. 3 credit hours.

AGDT 1351 INTERACTIVE MULTIMEDIA AUTHORIZING

Further exploration of multimedia principles, with practical application through work on continuing projects. Emphasis on interface design, instructional design issues, storyboard, and concept. Lab required. Prerequisite: AGDT 1350. 3 credit hours.

AGDT 1355 COLOR THEORY FOR DIGITAL MEDIA

Introduction to color theory with emphasis on color as it relates to non-print display, calibration, pixel properties, light mixing, and additive vs. subtractive theory. Exploration of color use in different digital media, digital photography, pre-press, video, and multimedia. Lab required. Prerequisite: AGDT 1310. 3 credit hours.

AGDT 2320 IMAGE PROCESSING

Continued study of image processing; use of photo manipulation software to create electronic images; color correction, separation, scanning, and output to high-end color and film printers. Lab required. Prerequisite: AGDT 1320. 3 credit hours.

AGDT 2325 ELECTRONIC PUBLISHING FOR GRAPHIC DESIGN

Exploration of electronic publishing software as a tool in graphic design page layout. Emphasis in the use of pre-press technology. Lab required. Prerequisites: AGDT 1310 and 1325. 3 credit hours.

AGDT 2326 GRAPHIC DESIGN AND PRODUCTION

Investigation of various graphic design problems with consideration of technical requirements and presentation techniques for camera-ready art. Current trends will be explored. Creative solutions and client presentation will be stressed. Lab required. Prerequisites: AGDT 1315 and 1325. 3 credit hours.

AGDT 2330 ILLUSTRATION

Problem-solving techniques for advertising illustration with consideration of technical requirements for camera-ready art. Current trends will be explored. Creative solutions and client presentation will be stressed. Lab required. Prerequisite: AGDT 1330. 3 credit hours.

AGDT 2331 ADVANCED 2D COMPUTER ILLUSTRATION

Advanced work in computer illustration, including color. Lab required. Prerequisites: AGDT 1331 and 2330. 3 credit hours.

AGDT 2332 3D COMPUTER ILLUSTRATION

3D illustration using the computer as the main tool. Concentrated exploration of computer modeling and rendering tools. Lab required. Prerequisite: AGDT 1320. 3 credit hours.

AGDT 2335 2D COMPUTER ANIMATION

Various aspects of 2D animation software. Students will develop concepts, storyboards, and produce a 2D animation with soundtrack. Lab required. Prerequisites: AGDT 1310 and 1340. 3 credit hours.

AGDT 2336 ADVANCED 2D COMPUTER ANIMATION

Advanced work in 2D computer animation. Further development of animated graphics and art for video, film, or interactive multimedia with emphasis on scripting. Lab required. Prerequisite: AGDT 2335. 3 credit hours.

AGDT 2340 3D COMPUTER ANIMATION

Introduction to 3D animation. Students will begin to produce a 3D animation with emphasis on concept, storyboard, and production. Lab required. Prerequisite: AGDT 2332. 3 credit hours.

AGDT 2341 ADVANCED 3D COMPUTER ANIMATION

Advanced work in 3D animation. Further development of photo-realistic, 3D animated images with soundtrack for artistic visualization, advertising, video, film, and interactive multimedia. Lab required. Prerequisite: AGDT 2340. 3 credit hours.

AGDT 2355 MULTIMEDIA STUDIO

Students work with real clients and develop completed client-directed and experimental personal projects. Explores various artistic options of multimedia software, display devices, video, and sound. May be repeated for credit. Lab required. Prerequisites: AGDT 1348, 1350, 2332, 2335, and consent of discipline coordinator. 3 credit hours.

AGDT 2360 VIDEO FOR MULTIMEDIA

Explores video production techniques for independent video production; includes all phases of production and pre-production. Computer graphics included where necessary. Lab required. Prerequisites: AGDT 1310 and 1340. 3 credit hours.

AGDT 2361 DIGITAL POST-PRODUCTION FOR MULTIMEDIA

Explores video post-production techniques for independent video production; includes all phases of video post-production. Computer graphics will be used where necessary. Lab required. Prerequisites: AGDT 1300, 1310, and 1340. AGDT 2360 is an additional prerequisite for those seeking the Digital Video degree. 3 credit hours.

AGDT 2370 PROFESSIONAL PRACTICES

Overview of professional practices required both in the workplace and as a freelance artist. Networking, professional organizations, presentation skills, job-seeking techniques, and portfolio development will be covered. Exit course for AGDT program. Prerequisite: Consent of discipline coordinator. 3 credit hours.

AGDT 2385 DIGITAL PHOTOGRAPHY II

Advanced electronic imaging. Increased hands-on experience using the digital camera, scanners, PhotoShop, and high-end image manipulation of large digital files. Lab required. Prerequisite: ARTS 2371. 3 credit hours.

AGDT 2390 SPECIAL TOPICS IN APPLIED GRAPHIC DESIGN TECHNOLOGY I

Current developments in the rapidly changing field of graphic technology are studied. May be repeated for credit as topics change. Lab required. 3 credit hours

3D Design I

Industrial design and 3D illustration; advanced work in 3D design and modeling. Prerequisite: Consult instructor.

Multimedia for the Internet

Create a home page for the Internet. Learn how to “surf the net”, the principles of hypermedia, layout organization, and HTML code construction. Develop cutting edge communication skills. Prerequisites: AGDT 1310 and 1320.

Virtual Reality

Introduction to Virtual Reality utilizing QuickTime Virtual Reality movies. Create single and multiple node VR panoramas as well as create object movies. Prerequisites: AGDT 1320, ARTS 2356, and consent of discipline coordinator.

AGDT 2391 SPECIAL TOPICS IN APPLIED GRAPHIC DESIGN TECHNOLOGY II

Current developments in the rapidly changing field of graphic technology are studied. May be repeated for credit as topics change. Lab required. 3 credit hours.

Advanced 3D Design I

Advanced work in 3D animation. Students are exposed to state of the art software and hardware with emphasis on 3D modeling and character animation pertaining to the entertainment industry. Prerequisite: Consult instructor.

Advanced Multimedia for the Internet

Advanced exploration of Internet and WWW technologies; design and construction of complex web sites. Extends basic knowledge gained in AGDT 2390 to include advanced HTML constructs, user interface development, CGI script design and development, and animation and image processing techniques for the web. Uses current state-of-the-art web technology. Prerequisite: AGDT 2390/Multimedia for the Internet.

AGDT 7300 COOPERATIVE EDUCATION I

Career-related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with career-related work experience. Credit is earned for completion of specific learning objectives and seminar participation. Contact the Cooperative Work Experience Office. Prerequisite: Consent of instructor. 3 credit hours.

AGDT 7305 COOPERATIVE EDUCATION II

Continuation of supervised on-the-job experience and career-related activities. Requires advanced learning objectives, increased levels of responsibility, and seminar participation. Contact the Cooperative Work Experience Office. Prerequisites: AGDT 7300 and consent of instructor. 3 credit hours.

ANTH 2301 PHYSICAL ANTHROPOLOGY

Overview of human origins and cultural adaptations combining study of our nearest relatives, the chimpanzees, with analysis of reproductions of fossil bones. Unit concerning forensic anthropology explains how crimes can be solved from analysis of skeletal material; students work with actual 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. Offered in Belize as a Maymester field course. 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. Includes 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 2349 ART DIRECTION II

Mastery of advanced art direction problems with emphasis on selected topics in advertising campaigns. Topics include written, oral, and visual skills. Advanced students from areas of production art, illustration, and computer graphics work in teams to produce advertising and illustration solutions for clients on and off campus. Prerequisite: Consent of discipline coordinator. 3 credit hours.

ARTS 1301 ART APPRECIATION

Introduction to the visual arts, emphasizing the understanding and appreciation of art. Reviews two- and three-dimensional art forms, methods, and media; examines the visual elements and principles of design; and briefly surveys art styles from the prehistoric to the 20th century. 3 credit hours.

ARTS 1303 ART HISTORY I

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

ARTS 1304 ART HISTORY II

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

ARTS 1311 DESIGN I

Introduction to two-dimensional visual organization dealing with basic elements and principles of design. Exploration of black and white, color, and a variety of media. Prepares students for composition in painting, drawing, and other two-dimensional art courses. Lab required. 3 credit hours.

ARTS 1312 DESIGN II

Introduction to three-dimensional design problems utilizing various sculpture materials. Exploration of form and methods in a variety of media. Prepares students for sculpture and other three-dimensional art courses. Design I is not a prerequisite. Lab required. 3 credit hours.

ARTS 1316 DRAWING I

Introduction to drawing including space, form, line, contour, gesture, texture, value, and composition. Learn observational skills in order to render the subjects of still life, figure, perspective, and landscape more accurately. Emphasis on technique, imagination, and use of a variety of materials. Lab required. 3 credit hours.

ARTS 1317 DRAWING II

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

ARTS 1370 PROBLEMS IN CONTEMPORARY ART-SELECTED TOPICS

In-depth study of concerns and practices in contemporary art. May be repeated for credit as topics change. Lab required. 3 credit hours.

Art and Computers

Explores the use of the computer as an artist's tool; includes creative design applications such as painting, image manipulation, and the translation of traditional techniques on the computer, as well as producing promotional brochures, exhibit announcements, and sculpture models/proposals.

International Art Studies

Offers students the opportunity to study art in global art centers; acquaints students with art that has influenced 20th century artists and impacted the culture in which we live.

Mixed Media Painting

Aids beginning and advanced students in discovering their innermost hopes, fears, values, and thought processes and guides them in developing their own personal art expression. Prerequisite: ARTS 1316 or consent of instructor.

Museums and Galleries

A special problems course offering the rare opportunity to study and view contemporary art in Dallas/Ft. Worth Metroplex museums, galleries, and private collections. Class meets off campus.

Printmaking/Screenprinting

Introduction to screenprinting techniques for paper and fabrics, including cut-paper stencils, hand-painted screens, and photographic stencil processes. Prerequisite: ARTS 1311 or consent of instructor.

Women in the Arts

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

ARTS 2311 INTRODUCTION TO COLOR/PAINTING

Practical application of current color theories used in both fine arts and commercial art. Emphasis on color perception and color psychology with exercises in transparent and opaque pigments, printing inks, and color photography. Lab required. Prerequisites: ARTS 1311 and 1316. 3 credit hours.

ARTS 2316 PAINTING I

Introduction to painting including use of materials, techniques, color study, and composition. Various painting styles will be practiced. Lab required. Prerequisite: ARTS 1316. 3 credit hours.

ARTS 2317 PAINTING II

Increases the student's ability to use various techniques, color, and composition with acrylics, oils, and other media. Explores realistic and abstract approaches to painting. Emphasis on design, imagination, personal expression, and painting style. Lab required. Prerequisite: ARTS 2316. 3 credit hours.

ARTS 2323 LIFE DRAWING I

Drawing of the life model including instruction in anatomical and creative approaches to figure drawing. Emphasis on personal expression and creativity. May be taken for up to 6 hours of credit, with the second semester of work being more advanced. Lab required. Prerequisite: ARTS 1316. 3 credit hours.

ARTS 2324 LIFE DRAWING II

Continuation of study of the life model; emphasis on personal expression and creativity. Lab required. Prerequisite: ARTS 2323. 3 credit hours.

ARTS 2326 SCULPTURE I

Study of three-dimensional form and introduction to sculpture techniques including basic methods of modeling, construction, and simple casting procedures. Exploration of various media including stone, wood, metal, plaster, and paper. Lab required. Prerequisite: ARTS 1312. 3 credit hours.

ARTS 2327 SCULPTURE II

Continued application of three-dimensional form and sculpture techniques gaining experience in composition and problem solving in various media. Emphasis on creative expression and personal style. Lab required. Prerequisite: ARTS 2326. 3 credit hours.

ARTS 2333 PRINTMAKING I

Introduction to the process of intaglio and relief printing including linoleum cuts, etching, aquatint, collagraph, and monotypes. Lab required. Prerequisite: ARTS 1316. 3 credit hours.

ARTS 2334 PRINTMAKING II

Continued application of the intaglio and relief printing processes gaining experience in composition and problem solving in various techniques. Emphasis on creative expression and personal style. Lab required. Prerequisite: ARTS 2333. 3 credit hours.

ARTS 2346 CERAMICS I

Introduction to ceramic design and methods including hand building techniques and use of the potter's wheel. Explores clays, glazing, and firing techniques including stoneware and raku. Lab required. 3 credit hours.

ARTS 2347 CERAMICS II

Further study of ceramic design, method, and media with exploration of various clays, glaze compositions, and kiln operations. Emphasis on creative expression and personal style. Lab required. Prerequisite: ARTS 2346. 3 credit hours.

ARTS 2356 PHOTOGRAPHY I

Introduction to photography: basic camera operations and darkroom techniques; emphasis on visual imagination and design. Lab required. 3 credit hours.

ARTS 2357 PHOTOGRAPHY II

Intermediate black-and-white course; emphasis on developing a visual language, problem-solving, craftsmanship, and learning to edit personal work. Technical considerations include print and negative quality, use of studio lighting, and large format cameras. Prerequisite: ARTS 2356. Lab required. 3 credit hours.

ARTS 2366 WATERCOLOR I

Introduction to watercolor including instruction in the use of brushes, papers, materials, and various painting techniques on wet and dry paper. Gain experience in mixing colors, color methods, and problem solving in the use of technique and in skillful observation of composition and painting style. Lab required. Prerequisite: ARTS 1316. 3 credit hours.

ARTS 2367 WATERCOLOR II

Increases the student's ability to master technique, identify the different pigment properties of color, and determine their best use. Exploration of different tools, papers, materials, and techniques will be practiced. Emphasis on personal expression and painting style. Lab required. Prerequisite: ARTS 2366. 3 credit hours.

ARTS 2370 PHOTOGRAPHY PORTRAYAL

Various photographic portrait styles, including both commercial and personal aspects of photographing the human subject. Covers documentary photography of people, the environmental portrait, and studio portraits. Creative approaches to the subject are encouraged. Prerequisite: ARTS 2357 or equivalent. Lab required. 3 credit hours.

ARTS 2371 CONTEMPORARY STUDIES IN VISUAL ARTS/PHOTOGRAPHY

In-depth study of concerns and practices in the visual arts. May be repeated for credit as topics change. Lab required. 3 credit hours.

Advanced Black-and-White Photography

Study and use of large format cameras, custom paper, and film developers, and application of the zone system in photography. Prerequisite: ARTS 2357.

Advanced Portrayal

Advanced portraiture with professional photographer's approach. Includes advanced studio techniques working with color and black-and-white materials. Emphasis on development of personal style. Prerequisite: ARTS 2370.

Alternative Processes

Experimental, antique, and non-silver printing processes as well as unconventional modes of presentation. The Gum-Bichromate process, the Cyanotype, the Kwik-Print, the Van Dycke and other alternate processes. Prerequisite: ARTS 2356; Recommended Prerequisite: ARTS 2357.

Architectural Photography

Explores the production of architectural images that go beyond mere documentation. Aesthetics, art, expression, communication, imagination, abstraction, reality, drama, and emotion are a few of the dimensions discussed focusing on sensitive photographs not dependent on the quality of the subject matter. Technical considerations include view camera technique. Prerequisite: ARTS 2357.

Collage/Montage

Contemporary aesthetic issues involving the use of multiple images and mediums. Students will be challenged to expand the information content and complexity of their photographic images. Prerequisite: ARTS 2357.

Color Photography

Aesthetic and technical elements inherent to color image-making. Historical background combined with current trends form a foundation for critical exploration into this medium. Prerequisite: ARTS 2357.

Digital Photography I/PhotoShop

Introduction to the Macintosh and PhotoShop. Hands-on experience with digital photography. Use a variety of image-capture devices, both digital and traditional; enhance and manipulate images with a core of PhotoShop. Prerequisite: ARTS 2356; Recommended Prerequisite: ARTS 2357.

Digital Photography II

Advanced level electronic imaging. Increased hands-on experience using the digital camera, scanners, PhotoShop, and high-end image manipulation of large digital files. Prerequisite: ARTS 2371-Digital Photography I.

Documentary Photography

Extension of the great documentary tradition. Production of social documentary photographs centered on a community phenomenon or dealing with issues in the urban area. Prerequisite: ARTS 2357.

Fashion Photography

Historical and current advertising fashion techniques. Emphasis on cultural contributions and outside artistic influence. Studio and location techniques considered. Prerequisite: ARTS 2357.

Hand-Coloring Photography

Includes archival processing, toning, photographic paper selection for hand-coloring, techniques, and subject material. Demonstrations, lectures, slides, field trips, and shootings are used. Prerequisite: ARTS 2356.

Infrared Photography

Various methods and techniques involving the use of this scientific material for artistic purposes. Prerequisite: ARTS 2357.

Landscape Photography

Explores aesthetic and technical aspects of landscape as a subject. Examines 18th century through modernist and post-modernist approaches to landscape as a primary source of meaning from both conceptual and design standpoints. Prerequisite: ARTS 2357.

Large Format Photography

Examines the technical requirements of large format cameras and the resulting aesthetic contribution to the photographic image. Zone system image management, photo chemistry, darkroom procedures, and contact printing are among the concepts investigated. Prerequisite: ARTS 2357.

Night Photography

Introduces a new photographic environment along with its accompanying technical requirements. Explores various artificial/available light sources and the special techniques required to take pictures in this challenging situation. Prerequisite: ARTS 2356.

Photographic Book Making

A disciplined craft approach to the presentation of visual art in book form. Students will address the special problems related to the preparation of an image book including editing, sequencing, overall design considerations, and book construction methods. Prerequisite: ARTS 2357.

Pinhole Photography

Exploration of lensless photography. Students will make a 4"x5" wide-angle foam core pinhole camera that will be used to make Cyanotype and Van Dyke prints. Pinhole cameras will be designed and constructed from unique materials that students choose to use for fabrication. Prerequisite: ARTS 2357.

Platinum/Palladium Photography

History of non-silver photography with emphasis on platinum/palladium processes. Examines the various techniques in non-silver printing, how to construct the emulsion from the basic compounds, and the results from different paper surfaces and different developing agents. Creative experimentation encouraged. Prerequisite: ARTS 2357.

Portfolio

Advanced study for the development of a high quality portfolio. Courses available in various art areas including painting, color theory, drawing, ceramics, sculpture, papermaking, printmaking, and photography. Prerequisite: Advanced class in field of study.

Portrayal/Lighting the Subject

Emphasis on lighting people in the studio and in the environment. Covers color and black-and-white films. Students are required to successfully complete an individual portfolio of final images and to complete individual assignments that result from problem solving. Prerequisite: ARTS 2357.

Seminar/Portfolio

Provides advanced artists with continuous critical feedback on work in progress. Weekly group critiques will be alternated with panel discussions, guest lecturers, and museum/gallery visits. Prerequisite: ARTS 2357.

Series/Sequence Photography

Investigates photographic images in context to the postmodern concepts of series, sequence, and scale. Prerequisite: ARTS 2356.

View Camera/Zone System

Examines the technical requirements of large format cameras and the resulting aesthetic contribution to the photographic image. Includes zone system image management, photo chemistry, darkroom procedures, and contact printing. Prerequisite: ARTS 2357.

ARTS 2372 HISTORY OF PHOTOGRAPHY

Study of the emergence and development of the first technological art form. Emphasis on the aesthetic and scientific issues that shape the visual literacy of today's society. From early woodcuts to high tech computer imaging, the information age is scrutinized in order to understand and appreciate photography's growing importance within the visual arts. 3 credit hours.

ARTS 2389 ACADEMIC CO-OP ARTS/PHOTOGRAPHY

Integrates on-campus study with practical hands-on work experience in art/photography. In conjunction with class seminars, the student will set specific goals and objectives in the study of art. Contact the Cooperative Work Experience Office. 3 credit hours.

B

BCIS 1310 BASIC PROGRAMMING

Formerly CSCI 1320

Study of fundamental programming logic using QBASIC for Windows. Lab required. Prerequisite: COSC 1300, CSCI 1305, or consent of instructor. 3 credit hours.

BCIS 1332 COBOL I

Formerly CSCI 2330

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

Formerly CSCI 2331

Emphasis on advanced techniques, disk accessing and storage, direct and sequential access, and console input and output. Lab required. Prerequisite: BCIS 1332. 3 credit hours.

BCIS 2390 SOFTWARE ENGINEERING

Formerly COSC 2380

Study of software design, implementation, and validation techniques through team projects. Prerequisite: One-year experience with a programming language or consent of instructor. Lab required. 3 credit hours.

BIOL 1322 GENERAL NUTRITION

Nutrients and nutritional processes including functions, food sources, digestion, absorption, and metabolism with application to normal and therapeutic human nutritional needs. For biology and nutrition majors. 3 credit hours.

BIOL 1323 NUTRITION FOR TODAY

Examines what role nutrients serve in the body, their sources, and how the body absorbs and utilizes them. Emphasizes latest nutritional information, especially implications for recommended eating patterns. For anyone interested in nutrition and how it relates to overall health and wellness; not intended for allied health or nutrition majors. 3 credit hours.

BIOL 1370 NUTRITION FOR FITNESS AND SPORT

Explores nutrient intake for energy systems during exercise training, competition, and improved performance. Nutrients, amounts needed, how they work in the body, and how they support and enhance physical activity will be addressed. Body weight and composition and weight gain or loss through exercise and diet are also discussed. Myths, misconceptions, and quackery in the sport nutrition field will be discussed and sound information learned. 3 credit hours.

BIOL 1406 GENERAL BIOLOGY I

For science majors. Current knowledge in the fundamentals of biology: concepts in cellular structure and function from the molecular to the organism level. Includes basic biochemistry, metabolism, energetics, molecular and cellular biology, DNA and genetics, viruses and bacteria, evolution, and ecology. Lab required. 4 credit hours.

BIOL 1407 GENERAL BIOLOGY II

For science majors. Biology of the protists, fungi, plants, and animals (with emphasis on the study of biological systems including organ systems, immunity, reproduction, development, diversity, and behavior). Dissection included. Lab required. Prerequisite: BIOL 1406. 4 credit hours.

BIOL 1408 INTRODUCTION TO BIOLOGY I

For non-science majors. Survey of biology including molecular and cellular biology, genetics, DNA, microbiology, evolution, and ecology. Emphasis on cellular and molecular basis of life; current topics in biology and medicine will be discussed. Lab required. 4 credit hours.

BIOL 1409 INTRODUCTION TO BIOLOGY II

For non-science majors. Biology of protists, fungi, plants, animals (with emphasis on general human anatomy and physiology), and animal behavior; current topics in biology and medicine will be discussed. Lab required. Prerequisite: BIOL 1408. 4 credit hours.

BIOL 1411 GENERAL BOTANY

Study of structure and function of plants. Includes plant cells, tissues, organs, an evolutionary survey, and life histories of algae, fungi, mosses, liverworts, ferns, and seed-producing plants. Plants' reproductive and functional interactions with their environment and with man. Lab required. 4 credit hours.

BIOL 1424 SYSTEMATIC BOTANY

Introduction to plant nomenclature, identification, classification, and evolutionary relationships of vascular plants with emphasis on flowering plants. Construction and use of taxonomic keys, role of herbaria, and collection techniques will be covered in both lecture and lab. Includes field trips to study local, state, and regional flora. Lab required. Prerequisite: BIOL 1411. 4 credit hours.

BIOL 1470 MARINE BIOLOGY

Morphological, physiological, and ecological adaptations of marine organisms to their environment. Lab required, including an international field trip. Prerequisite: BIOL 1406 or 1408, or consent of instructor. Preferred Prerequisite: BIOL 1407 or 1409. 4 credit hours.

BIOL 1471 HUMAN ANATOMY AND PHYSIOLOGY BASICS

Introductory course surveying the structure and function of the human body, including discussion and study of cells, tissues, organs, and systems. Not intended for allied health or science majors. Lab required. 4 credit hours.

BIOL 2370 SPECIAL PROBLEMS IN BIOLOGY

A research techniques course designed to enhance student interest in biological problems by utilizing the scientific method. To enroll, student must apply and be accepted by a Biology Department faculty member. May be repeated for additional credit. Prerequisite: Consent of instructor. 3 credit hours.

BIOL 2371 SPECIAL TOPICS IN BIOLOGY

In-depth study of various current topics in biology. May be repeated for credit as topics change. 3 credit hours.

Field Biology

Introduction to the methods used in gathering and analyzing data collected in terrestrial and aquatic environments. Emphasizes applied aspects of field research; enhances student interest in biological problems by utilizing the scientific method. Lab required with field trips. Prerequisite: BIOL 1406 or consent of instructor.

BIOL 2389 ACADEMIC CO-OP BIOLOGY

Integrates on-campus study with practical hands-on work experience in biology. In conjunction with class seminars, the student will set specific goals and objectives in the study of biology. Contact the Cooperative Work Experience Office. 3 credit hours.

BIOL 2401 ANATOMY AND PHYSIOLOGY I

Study of the comparative structure and function of the mammalian system with emphasis on anatomy. Includes a review of cell structure and function and an in-depth discussion of tissues, skin, skeletal, muscular, and nervous systems. Physiology of the systems is stressed. Laboratory section stresses system anatomy and includes dissection of a mammal, as well as study of models, slides, and charts correlating with lecture topics. Lab required. Prerequisite: BIOL 1406, two years of high school biology within the last five years, or consent of discipline coordinator. 4 credit hours.

BIOL 2402 ANATOMY AND PHYSIOLOGY II

Continued study of the structure and function of the mammalian system with emphasis on physiology. System topics include endocrine, cardiovascular, lymphatic, immune, respiratory, digestive, nutrition and metabolism, urinary, reproductive, heredity, and development. Lab includes study of models, slides, and charts as well as correlated physiological experiments and continued mammalian dissection. Lab required. Prerequisite: BIOL 1406 or consent of instructor. 4 credit hours.

BIOL 2406 INTRODUCTORY ECOLOGY

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 2418 INVERTEBRATE ZOOLOGY

Classification, anatomy, physiology, ecology, and evolutionary relationships of invertebrate animals. Lab will be correlated with animals studied in lecture and will include observation and dissection of invertebrates. Lab required. Prerequisite: BIOL 1407. 4 credit hours.

BIOL 2420 MICROBIOLOGY

Principles of microbiology including classification, cell structure, metabolism, and historical concepts of microorganisms such as bacteria, viruses, fungi, protozoa, and rickettsia. Emphasis on infectious diseases and immunology. Practical microbiology will include diagnostic microbiology of water, food, sewage, soil, and industrial applications. Lab methods are stressed and experimentation with pure cultures of medical, environmental, and industrial importance are studied extensively. Lab required. Prerequisite: BIOL 2401 within the last five years; Prerequisite/Corequisite: BIOL 2402. 4 credit hours.

BIOL 2428 COMPARATIVE VERTEBRATE ANATOMY

Comparative anatomy of representative vertebrates with emphasis on comparisons of organ systems, vertebrate adaptations, and evolution. Includes dissections of representative vertebrates. Lab required. Prerequisite: BIOL 1407. 4 credit hours.

BIOL 2470 HUMAN GENETICS

Principles of molecular and classical genetics and the function and transmission of hereditary material as applied to the human. Medical applications include genetic diseases, genetic counseling, and genetics involved in cancer and other acquired diseases. Includes field trips to genetic laboratories. Lab required. Prerequisite: BIOL 1406. Credit toward a degree will not be given for both BIOL 2416 and 2470. 4 credit hours.

BIOT 1302 INTRODUCTION TO BIOTECHNOLOGY

Introduction to biotechnology and molecular biology, including history of DNA technology, contemporary DNA technology, diverse applications, ethics, and report writing. Includes field trips to biotechnology laboratories. Lab required. 3 credit hours.

BIOT 1364 FIELD EXPERIENCE-BIOTECHNOLOGY

Practical general training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student that relates workplace training and experiences to the student's general and technical courses of study. The guided external experiences may be for pay or no pay. May be repeated for credit if topics and learning outcomes vary. Prerequisite: Consent of discipline coordinator. Contact the Cooperative Work Experience Office. 3 credit hours.

BIOT 2331 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. Taught by members of several disciplines. 3 credit hours.

BIOT 2366 FIELD EXPERIENCE-BIOTECHNOLOGY (CAPSTONE)

Practical general training and experiences in the workplace for the advanced student. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be for pay or no pay. May be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

BIOT 2400 MOLECULAR BIOLOGY METHODS AND TECHNIQUES I

Introduction to laboratory operations, management, safety, equipment, quality control, and techniques. Emphasis on lab safety and procedures. Focus on applications in basic biochemical and biological lab procedures: measurements, glassware care, equipment troubleshooting, determination of physical properties of common compounds, agent and solution preparation, mixing buffers, standardizing solutions, titration, filtration, extraction, recrystallization, and spectrophotometry. Lab required. 4 credit hours.

BIOT 2401 MOLECULAR BIOLOGY METHODS AND TECHNIQUES II

Emphasis on practical application of instrument use in the biotechnology laboratory. Focus on quantitative and qualitative analyses such as spectrophotometry, centrifugation, electrophoresis, and chromatography. Lab required. Prerequisite: BIOT 2400. 4 credit hours.

BIOT 2402 CELL CULTURE TECHNIQUES

Techniques of animal and plant cell culture. Focus on both the principles and practices of initiation, cultivation, maintenance, and preservation of cell lines followed by use of cultured cells in various assays. Lab required. 4 credit hours.

BIOT 2403 MOLECULAR BIOLOGY METHODS AND TECHNIQUES III

Continuation of core concepts and lab techniques in molecular biology. Emphasis on study of and laboratory handling of proteins and nucleic acids. Discusses some essential concepts in eukaryotic and prokaryotic anatomy and physiology. Projects individually tailored to the student's career focus. Lab required. Prerequisites: BIOT 2400 and 2401. 4 credit hours.

BMGT 1301 SUPERVISION

Formerly BUSI 1372

A study of the role of the supervisor. Managerial functions as applied to leadership, counseling, motivation, and human skills are examined. 3 credit hours.

BMGT 1302 PRINCIPLES OF RETAILING

Formerly SBMT 1310

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.

BMGT 1303 PRINCIPLES OF MANAGEMENT

Formerly BUSI 1370

Concepts, terminology, principles, theory, and issues that are the substance of the practice of management. 3 credit hours.

BMGT 1305 COMMUNICATIONS IN MANAGEMENT

Basic theory and processes of communication skills necessary for the management of an organization's workforce. 3 credit hours.

BMGT 1307 HIGH PERFORMANCE WORK TEAMS

Formerly BUSI 1378

Basic principles of building and sustaining teams in organizations including team dynamics and process improvement. 3 credit hours.

BMGT 1333 PRINCIPLES OF SELLING

Formerly MRKT 1315

Introduction to the selling process and its application to all forms of sales. Identification of the elements of the communication process between buyers and sellers in business and examination of the legal regulations and ethical issues of business which affect salespeople. 3 credit hours.

BMGT 1348 MARKETING RESEARCH AND STRATEGIES

Formerly MRKT 2305

Designed to enhance student understanding of the marketing environment and the dynamic interrelationships of the functions of marketing price, channels of distribution, promotion, and product responsibility. Provides a simulated marketing environment for experience in marketing decision-making and provides practical experiences in analyzing market cases for the students. 3 credit hours.

BMGT 1349 ADVERTISING AND SALES PROMOTION

Formerly MRKT 1310

Introduction to the advertising principles, practices, and multi-media of persuasive communication including buyer behavior, budgeting, and regulatory constraints. 3 credit hours.

BMGT 1381 COOPERATIVE EDUCATION-GENERAL RETAILING OPERATIONS

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

BMGT 1382 COOPERATIVE EDUCATION-BUSINESS ADMINISTRATION AND MANAGEMENT, GENERAL

Formerly BUSI 7300

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and students. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

BMGT 1391 SPECIAL TOPICS IN BUSINESS ADMINISTRATION AND MANAGEMENT

Formerly BUSI 2378

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. 3 credit hours.

BMGT 1396 SPECIAL TOPICS IN GENERAL RETAILING OPERATIONS

Formerly MRKT 1316

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. 3 credit hours.

BMGT 2309 LEADERSHIP

Formerly BUSI 1371

Concepts of leadership and its relationship to management. Prepares the student with leadership and communication skills needed to inspire and influence. 3 credit hours.

BMGT 2311 MANAGEMENT OF CHANGE

Formerly BUSI 2373

Knowledge, skills, and tools that enable a leader/organization to facilitate change in a pro-active participative style. 3 credit hours.

BMGT 2331 TOTAL QUALITY MANAGEMENT

Formerly BUSI 2370

Quality of productivity in organizations. Includes planning for quality throughout the organization, analysis of costs of quality, and employee empowerment. 3 credit hours.

BMGT 2341 STRATEGIC MANAGEMENT

Formerly BUSI 2376

Strategic management process involving analysis of how organizations develop and implement a strategy for achieving organizational objectives in a changing environment. 3 credit hours.

BMGT 2374 FINANCIAL MANAGEMENT

Emphasis is given to the development and use of accounting information to support managerial decision-making processes in manufacturing, service, and for-profit settings. Topics include managerial concepts and systems, various analysis for decision-making, and planning and control. 3 credit hours.

BMGT 2382 COOPERATIVE EDUCATION-BUSINESS ADMINISTRATION AND MANAGEMENT, GENERAL (CAPSTONE)

Formerly BUSI 7305

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

BUSG 1315 SMALL BUSINESS OPERATIONS

Formerly SBMT 2300

A course in the unique aspects of managing a small business. Topics address management functions including how managers plan, exercise leadership, organize, and control the operation. 3 credit hours.

BUSG 1341 SMALL BUSINESS FINANCING

Formerly SBMT 1305

A study of the financial structure of small business. Topics address business finance, including where the funds come from and what they are used for; budgeting including planning and preparing, record keeping, taxation, insurance, and banking. 3 credit hours.

BUSG 2309 SMALL BUSINESS MANAGEMENT

Formerly SBMT 1300

A course on how to start and operate a small business. Topics include facts about a small business, essential management skills, how to prepare a business plan, financial needs, marketing strategies, and legal issues. 3 credit hours.

BUSI 1301 INTRODUCTION TO BUSINESS

A survey of business operations, emphasizing ownership, management, marketing, financial, legal, regulatory, and ethics issues, in both the domestic trade and the international trade environment. The emphasis is on the role of business in a free-market system. Problems of adapting to different political, economic, and sociological systems are examined. 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 1376 INTERNATIONAL BUSINESS

Introduction to international trade. Overview of managerial, financial, and marketing issues for the operation of small or large firms in or entering world trade. Problems of adaptation to different sociological, legal, political, and economic characteristics are emphasized. 3 credit hours.

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.

BUSI 2379 SELECTED TOPICS IN BUSINESS PRINCIPLES

Provides an overall picture of business operations, develops a business vocabulary, and directs the thinking of each student to the field of business best suited to his/her interests and talents. Includes an analysis of the specialized fields within the business organization and of the role of business in modern society. Prerequisites and topics covered will be annotated in each semester's Schedule of Classes. May be repeated for credit as topics change. 3 credit hours.

Business of Theatre

Examines the business and marketing aspects of theatre, including processes of self-promotion for actors, designers, and directors and processes of marketing and promotion of a theatre season or production. May transfer as a business elective to most institutions.



CDEC 1303 FAMILY AND THE COMMUNITY

A study of the relationship between the child, the family, the community, and early childhood educators, including a study of parent education, family and community lifestyles, child abuse, and current issues. Lab required. 3 credit hours.

CDEC 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.

CDEC 1313 CURRICULUM RESOURCES FOR EARLY CHILDHOOD PROGRAMS

Fundamentals of curriculum design and implementation in developmentally appropriate programs for young children. Lab required. 3 credit hours.

CDEC 1317 CHILD DEVELOPMENT ASSOCIATE TRAINING I

Based on the requirements for the Child Development Associate National Credential (CDA). Three of the 13 functional areas of study included: family, program management, and professionalism. Topics on CDA overview, general observation skills, and child growth and development overview. 3 credit hours.

CDEC 1318 NUTRITION, HEALTH, AND SAFETY

A study of nutrition, health, safety, and related activities, including skill development in management of issues, guidelines, and practices in nutrition, as well as community health, hygiene, safety, and legal implications. Integration of these principles applied to a variety of settings. Lab required. 3 credit hours.

CDEC 1319 CHILD GUIDANCE

An exploration of common behavior problems of young children in an early childhood setting. Emphasis on positive guidance techniques for effective behavior management. Practical application through direct participation in an early childhood setting. Lab required. 3 credit hours.

CDEC 1356 EMERGENT LITERACY FOR EARLY CHILDHOOD

An exploration of principles, methods, and materials for teaching young children language and literacy through a play-based, integrated curriculum. Lab required. 3 credit hours.

CDEC 1357 MATH AND SCIENCE FOR EARLY CHILDHOOD

An exploration of principles, methods, and materials for teaching young children math and science concepts through discovery and play. Lab required. 3 credit hours.

CDEC 1358 CREATIVE ARTS FOR EARLY CHILDHOOD

An exploration of principles, methods, and materials for teaching young children music, movement, visual arts, and dramatic play through process-oriented experiences to support divergent thinking. Lab required. 3 credit hours.

CDEC 1359 CHILDREN WITH SPECIAL NEEDS

A survey of information regarding children with special needs including possible causes and characteristics of exceptionalities, educational intervention, available resources, referral processes, the advocacy role, and legislative issues. Lab required. 3 credit hours.

CDEC 1370 PREVENTION OF CHILD ABUSE

Methods used by child care workers in the identification of physical, emotional, and sexual abuse of children. Includes methods of referral to public and private agencies that deal with investigation and treatment. Lab required. 3 credit hours.

CDEC 1454 CHILD GROWTH AND DEVELOPMENT

A study of the principles of normal child growth and development from conception to adolescence. Focus on physical, cognitive, social, and emotional domains of development. Lab required. 4 credit hours.

CDEC 2166 PRACTICUM - CHILD DEVELOPMENT AND EARLY CHILDHOOD - PROVIDER/ASSISTANT (CAPSTONE)

Practical general training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be for pay or no pay. This course may be repeated if topics and learning outcomes vary. 1 credit hour.

CDEC 2284 COOPERATIVE EDUCATION IN CHILD DEVELOPMENT

Career-related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical faculty, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. Prerequisite: Consent of faculty coordinator. 2 credit hours.

CDEC 2321 THE INFANT AND TODDLER

A study of appropriate infant and toddler (birth to 3 years) programs, including an overview of development, quality caregiving routines, appropriate environments, materials and activities, and teaching/guidance techniques. Lab required. 3 credit hours.

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. 3 credit hours.

CDEC 2324 CHILD DEVELOPMENT ASSOCIATE TRAINING III

A continuation of the study of the requirements for the Child Development Associate National Credential (CDA). The four functional areas of study are creative, cognitive, physical, and communication. 3 credit hours.

CDEC 2326 ADMINISTRATION OF PROGRAMS FOR CHILDREN I

A practical application of management procedures for early care and education programs, including a study of operating, supervising, and evaluating programs. Topics on philosophy, types of programs, policies, fiscal management, regulations, staffing, evaluation, and communication. Lab required. 3 credit hours.

CDEC 2328 ADMINISTRATION OF PROGRAMS FOR CHILDREN II

An in-depth study of the skills and techniques in managing early care and education programs, including legal and ethical issues, personnel management, team building, leadership, conflict resolution, stress management advocacy, professionalism, fiscal analysis and planning parent education/partnerships, and technical applications in programs. Lab required. 3 credit hours.

CDEC 2341 THE SCHOOL-AGE CHILD

A study of appropriate age (5 to 13 years) programs, including an overview of development, appropriate environments, materials and activities, and teaching/guidance techniques. Lab required. 3 credit hours.

CDEC 2385 COOPERATIVE EDUCATION IN CHILD DEVELOPMENT

Career-related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the CWE Office. Prerequisite: Consent of faculty coordinator. Cooperative Work Experience 3 credit hours.

CDEC 2386 INTERNSHIP-CHILD DEVELOPMENT AND EARLY CHILDHOOD

An experience external the college for an advanced student in a specialized field involving a written agreement between the educational institution and a business or industry. Mentored and supervised by a workplace employee, the student achieves objectives that are developed and documented by the college and that are directly related to specific occupational outcomes. This may be a paid or unpaid experience. This course may be repeated if topics and learning outcomes vary. 3 credit hours.

CETT 1303 DC CIRCUITS

A study of the fundamentals of direct current including Ohm's law, Kirchoff's laws and circuit analysis techniques. Emphasis on circuit analysis of resistive networks and DC measurements. Lab required. 3 credit hours.

CETT 1305 AC CIRCUITS

A study of alternating current including series and parallel AC circuits, phasors, capacitive and inductive networks, transformers, and resonance. Lab required. 3 credit hours.

CETT 1325 DIGITAL FUNDAMENTALS

An entry-level course in digital electronics covering number systems, binary mathematics, digital codes, logic gates, Boolean algebra, Karnaugh maps, and combinational logic. Emphasis on circuit logic analysis and troubleshooting digital circuits. Lab required. 3 credit hours.

CETT 1329 SOLID STATE DEVICES

A study of diodes and bipolar semiconductor devices, including analysis of static and dynamic characteristics, bias techniques, and thermal considerations of solid state devices. Lab required. 3 credit hours.

CETT 1341 SOLID STATE CIRCUITS

Formerly ELAT 2340

A study of various semiconductor devices incorporated in circuits and their applications. Emphasis on circuit construction, measurements, and analysis. Lab required. 3 credit hours.

CETT 1403 DC CIRCUITS

Formerly ELAT 1400 & ELET 1400

A study of the fundamentals of direct current including Ohm's law, Kirchoff's laws and circuit analysis techniques. Emphasis on circuit analysis of resistive networks and DC measurements. Lab required. 4 credit hours.

CETT 1405 AC CIRCUITS

Formerly ELAT 1401 & ELET 1401

A study of the fundamentals of alternating current including series and parallel AC circuits, phasors, capacitive and inductive networks, transformers, and resonance. Lab required. 4 credit hours.

CETT 1409 DC-AC CIRCUITS

Formerly ELET 1440

Fundamentals of DC circuits and AC circuits operation including Ohm's law, Kirchoff's laws, networks, transformers, resonance, phasors, capacitive and inductive and circuit analysis techniques. Lab required. 4 credit hours.

CETT 1421 ELECTRONIC FABRICATION

Formerly ELAT 1405

A study of electronic circuit fabrication techniques including printed circuit boards, wire wrapping, bread boarding, and various soldering techniques. Lab required. 4 credit hours.

CETT 1425 DIGITAL FUNDAMENTALS

Formerly ELET 1405

An entry-level course in digital electronics covering number systems, binary mathematics, digital codes, logic gates, Boolean algebra, Karnaugh maps, and combinational logic. Emphasis on circuit logic analysis and troubleshooting digital circuits. Lab required. 4 credit hours.

CETT 1429 SOLID STATE DEVICES

Formerly ELAT 1410

A study of diodes and bipolar semiconductor devices, including analysis of static and dynamic characteristics, bias techniques, and thermal considerations of solid state devices. Lab required. 4 credit hours.

CETT 1431 TECHNICAL PROGRAMMING

Formerly ELAT 2455

Introduction to a high level programming language such as BASIC, PASCAL, or "C." Topics include structured programming and problem solving as they apply to technical applications. Lab required. 4 credit hours.

CETT 1441 SOLID STATE CIRCUITS

A study of various semiconductor devices incorporated in circuits and their applications. Emphasis on circuit construction, measurements, and analysis. Lab required. 4 credit hours.

CETT 1445 MICROPROCESSOR

Formerly ELET 1410

An introductory course in microprocessor software and hardware, its architecture, timing sequence, operation, and programming, and discussion of appropriate software diagnostic language and tools. Lab required. Prerequisite: CETT 1425 or consent of instructor. 4 credit hours.

CETT 1457 LINEAR INTEGRATED CIRCUITS

Formerly ELET 1415 & ELAT 2425

A study of the characteristics, operations, stabilization, testing, and feedback techniques of linear integrated circuits. Application in computation, measurements, instrumentation, and active filtering. Lab required. Prerequisite: CETT 1405 or consent of instructor. 4 credit hours.

CETT 2333 DIGITAL COMPUTER CIRCUITS

Formerly ELAT 2335

A study of the three major component systems of a digital computer including arithmetic logic operations, RAM and ROM memory systems, and control systems. Lab required. 3 credit hours.

CETT 2439 AMPLIFIER ANALYSIS

Formerly ELAT 2445

Advanced study of electronic amplifier applications including op-amps, audio amps, video amps, and other high frequency amplifiers. Lab required. Prerequisite: CETT 1429 or consent of instructor. 4 credit hours.

CHEM 1170 BIOCHEMISTRY

For science majors. Explores catabolism and anabolism with excursion into areas of current biochemical investigations. Lab required. Prerequisites: BIOL 1406 and CHEM 1411 within the last 5 years. 1 credit hour.

CHEM 1405 INTRODUCTION TO CHEMISTRY I

For non-science majors. Survey of chemistry including scientific calculations, chemical equations, theory of atoms and bonding, states of matter, nuclear chemistry, elementary thermodynamics, and acid-base chemistry. Lab and recitation required. Prerequisite: high school algebra or equivalent within the last 5 years. 4 credit hours.

CHEM 1407 INTRODUCTION TO CHEMISTRY II

Focuses on organic chemistry and biochemistry. Discussions routinely include questions and/or applications from the fields of nutritional and consumer chemistry. Lab and recitation required. Prerequisite: CHEM 1405 within the last 5 years with a grade of "C" or better. 4 credit hours.

CHEM 1411 GENERAL CHEMISTRY I

For science majors, pre-medical, pre-dental, or engineering students. Includes stoichiometry, ideal gas behavior, atomic theory, periodic trends, VSEPR theory, thermochemistry, and bonding theory. Lab and recitation required. Prerequisites: MATH 1314 within the last 5 years with a grade of "C" or better, and either 1 year of high school chemistry or CHEM 1405 within the last 5 years with a grade of "C" or better. 4 credit hours.

CHEM 1412 GENERAL CHEMISTRY II

Addresses topics in chemical equilibria, acid-base theory, solubility, electrochemistry, nuclear chemistry, organic chemistry, biochemistry, and states of matter. Lab and recitation required. Prerequisite: CHEM 1411 within the last 5 years with a grade of "C" or better. 4 credit hours.

CHEM 1419 INTRODUCTION TO ORGANIC/BIOCHEMISTRY

Introduction to organic chemistry and biochemistry for technical applications. Provides general preparation for entry-level technical students in biotechnology or laboratory biology. Not designed for chemistry majors. Lab required. Prerequisite: CHEM 1405 or 1411. 4 credit hours.

CHEM 2401 ANALYTICAL CHEMISTRY

Lab intensive course focusing on the principles and problems associated with quantitative chemical analysis. Explores the techniques and precautions required to quantitatively measure a variety of chemical species utilizing volumetric, gravimetric, and spectroscopic methods. Introduces experimental design and the statistical aspects of data treatment. Lab required. Prerequisite: CHEM 1412 within the last 5 years with a grade of "C" or better. 4 credit hours.

CHEM 2423 ORGANIC CHEMISTRY I

Study of carbon chemistry that considers covalent bonding, nomenclature, stereochemistry, structure and reactivity, reaction mechanisms, functional groups, and introductory synthesis. Lab experiments develop organic techniques. Lab and recitation required. Prerequisite: CHEM 1412 within the last five years with a grade of "C" or better. 4 credit hours.

CHEM 2425 ORGANIC CHEMISTRY II

Includes methods of structural analysis, advanced synthesis and reactions, biochemistry, and organometallic topics. Lab experiments emphasize techniques in synthesis, purification, and analysis. Lab and recitation required. Prerequisite: CHEM 2423 within the last 5 years with a grade of "C" or better. 4 credit hours.

CHEM 2389 ACADEMIC CO-OP CHEMISTRY

Integrates on-campus study with practical hands-on work experience in chemistry. In conjunction with class seminars, the student will set specific goals and objectives in the study of chemistry. Contact the Cooperative Work Experience Office. 3 credit hours.

CHIN 1411 BEGINNING CHINESE I

Introduction to the basic skills of speaking, reading, writing, and listening with attention to selected aspects of Chinese culture; designed for students with little or no previous language training. Instruction is enhanced by the use of tapes, slides, and video cassettes. 4 credit hours.

CHIN 1412 BEGINNING CHINESE II

Continuation of CHIN 1411. Prerequisite: CHIN 1411. 4 credit hours.

CHIN 2311 INTERMEDIATE CHINESE I

Review and application of skills in listening comprehension, speaking, reading, and writing. Emphasizes conversation, vocabulary acquisition, reading, composition, and culture. Prerequisite: CHIN 1412. 3 credit hours.

CHIN 2312 INTERMEDIATE CHINESE II

Continuation of CHIN 2311, emphasizing conversation and reading skills. Prerequisite: CHIN 2311. 3 credit hours.

CNWT 1351 INTRODUCTION TO COMPUTER NETWORKS

Networking fundamentals, hardware, network operating systems, and network architecture. Hands-on lab covering network administration, folder and file management, print management, and security, using Microsoft Windows NT and Novell NetWare network operating systems. Course helps student prepare for the Microsoft Certified Professional Exam: Exam 70-018, Networking Essentials. Lab required. Prerequisite: CSCI 1305 or consent of instructor. 3 credit hours.

CNWT 1352 INTRODUCTION TO TELECOMMUNICATIONS

Development of concepts and vocabulary regarding the movement of voice, data, image, and facsimile from one point to another via analog and digital networks. Attention will be given to the telephone network, data networks, and the Internet including modems, multiplexes, concentrators, amplifiers, repeaters, wire, fiber, radio signal, cellular, satellite, microwave, and wireless transports. Prerequisite: CSCI 1305 or consent of instructor. 3 credit hours.

CNWT 1354 MANAGING LOCAL AREA NETWORKS

Management issues associated with evaluating, installing, and administering Local Area Networks (LANs). LAN interconnection technologies, Wide Area Networks (WANs), and other components of the enterprise-wide network will be addressed as well as client/server computing and client/server networks with regard to middleware, downsizing, and internetworking. Lab required. Prerequisite: CNWT 1351 or consent of instructor. 3 credit hours.

CNWT 1453 WIDE AREA DATA NETWORKING ESSENTIALS

Upon completing course, students will be able to discuss, develop, configure, and support communications plans for internetworking options comprised of Frame Relay, SMDS, ATM, commercial Internet services, public-network FDDI, and private line solutions. Students will gain knowledge necessary to objectively compare and contrast technology options to provide a “best match” solution for networking issues. Emphasis on the OSI model, repeaters, bridges, routers, and gateways. Lab required. Prerequisites: CNWT 1351 and 1352, or consent of instructor. 4 credit hours.

CNWT 2190 SELECTED TOPICS I

An in-depth study of selected topics in computer network technology. Prerequisites and topics covered will be annotated in each semester’s Schedule of Classes. May be repeated for credit as topics change. Lab may be required. 1 credit hour.

CNWT 2210 WINDOWS 98 IMPLEMENTATION AND SUPPORT

Implementing and supporting the Windows 98 operating system to function as a workstation in a peer-to-peer environment and as a client in a client/server environment. Prepares student for MCP Exam 70-098. Lab required. Prerequisite: CNWT 1351 or consent of instructor. 2 credit hours.

CNWT 2215 WINDOWS NT WORKSTATION INSTALLATION, IMPLEMENTATION, AND SUPPORT

Implementing and supporting the Windows NT Workstation operating system to function as a workstation in a peer-to-peer environment and as a client in a client/server local network environment. Prepares student for MCP Exam 70-073. Lab required. Prerequisite: CNWT 1351 or consent of instructor. 2 credit hours.

CNWT 2223 WINDOWS NT SQL SERVER SYSTEM ADMINISTRATION

Knowledge and skills required to install, configure, administer, and troubleshoot Microsoft SQL Server. Prepares student for MCP Exam 70-026. Lab required. Prerequisite: CNWT 2280 2 credit hours.

CNWT 2224 WINDOWS NT SMS SERVER IMPLEMENTATION AND SUPPORT

Knowledge and skills required to install, configure, administer, and troubleshoot Microsoft Systems Management Server. Implement multiple SMS sites, collect hardware and software inventory, delivery software to client computers, and manage shared applications. Using remote control functions, diagnose and solve common problems. Prepares student for MCP Exam 70-014. Lab required. Prerequisites: CNWT 2223 and 2280. 2 credit hours.

CNWT 2225 WINDOWS NT EXCHANGE SERVER IMPLEMENTATION AND SUPPORT

Core technologies of Microsoft Exchange Server. Implementing and supporting Microsoft Exchange in a single-site environment. Prepares student for MCP Exam 70-075. Lab required. Prerequisite: CNWT 2210 or 2215. 2 credit hours.

CNWT 2273 WINDOWS NT IIS IMPLEMENTATION AND SUPPORT

Implementing and supporting Microsoft Internet Information Server. Prepares student for MCP Exam 70-077. Lab required. Prerequisites: CNWT 2210 and 2280. 2 credit hours.

CNWT 2280 WINDOWS NT SERVER INSTALLATION, IMPLEMENTATION, AND SUPPORT

Myriad of components in high-end Windows NT environment; network operating system setup; management and troubleshooting designed to appeal to Windows NT designers, consultants, installers, Windows NT supervisors, and MIS staff members. Prepares student for MCP Exam 70-067. Lab required. Prerequisite: CNWT 1351 or consent of instructor. 2 credit hours.

CNWT 2281 INTERNETWORKING TCP/IP

Provides knowledge and skills to implement and support Microsoft's implementation of the TCP/IP protocol on the MS Windows NT Server. Prepares student for MCP Exam 70-059. Lab required. Prerequisite: CNWT 2280. 2 credit hours.

CNWT 2431 NETWORK HARDWARE

Emphasis on building LAN and WAN topologies with fiber optic and twisted pair cable. Configure the topologies: ring, bus, star, and token by constructing them in lab setting, also distinguishing between software and hardware conflicts in these topologies. New technology information will be gleaned from current publications in this area. Lab required. Prerequisites: CNWT 1351 and CPMT 1411. 4 credit hours.

CNWT 2432 COMPUTER COMMUNICATIONS HARDWARE

Emphasis on analog and digital wireless multimedia communications used in network topologies. Incorporates LAN and WAN configuration to better understand how they can be used in cellular and satellite networks. New technology information will be gleaned from current publications in these areas. Lab required. Prerequisites: CNWT 1351 and 2431. 4 credit hours.

CNWT 2462 MANAGING MICROSOFT WINDOWS NT

Provides skills necessary for supervisors and managers of Microsoft NT networks. Emphasis on building skill sets in management techniques to appropriately address people, security, applications, and overall network infrastructure. Focuses on the management of server applications and includes integration of Microsoft and Novell networks. Lab required. Prerequisite: CNWT 2461. 4 credit hours.

CNWT 2471 NOVELL NETWORK INSTALLATION AND TROUBLESHOOTING

Includes data communications fundamentals, the Open Systems Interconnection (OSI) Reference model, and computer networking concepts; network architecture and configuration are discussed, including Local Area Networks (LANs) and Wide Area Networks (WANs). Introduces network performance evaluation and interconnectivity issues involving bridges, routers, and gateways, and covers the configuration and operation of the Novell operating system and its administration. Lab includes hands-on experience in planning, configuring, and installing Novell NetWare operating system using a major cabling topology. Lab required. Prerequisite: CNWT 1351 or consent of instructor. 4 credit hours.

CNWT 2490 SELECTED TOPICS II

An in-depth study of selected topics in computer network technology. Prerequisites and topics covered will be annotated in each semester's Schedule of Classes. May be repeated for credit as topics change. Lab may be required. 2 credit hours.

CNWT 7300 COOPERATIVE EDUCATION I

Career-related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with career-related work experience. Credit is earned for completion of specific learning objectives and seminar participation. Contact the Cooperative Work Experience Office. 3 credit hours.

CNWT 7305 COOPERATIVE EDUCATION II

Continuation of supervised on-the-job experience and career-related activities. Requires new learning objectives and seminar participation. Contact the Cooperative Work Experience Office. Prerequisite: CNWT 7300. 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. 3 credit hours.

COMM 2331 RADIO AND TV ANNOUNCING

Principles of, and practice in, radio and TV announcing. Includes the study of voice (diction, pronunciation, and delivery) as it relates to mediated contexts and experience in news announcing, interviewing, and acting in commercials. 3 credit hours.

COMM 2332 RADIO/TELEVISION NEWS

The preparation and analysis of news styles for the electronic media. 3 credit hours.

COMM 2389 ACADEMIC CO-OP COMMUNICATION

For Radio, TV, and Film students only. Integrates on-campus study with practical hands-on work experience in communication. In conjunction with class seminars, the student will set specific goals and objectives in the study of communication. Contact the Cooperative Work Experience Office. Prerequisite: Consent of instructor. 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 STRUCTURED PROGRAMMING USING C++

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 discipline coordinator. 3 credit hours.

COSC 1415 JAVA FOR NON-PROGRAMMERS

Formerly CSCI 2363

Introduction to programming for the World Wide Web (WWW). Design Java applets to be transported to the Internet and executed in WWW browsers. Lab required. Prerequisites: COSC 1300 and CSCI 1325, or consent of instructor. 4 credit hours.

COSC 1420 INTRODUCTION TO PROGRAMMING WITH C++

An introduction to structured programming using the C++ language. This class is designed for students with no programming experience or with less than one year of structured programming experience. Prerequisite: COSC 1300; Corequisite: MATH 1314. Lab required. 4 credit hours.

COSC 2315 DATA STRUCTURES WITH OBJECT-ORIENTED 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 2318 DATA STRUCTURES USING PASCAL

Study of structured programming, design, file processing, recursion, linked lists, stacks, queues, and binary search trees. Emphasis on creating and modifying larger programs. Lab required. Prerequisite: COSC 1318. 3 credit hours.

COSC 2320 OBJECT-ORIENTED PROGRAMMING FOR PROGRAMMERS WITH 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 discipline coordinator. 3 credit hours.

COSC 2325 ASSEMBLY LANGUAGE

Study of the architecture of the computer through the use of assembly language programming. Includes study of registers, instruction sets, addressing techniques, machine execution traces, table searching/sorting, file I/O, program linking, and macros. Lab required. Prerequisite: COSC 1320 or 1420. 3 credit hours.

COSC 2330 JAVA FOR C++ PROGRAMMERS

Formerly COSC 2373

Syntax and Semantics of the Java language with object orientation. Primary emphasis is on development of completed object-oriented applications both with and without a graphical interface. Prerequisite: COSC 2320 or 2420. 3 credit hours.

COSC 2334 ADVANCED ASSEMBLY LANGUAGE PROGRAMMING

Formerly COSC 2375

Program design and practice with assembly languages, macro definitions, conditioned assembly, advanced I/O, and floating point operations. Lab required. Prerequisite: COSC 2325. 3 credit hours.

COSC 2372 OBJECT-ORIENTED DESIGN

Study of the principles underlying various object-oriented programming design methodologies. Lab required. Prerequisite: COSC 2320 or 2420. 3 credit hours.

COSC 2374 WINDOWS PROGRAMMING WITH VISUAL C++

Programming in a Windows integrated development environment using Visual C++. Lab required. Prerequisite: COSC 2320 or 2420. 3 credit hours.

COSC 2390 SPECIAL TOPICS IN COMPUTER SCIENCE

Selected topics in computer science and software development to address current issues. Prerequisites and topics covered will be annotated in each semester's Schedule of Classes. May be repeated for credit as topics change. 3 credit hours.

COSC 2420 INTRODUCTION TO OBJECT-ORIENTED PROGRAMMING WITH C++

For beginning C++ programmers (those with less than one year of experience). Topics will include discussion of classes, inheritance, templates, and polymorphism. Prerequisite: COSC 1320 or 1420. Lab required. 4 credit hours.

COSC 7300 COOPERATIVE EDUCATION I

Career-related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with career-related work experience. Credit is earned for completion of specific learning objectives and seminar participation. Contact the Cooperative Work Experience Office. 3 credit hours.

CPMT 1411 INTRODUCTION TO COMPUTER MAINTENANCE

Formerly ELET 2430

A study of the information for the assembly of a microcomputer system. Emphasis on the evolution of microprocessors and microprocessor bus structures. Lab required. 4 credit hours.

CPMT 1443 MICROCOMPUTER ARCHITECTURE

Formerly ELAT 2450

An intermediate level course in computer characteristics and subsystem operations, timing, control circuits, and internal input/output controls. Lab required. Prerequisite: CETT 1325 or consent of instructor. 4 credit hours.

CPMT 1445 COMPUTER SYSTEMS MAINTENANCE

Formerly ELAT 2460

Examination of the functions of the components within a computer system. Development of skills in the use of test equipment and maintenance aids. Lab required. 4 credit hours.

CPMT 2337 MICROCOMPUTER INTERFACING

Formerly ELET 2325

An interfacing course exploring the concepts and terminology involved in interfacing the internal architecture of the microcomputer with commonly used external devices. Lab required. Prerequisite: CETT 1445 or consent of instructor. 3 credit hours.

CRIJ 1301 INTRODUCTION TO CRIMINAL JUSTICE

A multidisciplinary overview and analysis of the major agencies, personnel, and decision-making points which comprise the criminal justice system. Includes problems and issues confronting legislatures, police, courts, corrections, and the community as they respond to crime in a free society. Legal precedents guiding the decisions of criminal justice agents are also discussed. 3 credit hours.

CRIJ 1306 THE COURTS AND CRIMINAL PROCEDURE

Study of procedural regulations that guide the processing of criminal cases through the criminal justice system, with emphasis on the Texas Code of Criminal Procedure and rules of evidence. Includes a discussion of the criminal defendant's due process rights from arrest through confinement as well as issues related to the administration of capital punishment. 3 credit hours.

CRIJ 1307 CRIME IN AMERICA

Survey of the nature, location, and impact of crime in America. Includes historical foundations of crime, theoretical explanations of criminality and delinquency, the recording and measurement of crime, descriptions of criminal careers, and an analysis of public policies concerning crime control. 3 credit hours.

CRIJ 1310 FUNDAMENTALS OF CRIMINAL LAW

Nature of criminal law; historical and philosophical development of law in society; major definitions and concepts; classifications of crime; elements of crimes and penalties using the Texas statutes as illustrations; criminal responsibility. 3 credit hours.

CRIJ 1313 JUVENILE JUSTICE SYSTEM

The juvenile justice system; history, philosophy, and evaluation of the juvenile court; juvenile court practices and procedures; neglect, dependency and delinquency, jurisdiction of the court, the role of the police officer, the correctional officer, and the social welfare worker in the juvenile justice system. 3 credit hours.

CRIJ 2301 COMMUNITY RESOURCES IN CORRECTIONS

Introduction to the role of the community in corrections; community programs for adults and juveniles; administration of community programs; legal issues; future trends in community treatment. 3 credit hours.

CRIJ 2313 CORRECTIONAL SYSTEMS AND PRACTICES

Corrections in the criminal justice system; correctional role; institutional operations; alternatives to institutionalization; treatment and rehabilitation; current and future issues. 3 credit hours.

CRIJ 2314 CRIMINAL INVESTIGATION

Investigative theory; collection and preservation of evidence; sources of information; interview and interrogation; uses of forensic sciences; case and trial preparation. 3 credit hours.

CRIJ 2323 LEGAL ASPECTS OF LAW ENFORCEMENT

Police authority; responsibilities; constitutional restraints; laws of arrest, search and seizure; police liability. 3 credit hours.

CRIJ 2328 POLICE SYSTEMS AND PRACTICES

The police profession; organization of law enforcement systems; the police role; police discretion; ethics; police-community interaction; current and future issues. 3 credit hours.

CRIJ 2389 ACADEMIC CO-OP CRIMINAL JUSTICE

An instructional program designed to integrate on-campus study with practical hands-on work experience in criminal justice. In conjunction with class seminars, the individual student will set specific goals and objectives in the study of music. Contact the Cooperative Work Experience Office. 3 credit hours.

CSCI 1305 MICROCOMPUTER CONCEPTS

Overview of computer hardware, software, and operating system concepts. Covers fundamentals through advanced concepts of the current Windows operating system and Windows applications. Includes disk and file management, object linking and embedding, system setup and maintenance, networking, Internet connection, communications, and operating system utilities. Hands-on instruction and lab projects help students master operating system.

CSCI 1306 UNIX OPERATING SYSTEMS I

Formerly COSC 2384

Study of UNIX operating systems concepts with hands-on laboratory exercises. Topics include UNIX utilities, file structure, shell scriptive in the Bourne, C, and Korn shells, and at least one editor. Prerequisite: In-depth knowledge of one programming language. 3 credit hours.

CSCI 1310 INTRODUCTION TO GRAPHICS

Study of basic concepts of computer graphics. Design and use the graphic software package, Corel Draw for Windows. 3 credit hours.

CSCI 1315 MULTIMEDIA PRESENTATIONS

Students create business multimedia presentations to be presented to a live audience or over the World Wide Web using Microsoft PowerPoint. Prerequisites: COSC 1300 and CSCI 1325, or consent of instructor. 3 credit hours.

CSCI 1325 INTRODUCTION TO MULTIMEDIA

Introduction to multimedia and its use in business. Students will be required to produce multimedia presentations using Microsoft PowerPoint. Prerequisite: COSC 1300, CSCI 1305, or consent of instructor. 3 credit hours.

CSCI 1330 INSTRUCTIONAL DESIGN FOR BUSINESS AND EDUCATION

Basic principles of instruction, educational psychology, instructional strategies, and student learning styles. Lab required. 3 credit hours.

CSCI 1370 INTRODUCTION TO VISUAL BASIC PROGRAMMING

Formerly CSCI 1370

Overview of Visual Basic Programming Language. Use of Visual Basic controls, methods and properties. Includes object design, event-driven design, program flow, writing effective code, branching loops, data arrays, sequential files and direct access files. Prerequisite: CSCI 1305. 3 credit hours.

CSCI 1380 COOPERATIVE EDUCATION-COMPUTER AND INFORMATION SCIENCES, GENERAL (CAPSTONE)

Formerly CSCI 7300

Career-related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with career-related work experience. Credit is earned for completion of specific learning objectives and seminar participation. Contact the Cooperative Work Experience Office. 3 credit hours.

CSCI 2305 INTEGRATED SPREADSHEET APPLICATIONS

Study of electronic spreadsheet with graphic and database features using Microsoft Excel for Windows. Prerequisite: COSC 1300, CSCI 1305, or consent of instructor. 3 credit hours.

CSCI 2310 DATABASE APPLICATIONS

Concepts and techniques for solving business problems using Microsoft Access. Emphasis on database design, custom reports, file management, and application creation. Prerequisite: COSC 1300, CSCI 1305, or consent of instructor. 3 credit hours.

CSCI 2315 DESKTOP PUBLISHING

Using Ventura Publishing, students will create several printed communications projects. Prerequisites: CSCI 1305 and OFAD 1331. 3 credit hours.

CSCI 2320 MICROSOFT OFFICE

Concepts and techniques using Microsoft Office 97 Professional®. Emphasis on Word, PowerPoint, and object linking and embedding. Prerequisite: COSC 1300.

CSCI 2325 INTERMEDIATE MULTIMEDIA APPLICATIONS

Using Authorware for Windows, students will create interactive multimedia training programs for business and education. Prerequisites: CSCI 1325 and 1330, or consent of instructor. 3 credit hours.

CSCI 2340 PROJECT DEVELOPMENT AND DELIVERY

Introduction to project development; prepares the student to plan, budget, and manage a multimedia/computer-based instruction project. Also focuses on delivery of information to meet the needs of the audience in an effective manner. Lab required. 3 credit hours.

CSCI 2349 ADVANCED VISUAL BASIC PROGRAMMING

Formerly COSC 2370

Design and create innovative and useful Windows programs for business applications using Microsoft Visual Basic for Windows programs for business applications. Prior programming experiences and Windows required. Prerequisite: COSC 1370. Lab required. 3 credit hours.

CSCI 2350 COMPUTER OPERATING SYSTEMS

Introduction to operating systems theory and concepts, including computer hardware, software, and their interaction, single-user vs. multiple-user systems, MS-DOS, UNIX, and JCL. Lab required. Prerequisite: COSC 1300, CSCI 1305, or one programming language. 3 credit hours.

CSCI 2353 INTRODUCTION TO INTERNET POWER TOOLS

Study of computer mediated communication as a source of retrieving and processing information. Primary focus on using existing methodologies to access, manage, obtain, and utilize information from a variety of sources, employing the Internet as the transmission mode. Prerequisite: COSC 1300, CSCI 1305, or consent of instructor. 3 credit hours.

CSCI 2359 VISUAL BASIC FOR APPLICATIONS

This course is an extension of Visual Basic. Visual Basic controls, objects, methods, and properties will be used from within Microsoft Office and other VBA compliant applications to develop integrated business applications. Visual Basic for Applications is used by professional developers to customize applications and to write extensions and add-ons for their customers. Prerequisites: CSCI 1370 and 2310. 3 credit hours.

CSCI 2360 HYPERTEXT MARKUP LANGUAGE (HTML)

Web page design and production using HTML, the publishing language of the World Wide Web. Text editors are used to create HTML documents. Includes HTML programming for text, multimedia, hyperlinks, tables, images, style sheets, and frames. Prerequisites: COSC 1300 and CSCI 1325, or consent of instructor. 3 credit hours.

CSCI 2365 ADVANCED MULTIMEDIA APPLICATIONS

Students will further advance their skills using multimedia for interactive training and to meet industry and educators' demands for Windows programs that enable users to store, access, and retrieve information from numerous external databases. Prerequisite: CSCI 2325. 3 credit hours.

CSCI 2370 SCRIPTING LANGUAGES

Introduction to client-side scripting languages for web pages to bring automation and interactivity. Language(s) may include JavaScript and/or VBScript. Prerequisites: COSC 1300 and CSCI 1325, or consent of instructor. 3 credit hours.

CSCI 2371 WEB AUTHORIZING

Formerly COSC 2371

Using current software packages, students will create multimedia pages for publication on the World Wide Web. Prerequisite: CSCI 1325. Lab required. 3 credit hours.

CSCI 2375 ADVANCED SCRIPTING LANGUAGES

Use of CGI programming scripts to interact with databases on the web in a server (UNIX or Windows NT) environment. Scripting language(s) used may include PERL or other server-side scripting language. Prerequisites: COSC 1300 and CSCI 1325, or consent of instructor. 3 credit hours.

CSCI 2381 COOPERATIVE EDUCATION-COMPUTER AND INFORMATION SCIENCES, GENERAL (CAPSTONE)

Formerly CSCI 7305

Continuation of supervised on-the-job experience and career-related activities. Requires new learning objectives and seminar participation. Contact the Cooperative Work Experience Office. Prerequisite: CSCI 1380. 3 credit hours.

CSCI 2390 SPECIAL TOPICS IN COMPUTER INFORMATION SYSTEMS I

Current developments in the rapidly changing field of computer information systems. Topics covered will be annotated in each semester's Schedule of Classes. May be repeated for credit as topics change. Prerequisite: Consent of instructor. 3 credit hours.

CSCI 2395 SPECIAL TOPICS IN COMPUTER INFORMATION SYSTEMS II

Current developments in the rapidly changing field of computer information systems. Prerequisites and topics covered will be annotated in each semester's Schedule of Classes. May be repeated for credit as topics change. Lab required. 3 credit hours.

CISIR 1344 GENERAL COMMUNICATION CIRCUITS I

The basic theory of operation and troubleshooting of communication circuits used in radio communication electronics systems. Lab required. 3 credit hours.

CISIR 1444 GENERAL COMMUNICATION CIRCUITS I

Formerly ELAT 2420

The basic theory of operation and troubleshooting of communication circuits used in radio communication electronics systems. Lab required. 4 credit hours.

D

CULN 1214 A LA CARTE COOKING

A course in a la carte or “cooking to order” concepts. Topics include menu and recipe interpretation and conversion, organization of workstation, employment of appropriate cooking methods, plating and saucing principles. 2 credit hours.

CULN 1241 AMERICAN REGIONAL CUISINE

A study of the development of regional cuisine’s in the United States with emphasis on the similarities in production and service systems. Application of skills to develop, organize, and build a portfolio of recipe strategies and production systems. 2 credit hours.

CULN 1245 INTERNATIONAL CUISINE

The study of classical cooking skills associated with the preparation and service of international and ethnic cuisines. Topics include similarities between food production systems used in the United States and other regions of the world. 2 credit hours.

CULN 1301 BASIC FOOD PREPARATION

A study of the fundamental principles of food preparation and cookery to include the Brigade Systems, cooking techniques, material handling, heat transfer, sanitation, nutrition, and professionalism. 3 credit hours.

CULN 1380 COOPERATIVE EDUCATION - CULINARY ARTS/CHEF TRAINING

Practical general training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student’s general and technical course of study. 3 credit hours.

CULN 2301 INTERMEDIATE FOOD PREPARATION

Topics on menu items such as soups, sauces, and protein foods. Also includes concentration on the identification of a variety of sandwiches, salads, fruits, and vegetables. 3 credit hours.

CULN 2331 ADVANCED FOOD PREPARATION I

Reinforces the course material of CULN 2301. Topics include the concept of pre-cooked food items and the preparation of canapés, hors d’oeuvres, and breakfast items. 3 credit hours.

CULN 2581 COOPERATIVE EDUCATION - CULINARY ARTS/CHEF TRAINING (CAPSTONE)

Career related activities encountered in the student’s area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. Contact the Cooperative Work Experience Office. 5 credit hours.

DANC 1110 BEGINNING TAP

Performance of basic rhythms and techniques fundamental to beginning tap dance. Focus on body placement, terminology, and tap combinations. 1 credit hour.

DANC 1111 INTERMEDIATE TAP

Further study of tap technique with focus on increased vocabulary and more complex rhythms and combinations. Prerequisite: DANC 1110 or consent of instructor. 1 credit hour.

DANC 1122 FOLK DANCE

Analysis of cultural backgrounds, costumes, and dance techniques leads to participation in a variety of folk dances. 1 credit hour.

DANC 1131 POPULAR SOCIAL DANCE

Practice in contemporary social dances including pop/rock and country western forms. 1 credit hour.

DANC 1141 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 INTERMEDIATE BALLET

Further study of ballet technique with focus on more complex movement combinations and performance qualities. Prerequisite: DANC 1141 or consent of instructor. 1 credit hour.

DANC 1145 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 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 BEGINNING JAZZ DANCE

Practice in basic jazz movements including isolations, elementary jumps, and turns. Includes participation in choreographed combinations and development of performing qualities. 1 credit hour.

DANC 1148 INTERMEDIATE JAZZ DANCE

Further development of jazz dance style. Attention to more complex movement combinations and composition development. Prerequisite: DANC 1147 or consent of instructor. 1 credit hour.

DANC 1151 DANCE PERFORMANCE

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: Consent of instructor. 1 credit hour.

DANC 1171 BEGINNING AEROBIC DANCE AND STEP TRAINING

Aerobic exercise and step training incorporating light weights. Includes interval training, which adds a new variation to aerobic endurance and flexibility. 1 credit hour.

DANC 1172 INTERMEDIATE AEROBIC DANCE AND STEP TRAINING

Further toning and trimming of the body are obtained through vigorous exercise routines, stretching, muscular strengthening, and other aerobic activities. Heart rate, weight, and nutritional status are monitored. Prerequisite: DANC 1171 or consent of instructor. 1 credit hour.

DANC 1173 ADVANCED AEROBIC DANCE AND STEP TRAINING

An accelerated aerobic conditioning program for advanced fitness students. Advanced exercise routines with weights are choreographed to music to maintain or increase cardiovascular endurance, flexibility, and strength. Prerequisite: DANC 1172 or consent of instructor. 1 credit hour.

DANC 1201 IMPROVISATION

Exploration of movement and visual design leading to choreographic studies. Focus on developing creative potential, personal movement style, and expressiveness. 2 credit hours.

DANC 2147 ADVANCED JAZZ DANCE

Further practice in jazz movements through advanced level jumps, turns, leaps, kicks, as well as the combination of these elements. Participation in choreographed routines utilizing complex rhythmic structures and movements in a variety of styles. Prerequisite: DANC 1148 or consent of instructor. 1 credit hour.

DANC 2303 DANCE APPRECIATION

Survey of primitive, classical, and contemporary dance and its interrelationship with cultural developments and other art forms. 3 credit hours.

DENH 1201 PRINCIPLES OF NUTRITION

This course will provide scientifically sound and relevant nutritional information, including behavior modifications. The preventive aspect of diet, nutrition, dental, and general health will be emphasized through the simultaneous application of this knowledge to clinical experiences. 2 credit hours.

DENH 1301 CLINICAL PRACTICE I

Introduction to the fundamentals of dental hygiene practice, specifically the basic didactic, psychomotor, and cognitive skills necessary to effectively provide care for patients in a dental hygiene treatment setting. 3 credit hours.

DENH 1311 ORAL RADIOLOGY

Assures the safe and effective use of ionizing radiation as a diagnostic tool and to minimize, as much as possible, any potential risk to patients and operators. Prerequisite: DENH 1413. 3 credit hours.

DENH 1402 CLINICAL PRACTICE II

Expands the basic skills gained in DENH 1301 to include interacting in an environment that encourages personal and professional growth. Prerequisites: DENH 1301 and 1413. 4 credit hours.

DENH 1413 ORAL ANATOMY, EMBRYOLOGY, AND HISTOLOGY

Provides an extensive background in oral anatomy, head and neck anatomy, embryology, and histology. Allows the student to utilize this knowledge and understanding to enhance every aspect of dental hygiene care. 4 credit hours.

DENH 2210 PHARMACOLOGY

Demonstrate knowledge of the basic pharmacology of drugs used by the dental profession and evaluate the significance of the patient's drug therapy to take necessary actions/precautions. 2 credit hours

DENH 2310 ORAL PATHOLOGY

Survey of general pathology pertinent to dental hygiene; presentation of oral abnormalities and diseases to assist in ability to recognize and accurately describe pathology; overview of disease process and oral manifestations. 3 credit hours.

DENH 2311 PERIODONTICS

Provides a basic knowledge of clinical periodontology, including concepts of clinical examination, treatment planning, and various treatment modalities. 3 credit hours.

DENH 2312 ORAL MEDICINE (CAPSTONE)

Examines oral manifestations of systemic disease; emphasis on assessment and evaluation of a complete medical/dental history and the interrelationship of oral health with patient well-being. 3 credit hours.

DENH 2315 DENTAL MATERIALS

Explores the materials/procedures utilized to deliver dental treatment to patients and increases skills in the following areas: manipulation of various dental materials, evaluation of restorations and prostheses, and designing of treatment plans to meet the need of individual patients. 3 credit hours

DENH 2403 COMMUNITY DENTAL HEALTH

This course is designed for the dental hygiene student to develop public health competencies to perform skills relating to the promotion of total health and prevention of disease in the community. The student will implement practical and effective dental public health programs during the geriatric and community service outreach portion of the course. 4 credit hours.

DENH 2501 CLINICAL PRACTICE III

Expands on the basic skills learned in the first and second year clinics. Learn advanced instrumentation techniques to provide total dental care to patients with a variety of special needs. Prerequisite: DENH 1402. 5 credit hours.

DENH 2502 CLINICAL PRACTICE IV

Introduction to professional ethics and commitments, legal terminology, professional organizations, state dental practice acts, practical considerations of methods, problems associated with the ethics and professional responsibilities of the dental health care provider, and employment considerations. Assists students in refining clinical skills. Prerequisite: DENH 2501. 5 credit hours.

DFTG 1305 TECHNICAL DRAFTING

Introduction to the principles of drafting to include terminology and fundamentals, including size and shape descriptions, projection methods, geometric construction, sections, auxiliary views, and reproduction processes. Lab required. Prerequisite: DFTG 1309. 3 credit hours

DFTG 1309 BASIC COMPUTER-AIDED DRAFTING

An introduction to basic computer-aided drafting. Emphasis is placed on drawing setup; creating and modifying geometry; storing and retrieving predefined shapes; placing, rotating, and scaling objects, adding text and dimensions, using layers, coordinating systems; as well as input and output devices. Lab required. 3 credit hours.

DFTG 1317 ARCHITECTURAL DRAFTING-RESIDENTIAL

Architectural drafting procedures, practices, and symbols, including preparation of detailed working drawings for residential structure with emphasis on light frame construction methods. Lab required. Prerequisite: DFTG 1309. 3 credit hours.

DFTG 1321 ARCHITECTURAL ILLUSTRATION

Architectural drawing and sketching, including freehand drawing, perspectives, delineation in various media and development of students' graphical expression, including an introduction to various reproduction methods. Lab required. Prerequisite: DFTG 1309. 3 credit hours.

DFTG 1333 MECHANICAL DRAFTING

An intermediate course covering detail drawings with proper dimensioning and tolerances, use of sectioning techniques, common fasteners, isometrics and oblique drawings, including bill of materials. Lab required. Prerequisite: DFTG 1309. 3 credit hours.

DFTG 1348 TOPOGRAPHICAL DRAFTING

A course in map drafting. Emphasis is given to plotting of surveyors' field notes, plotting elevations, contour drawings, plan and profiles, and laying out traverses. Lab required. Prerequisite: DFTG 1309. 3 credit hours.

DFTG 1352 INTERMEDIATE COMPUTER-AIDED DRAFTING

A continuation of practices and techniques used in basic computer-aided drafting emphasizing batched files, scripted files, customized program menus, and extracted attributes. Introduction to three-dimensional drafting. Lab required. Prerequisite: DFTG 1309. 3 credit hours.

DFTG 1354 ARCHITECTURAL DRAFTING-COMMERCIAL

Architectural drafting procedures, practices, and symbols including the preparation of detailed working drawings for a commercial building, with emphasis on commercial construction methods. Lab required. Prerequisite: DFTG 1309. 3 credit hours.

DFTG 1356 DESCRIPTIVE GEOMETRY

Examination of the graphical solution to problems involving points, lines, and planes in space. Lab required. Prerequisite: DFTG 1352. 3 credit hours.

DFTG 1358 ELECTRICAL/ELECTRONICS DRAFTING

A study of the principles of layout of electrical and electronic drawings, stressing modern representation used for block diagrams, schematic diagrams, logic diagrams, wiring/assembly drawings, printed circuit board layouts, motor control diagrams, power distribution diagrams, and electrical one-line diagrams. Lab required. Prerequisite: DFTG 1309. 3 credit hours.

DFTG 1380 COOPERATIVE EDUCATION-DRAFTING

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Lab required. Contact the Cooperative Work Experience Office. 3 credit hours.

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. 3 credit hours.

3D Studio Max

Actual design assignments are given in the areas of mechanical and graphics design. Students will complete simulated “real world” design projects in the field of their choice.

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.

DFTG 2304 PRINTED CIRCUIT BOARD DESIGN

An intermediate course including single-sided and double-sided printed circuit board design, emphasizing the drawings, standards, and processes required to lay out printed circuit board and manufacturing documentation. Lab required. Prerequisite: DFTG 1358. 3 credit hours.

DFTG 2310 STRUCTURAL DRAFTING

Discussion of detail drawings of structural shapes for fabrication with emphasis on framed and seated connectors and beam and column detailing. Designed to meet the standards of American Institute of Steel Construction, including units on concrete detailing conforming to American Concrete Institute standards. Lab required. Prerequisite: DFTG 1309. 3 credit hours.

DFTG 2312 TECHNICAL ILLUSTRATION

Topics include pictorial drawing including isometrics, obliques, perspectives, charts, and graphs; shading and transfer lettering; and use of different media. Lab required. Prerequisite: DFTG 1309 or 1352. 3 credit hours.

DFTG 2332 ADVANCED COMPUTER-AIDED DRAFTING

Exploration of the use of system customization for drawing production enhancement and the principles of data manipulation. Presentation of advanced applications, such as three-dimensional objects creation and linking graphic entities to external nongraphic data. Lab required. Prerequisite: DFTG 1352. 3 credit hours.

DFTG 2336 COMPUTER-AIDED DRAFTING PROGRAMMING

Emphasis on the productivity of CAD software through development of computer-aided drafting programs with emphasis on database design, access techniques, and structure methods with particular application in engineering graphics. Lab required. Prerequisite: DFTG 1352. 3 credit hours.

DFTG 2340 SOLID MODELING/DESIGN

A computer-aided modeling course. Development of three-dimensional drawings and models from engineering sketches and orthographic drawings and utilization of three-dimensional models in design work. Lab required. Prerequisite: DFTG 1352. 3 credit hours.

DFTG 2350 GEOMETRIC DIMENSIONING AND TOLERANCING

An introduction to geometric dimensioning and tolerancing, according to ANSI Y14.5 standards. Application of various geometric dimensions and tolerances to engineering drawings. Emphasis on cumulative effects on part function, gauging equipment, and inspection procedures. Lab required. Prerequisite: DFTG 1309. 3 credit hours.

DFTG 2352 MECHANICAL AND ELECTRICAL SYSTEMS

The properties of building materials (assemblies), specifications, codes, vendor references and uses of mechanical, plumbing, conveying, and electrical systems as related to architecture for residential and commercial construction. Lab required. Prerequisite: DFTG 1309. 3 credit hours.

DFTG 2356 ADVANCED PRINTED CIRCUIT BOARD DESIGN

An advanced course including the layout of surface mounted components and integrated circuit modular design, emphasizing the design and drawing layouts required to produce surface mounted components and integrated circuit modular printed circuit boards. Lab required. Prerequisite: DFTG 1352 or 2304. 3 credit hours.

DFTG 2381 COOPERATIVE EDUCATION-DRAFTING

Career-related activities encountered in the student’s area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Office. 3 credit hours.

DITA 1366 PRACTICUM-DIETITIAN ASSISTANT I

Practical general training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student’s general and technical course of study. This course may be repeated if topics and learning outcomes vary. Corequisite: DITA 1400. 3 credit hours.

DITA 1400 DIETARY MANAGER I

Formerly DTMG 1600

Preparation for supervisory roles in food service departments. Emphasis on normal and therapeutic nutrition and food service systems management. Major topics include dietary and meal planning guidelines, sources and functions of nutrients, diet therapy, nutritional assessment and care, food production management and purchasing, and regulatory agencies. Meets requirements established by the Dietary Managers Association. Prerequisite: GED or High School Diploma; Corequisite: DITA 1366. 4 credit hours.

NOTE: DITA 1400 and 1401 may be taken in either order.

DITA 1401 DIETARY MANAGER II

Formerly DTMG 1601

Continuation of DITA 1400. Emphasis on food service sanitation and safety, and administrative and personnel management. Major topics include regulatory agencies, computer applications, production management, budgeting, and cost control, personnel management, quality assurance, leadership skills, human relations, and communications. Meets requirements established by the Dietary Managers Association. Corequisite: DITA 2467. 4 credit hours.

NOTE: DITA 1400 and 1401 may be taken in either order.

DITA 2467 PRACTICUM-DIETITIAN ASSISTANT II

Practical general training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. May be repeated if topics and learning outcomes vary. Corequisite: DITA 1401. 4 credit hours.

DRAM 1171 THEATRE PRACTICUM-PERFORMANCE

Practicum in theatre with emphasis on performance techniques and procedures, including a major performance role in a college play production. May be combined with DRAM 1172 or repeated for maximum of 6 credit hours; flexible enrollment. Prerequisite: Consent of instructor. 1 credit hour.

DRAM 1172 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 1171 or repeated for a maximum total of 6 credit hours; flexible enrollment. Prerequisite: Consent of instructor. 1 credit hour.

DRAM 1310 INTRODUCTION TO THE THEATRE

Various aspects of theatre are surveyed. Emphasis on types of plays, directing, acting, and technical production. 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 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 1376 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 2331 STAGECRAFT II

Advanced study and application of visual aesthetics in scene design and stage painting. Lab required. Prerequisite: DRAM 1330. 3 credit hours.

DRAM 2336 VOICE AND DICTION

Intensive work in the improvement of voice through exercises to develop resonance, range, flexibility, intensity, and control of voice. 3 credit hours.

DRAM 2351 ACTING III

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

DRAM 2361 HISTORY OF THEATRE I

A historical investigation of the theatre and dramatic literature from ancient Greece through the English restoration. Lab required. 3 credit hours.

DRAM 2362 HISTORY OF THEATRE II

A historical investigation of the theatre and dramatic literature from the 18th century to the present. Lab required. 3 credit hours.

DRAM 2366 HISTORY OF FILM MAKING I

Investigates the history of motion pictures and its effect on our society as well as its contributions to our culture. Covers the period of 1890-1949. Emphasis on the cinema as an art form. Lab required. 3 credit hours.

DRAM 2367 HISTORY OF FILM MAKING II

Investigates the history of motion pictures and its effect on our society as well as its contributions to our culture. Covers the period of 1950-present. Emphasis on the cinema as an art form. Lab required. 3 credit hours.

DRAM 2371 SPECIAL TOPICS IN DRAMA

In-depth study of selected topics in drama. May be repeated for credit as topics change. 3 credit hours.

Acting for Film and Television

Intensive examination of skills and techniques necessary for successful performances in film and television. Practical application through in-class exercises and assigned projects. Lab required. Prerequisite: DRAM 1352.

Advanced Stage Combat

Continuation of DRAM 2351 with emphasis on complex stage combat techniques and choreography. Includes an instructional component, where the student will teach and/or direct staged fight scenes. Lab required. Prerequisite: Consent of instructor.

Costume Design

Continuation of DRAM 1376. Emphasis on costume design. Lab required. Prerequisite: DRAM 1376 or consent of instructor.

Improvisational Drama

General introduction to the techniques, practice, and performance of improvisational drama. Includes body control, voice, pantomime, characterization, and stage movement. Prerequisite: DRAM 1351 or 1352. Lab required.

Introduction to Directing

Examines the art of directing for the stage, including the composition, picturization, style, form, and structure of staging a play. Emphasis on directing as an art form. Students will direct scenes and one act plays. Lab required.

Introduction to Musical Theatre

Study of the forms and structures of the American musical theatre from its earliest forms through the present day. This uniquely American theatre form is traced from "The Black Crook" and early operetta through the turn-of-the-century poets of Tin Pan Alley to the current scene on Broadway. Representative musical scores and books are reviewed and performed in a lab setting. Lab required.

New York Theatre Field Studies

Introduces students first-hand to the performance, practice, and theory of the New York professional theatre. Includes lecture/discussions with working theatre professionals in New York (i.e., actors, directors, designers, theatre managers, and company managers); attendance at Broadway and Off-Broadway plays and musicals; observation/discussion of a Broadway play in rehearsal; and field trip visits to the professional training programs of the American Academy of Dramatic Arts, New York University, and the Juilliard School. Lab required. Students must also enroll in the New York Field Studies program. For information, contact Professor Brad Baker at 881-5679.

Stage Lighting

Mechanics and art of lighting for the stage, including the nature of light and optics, color, instrumentation, dimmers, and elementary lighting design. Practical application with CCCCD Theatre productions. Prerequisite: DRAM 1330. Lab required.

Stage Management

Examines the art of stage managing a play production, including rehearsal preparations, performance responsibilities, and production process documentation. Emphasis on the fundamental duty of a successful stage manager and coordinating and facilitating each of the collaborators in the theatrical process, to include performers, director, designers, and technicians. Lab required.

Survey of Contemporary American Dramatic Literature

Increases understanding and critical awareness of American dramatic literature from the late 1940s to the present. Covers techniques for analyzing play structure in a manner vital for the director, designer, playwright, and performer. Works of such authors as O'Neill, Miller, Williams, Albee, Shepard, Mamet, McNally, and others will be discussed. Through lectures, readings, written critiques, and oral presentations students will assess the development of dramatic literature as well as discern these scripts' correlation to social developments and/or contribution to structural innovations in playwriting. Lab required.

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 youth. Prerequisite: Consent of instructor required.

DRAM 2389 ACADEMIC CO-OP DRAMA

Integrates on-campus study with practical hands-on work experience in drama. In conjunction with class seminars, the student will set specific goals and objectives in the study of drama. Contact the Cooperative Work 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.

EECT 1191 SPECIAL TOPICS IN ELECTRICAL, ELECTRONIC, AND COMMUNICATIONS ENGINEERING TECHNOLOGY

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. Lab required. 1 credit hour.

EECT 1291 SPECIAL TOPICS IN ELECTRICAL, ELECTRONIC, AND COMMUNICATIONS ENGINEERING TECHNOLOGY

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. Lab required. 2 credit hours.

EECT 1300 TECHNICAL CUSTOMER SERVICE

General principles of customer service within a technical environment. Topics include internal/external customer relationships, time management, best practices, and verbal and non-verbal communications skills. Lab required. 3 credit hours.

EECT 1301 INTRODUCTION TO TELECOMMUNICATIONS

Formerly CNWT 1352

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: CSCI 1305 or consent of instructor. 3 credit hours.

EECT 1302 INTRODUCTION TO VIDEOCONFERENCING

An introduction to the videoconferencing protocol. Topics include imaging, display, and control equipment. Lab required. 3 credit hours.

EECT 1340 TELECOMMUNICATIONS TRANSMISSION MEDIA

Fundamentals of telecommunications media, including installation, maintenance, and troubleshooting. Topics address media characteristics and connectorization. Lab required. 3 credit hours.

EECT 1344 TELECOMMUNICATIONS BROADBAND SYSTEMS

Formerly TCOM 2180

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 topic varies. Lab required. 3 credit hours.

EECT 1346 TELECOMMUNICATIONS TRAFFIC ENGINEERING

A study of telecommunications traffic management including blocking avoidance schemes, data collection, and analysis and reporting techniques. Lab required. 3 credit hours.

EECT 1380 COOPERATIVE EDUCATION-ELECTRICAL, ELECTRONIC, AND COMMUNICATIONS ENGINEERING TECHNOLOGY

Formerly ELET 7300

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

EECT 1381 COOPERATIVE EDUCATION-ELECTRICAL, ELECTRONIC, AND COMMUNICATIONS ENGINEERING TECHNOLOGY

Formerly ELET 7305

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

EECT 1391 SPECIAL TOPICS IN ELECTRICAL, ELECTRONIC, AND COMMUNICATIONS ENGINEERING TECHNOLOGY

Formerly ELET 2380

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. Lab required. 3 credit hours.

EECT 1448 DIGITAL SIGNAL PROCESSING (DSP)

A study of the architecture and applications of digital signal processors (DSP) including mathematical signal processing techniques. Lab required. 4 credit hours.

EECT 1491 SPECIAL TOPICS IN ELECTRICAL, ELECTRONIC, AND COMMUNICATIONS ENGINEERING TECHNOLOGY

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. Lab required. 4 credit hours.

EECT 2330 TELECOMMUNICATIONS SWITCHING

Formerly TCOM 2180

The operation of telecommunications switching equipment and related software. Topics include installation, testing, maintenance, and troubleshooting. Lab required. 3 credit hours.

EECT 2332 TELECOMMUNICATIONS SIGNALING

Formerly TCOM 2180

The study of signaling schemes in telecommunications. Topics include circuits and systems necessary to implement signaling protocols, conversions, and formats. Lab required. 3 credit hours.

EECT 2337 WIRELESS TELEPHONY SYSTEMS

Principles of wireless/cellular telephony systems to include call processing, hand-off, site analysis, antenna radiation patterns, commonly used test/maintenance equipment, and access protocol. This course may be repeated if the topic varies. Lab required. 3 credit hours.

EECT 2340 TELECOMMUNICATIONS CENTRAL OFFICE EQUIPMENT

An examination of the theory, operation, and maintenance of central office telecommunications equipment. Lab required. 3 credit hours.

EECT 2342 TELECOMMUNICATIONS PRIVATE BRANCH EXCHANGE (PBX)

An examination of the theory, operation, and maintenance of PBX telecommunications equipment. Lab required. 3 credit hours.

EECT 2433 TELEPHONE SYSTEMS

Formerly ELET 2420

A study of installation and maintenance systems including telephone set, public switched networks, local exchanges, networks, two- and four-wire systems, tip and ringing requirements, and digital transmission techniques. Lab required. 4 credit hours.

EECT 2435 TELECOMMUNICATIONS (CAPSTONE)

Formerly TCOM 2422

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. Prerequisite: EECT 2439 or consent of instructor. 4 credit hours.

EECT 2439 COMMUNICATIONS CIRCUITS

Formerly TCOM 2420

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 1325. 4 credit hours.

EECT 2444 TELECOMMUNICATIONS TANDEM SWITCHING EQUIPMENT

An examination of the theory, operation, and maintenance of tandem telecommunications switching equipment. Lab required. 4 credit hours.

ELMT 1301 BASIC PROGRAMMABLE LOGIC CONTROLLERS

Formerly ELAT 2336

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.

ELMT 2437 ELECTRONIC TROUBLESHOOTING, SERVICE, AND REPAIR

Formerly ENGT 1472

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. Lab required. 4 credit hours.

EMTP 1100 ADVANCED CARDIAC LIFE SUPPORT

Provides the student with an opportunity to apply all critical care skills in a simulated ICU environment. Fee for course materials. Prior knowledge of ECGs is essential. Prerequisites: Knowledge of cardiac rhythms and consent of discipline coordinator. 1 credit hour.

EMTP 1300 EMERGENCY CARE ATTENDANT /FIRST RESPONDER

Provides the student with a working knowledge of first aid procedures, including the signs, symptoms, and treatment of various diseases and traumatic conditions. Successful completion will allow students to take the Emergency Care Attendant certification exam administered by the Texas Department of Health. Lab and clinical required. 3 credit hours.

EMTP 1500 EMERGENCY MEDICAL PROCEDURES

Classroom, clinical, and ambulance training, including anatomy and physiology, extrication and management of injured patients, cardiopulmonary resuscitation (CPR), bleeding control, and automated external defibrillation. Successful completion will allow students to take the EMT-Basic certification exam administered by the Texas Department of Health. Lab and clinical required. 5 credit hours.

EMTP 1800 PARAMEDIC PROCEDURES I

First of two courses designed to prepare the student for state certification as an Emergency Medical Technician-Paramedic. Includes general anatomy and physiology, pharmacology, fluids and electrolytes, and acid-base balance. Emphasis on disorders of the heart and advanced cardiac life support. Skills developed include ECG recognition, defibrillation and cardioversion, endotracheal intubation, drug administration, and intravenous fluid administration. Lab and extensive clinical required. Prerequisites: EMT-Basic certification and consent of discipline coordinator. 8 credit hours.

EMTP 2700 PARAMEDIC PROCEDURES II (CAPSTONE)

Second course of two designed to prepare the student for state certification as an Emergency Medical Technician-Paramedic. Includes medical emergencies, trauma management, pediatric emergencies, musculoskeletal and soft tissue injuries, obstetrical emergencies, and psychiatric emergencies. Skills developed include PASG (pneumatic anti-shock garment), pediatric resuscitation, intraosseous infusion, chest decompression via needle thorocotomy, and advanced airway management. Lab, extensive clinicals, and ambulance internship required. Prerequisites: EMTP 1800 and consent of discipline coordinator. 7 credit hours.

ENGL 0300 DEVELOPMENTAL WRITING I

A skills improvement course designed to help students improve basic writing skills necessary for ENGL 1301. Focus is on paragraph and short essay writing. Basic grammar, punctuation, and sentence construction studied as needed. Assessment required. Lab included. May not be used to satisfy the requirements of an associate degree. 3 credit hours.

ENGL 0305 DEVELOPMENTAL WRITING II

A skills improvement course designed to help students reach competencies necessary for ENGL 1301. Focus is on advanced paragraph development and medium length essay writing. Emphasis on critical reading skills, analytical writing, and vocabulary building. Punctuation and sentence construction studied as needed. Lab included. May not be used to satisfy the requirements of an associate degree. Prerequisite: ENGL 0300 or assessment. 3 credit hours.

ENGL 0310 DEVELOPMENTAL GRAMMAR I

A skills improvement course designed to help students strengthen the sentence for clearer, more emphatic, more concise expression of thought. Focus is on all facets of standard written English: correct grammar, punctuation, and usage. Teaches the student to recognize and correct common errors in sentence structure. May be taken concurrently with any English course. Lab included. May not be used to satisfy the requirements of an associate degree. 3 credit hours.

ENGL 0315 READING, WRITING, AND REASONING

A skills improvement course designed to help students reach competencies necessary for ENGL 1301. Focuses on reading and writing medium length expository essays, with special emphasis on writing about issues arising from class readings. Students will learn to write effective, logical essays, to develop reading comprehension strategies, and to analyze, synthesize, and make value judgments using critical thinking. Lab included. May not be used to satisfy the requirements of an associate degree. Prerequisite: ENGL 0300 or 0305. 3 credit hours.

ENGL 1301 COMPOSITION/RHETORIC I

Expository writing, development of paragraphs and the whole composition, study of model essays, extensive theme writing, individual conferences, and departmental final exam. Assessment prior to enrollment required. Lab required. 3 credit hours.

ENGL 1302 COMPOSITION/RHETORIC II

Continued development of writing skills and development of skills in argumentation; analysis and interpretation of various types of argumentation and identification of fallacies; extensive reading, outlining, and summarizing of essays; extensive writing, 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 does not substitute 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 a variety of literatures beginning with the classical Greek period through the 16th century. Prerequisite: ENGL 1302 or 2311. 3 credit hours.

ENGL 2333 WORLD LITERATURE II

Study of a variety of literatures beginning with the 17th century through the 20th century. Prerequisite: ENGL 1302 or 2311. 3 credit hours.

ENGL 2371 FORMS OF 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 2372 FORMS OF LITERATURE II-POETRY AND DRAMA

Study of poetry and drama and of mythology as it relates to these genres. Analysis of our classical heritage, origins of drama, development of contemporary drama and film, and elements and types of poetry. Prerequisite: ENGL 1302 or 2311. 3 credit hours.

ENGL 2389 ACADEMIC CO-OP ENGLISH

Integrates on-campus study with practical hands-on work experience in English. In conjunction with class seminars, the student will set specific goals and objectives in the study of English. Contact the Cooperative Work Experience Office. 3 credit hours.

ENGR 1304 ENGINEERING GRAPHICS

Use of computer-aided drafting, applied geometry, engineering lettering, orthographic projections, dimensioning, pictorial drawing and sketching, sectional views, and working drawings. Lab required. 3 credit hours.

ENGR 2301 ENGINEERING MECHANICS I

Vectors, tensors, and foundations of mechanics; motion of particles including momenta, energy, and work concepts; statics including concept of free-body diagrams, friction forces, and virtual work. Prerequisite: MATH 2413. 3 credit hours.

ENGR 2302 ENGINEERING MECHANICS II

Dynamics of particles including harmonic motion, motion of a particle in a central force field, momentum, energy methods, and relative motion in rigid bodies. Prerequisite: ENGR 2301. 3 credit hours.

ENGR 2332 MATERIALS AND PROCESSES

Simple structural elements with emphasis on forces, deformation, and material properties. Includes concepts of stress, strain, and elastic properties. Behavior phenomena such as fracture, fatigue, and creep are introduced. Prerequisite: ENGR 2301. 3 credit hours.

ENGR 2405 ELECTRICAL CIRCUIT ANALYSIS

Basic principles of R, L, and C circuits; steady-state DC and AC signals; simple transient response. Includes Kirchoff's laws, Ohm's law, and Thevenin-Norton equivalence; impedance; nodal, mesh, and loop analysis; and phasers. Laboratory experiments demonstrate basic circuit and network laws and acquaint students with electrical instruments. Lab required. Prerequisite: MATH 2414. 4 credit hours.

ENTC 1380 COOPERATIVE EDUCATION-ENGINEERING TECHNOLOGY/TECHNICIAN, GENERAL

Formerly ELAT 7300

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

ENTC 1445 FLUID POWER

Formerly ENGT 1471

A study of hydraulic and pneumatic systems including a review of schematic symbols, mechanical components, and operating principles. Interpretation of fluid power schematics and performance of calculations required to select components. Lab required. 4 credit hours.

ENTC 2380 COOPERATIVE EDUCATION-ENGINEERING TECHNOLOGY/TECHNICIAN, GENERAL

Formerly ELAT 7305

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. Prerequisite: ENTC 1380. 3 credit hours.

ENVR 1411 ENVIRONMENTAL SCIENCE

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 1470 WEST TEXAS NATURAL HISTORY

For non-science majors or an elective for science majors. Survey of the ecosystems of central and west Texas, including the effects of human impact. Taught by geologists and biologists; requires camping field trips. 4 credit hours.

EPCT 1305 ENVIRONMENTAL REGULATIONS OVERVIEW

Formerly EPNT 1305

An introduction to the history of the environmental movement, including basic requirements for compliance with the environmental regulations. Emphasis on the history of the environmental movement, environmental law, compliance and regulatory mechanisms, and pertinent acts and amendments. 3 credit hours.

EPCT 1311 INTRODUCTION TO ENVIRONMENTAL SCIENCE

Formerly EPNT 1311

An overview of environmental science and current global concerns, and a brief history of environmental ethics, resource use, and conservation. Discussion of fundamental principles of resource economics and environmental health. 3 credit hours.

EPCT 1317 ENVIRONMENTAL GEOLOGY

Formerly EPNT 1317

A study of the relationships between earth science and the environment. Emphasizes crustal geological influences on air, water, and soil focusing on the effects on human habitation. Includes issues in flood plain management, groundwater conservation, and geomaterial interactions. Emphasis on surface/groundwater contamination, remediation, and physico-chemical interactions between contaminants and fracture surfaces. 3 credit hours.

EPCT 1327 WATER TREATMENT AND OPERATIONS

Formerly EPNT 1327

Study of conventional water treatment plants including administration and management. Emphasis on the operation of motors, pumps, and disinfection in small water plants. Lab required. 3 credit hours.

EPCT 1341 PRINCIPLES OF INDUSTRIAL HYGIENE

Formerly EPNT 1341

Basic concepts in threshold limits, dose response, and general recognition of occupational hazards, including sampling statistics, calibration, and equipment use. A study of the control of occupational hazards and sample collection and evaluation methods. 3 credit hours.

EPCT 1343 TREATMENT, REMEDIATION, AND DISPOSAL TECHNIQUES

Formerly EPNT 1343

A study of the skills required in treatment, remediation, and disposal processes of solid waste, hazardous materials, and hazardous waste. Emphasizes the technologies applicable in the field. Lab required. 3 credit hours.

EPCT 1344 ENVIRONMENTAL SAMPLING AND ANALYSIS

Formerly EPNT 1344

Sampling protocol, procedures, quality control, preservation technology, and field analysis. Emphasis on analyses commonly performed by the field technician. Focus on proper selection of basic monitoring equipment, instrument calibration, field and lab analysis, sampling techniques and documentation, and sample preservation procedures. Lab required. 3 credit hours.

EPCT 1351 QUALITY ASSURANCE AND QUALITY CONTROL

Formerly EPNT 1351

Quality assurance/ quality control procedures used to confirm viability and confidence of sample results or procedures. Emphasis on documentation, blank and check sample (spike) preparation, and control tables. Lab required. 3 credit hours.

EPCT 1401 HAZARDOUS WASTE OPERATIONS AND EMERGENCY RESPONSE (HAZWOPER) TRAINING AND RELATED TOPICS

Formerly EPNT 1401

Minimum certification requirements of a hazardous waste site worker as found in 29 CFR 1910.120 and 40 CFR 264 and 265.16. Recognition of hazards associated with handling of hazardous waste. Focus on health, safety, sampling techniques, and selection and use of proper personal protection equipment. Students will receive 40-hour HAZWOPER certificate. Lab required. 4 credit hours.

EPCT 1428 BASIC WASTEWATER OPERATIONS

Formerly EPNT 1428

Introduction to the information and operational skills needed for wastewater treatment plants. Lab required. 4 credit hours.

EPCT 2212 WATER RULES AND REGULATIONS

Formerly EPNT 2212

Discussion of local, state, and national rules and regulations relevant to water. 2 credit hours.

EPCT 2304 WATER DISTRIBUTION

Formerly EPNT 2304

Study of basic operational and maintenance concepts of water distribution systems and the analysis and solution of problems in water distribution systems. 3 credit hours.

EPCT 2313 WASTEWATER COLLECTIONS

Formerly EPNT 2313

Basic concepts in operation and maintenance of collection systems. 3 credit hours.

EPCT 2333 ENVIRONMENTAL TOXICOLOGY

Formerly EPNT 2333

A review of the research determining the systematic health effects of exposures to chemicals. Discussion of risk factors, routes of entry, control measures, and acute and chronic effects. Lab required. 3 credit hours.

EPCT 2335 ADVANCED ENVIRONMENTAL INSTRUMENTAL ANALYSIS

Formerly EPNT 2335

Regulations and standards in the analysis of samples using specific analytical instruments and their procedures. Emphasis on instrument calibrator sample preparation, evaluation, and reporting of analytical results. Lab required. 3 credit hours.

EPCT 2337 SITE ASSESSMENT

Formerly EPNT 2337

Emphasis on techniques required to perform site assessment and/or conduct a site survey, including documentation required for site assessment. Lab required. 3 credit hours.

EPCT 2341 WASTEWATER TREATMENT

Formerly EPNT 2341

Advanced study of the theory of operations and maintenance of wastewater treatment. 3 credit hours.

EPCT 2342 ADVANCED WATER AND WASTEWATER CHEMISTRY

Formerly EPNT 2342

Advanced chemical and microbiological analysis for nonstandard water and wastewater samples. Lab required. 3 credit hours.

EPCT 2381 COOPERATIVE EDUCATION-ENVIRONMENTAL AND POLLUTION CONTROL TECHNOLOGY/TECHNICIAN (CAPSTONE)

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

EPCT 2403 SURFACE AND GROUNDWATER COLLECTION

Formerly EPNT 2403

In-depth study of operations and maintenance procedures for surface and groundwater collection. Lab required. 4 credit hours.

ESLC 0300 ESL CONVERSATION I

Develops non-native speakers' listening and speaking skills in order to facilitate natural conversation. May not be used to satisfy the requirement for an associate degree. Prerequisite: Assessment. 3 credit hours.

ESLC 0305 ESL CONVERSATION II

Continues to develop non-native speakers' listening and speaking skills in order to facilitate natural conversation. May not be used to satisfy the requirement for an associate degree. Prerequisite: ESLC 0300 or assessment. 3 credit hours.

ESLC 0310 ESL CONVERSATION III

Further develops non-native speakers' listening and speaking skills in order to facilitate natural conversation. May not be used to satisfy the requirement for an associate degree. Prerequisite: ESLC 0305 or assessment. 3 credit hours.

ESLC 0320 CONVERSATION: PRONUNCIATION

Pronunciations of individual phonemes, word and sentence stress, and intonation. Addresses pronunciation problems of specific language groups. May not be used to satisfy the requirement for an associate degree. Prerequisite: Assessment. 3 credit hours.

ESLG 0300 ESL GRAMMAR I

Targeted grammar structures: word order, parts of speech, nouns and pronouns, negative formation, question formation, "to be", and articles. May not be used to satisfy the requirement for an associate degree. Prerequisite: Assessment. 3 credit hours.

ESLG 0305 ESL GRAMMAR II

Continued instruction in targeted grammar structures: verb tenses, verbs in context, passive voice, and modals. May not be used to satisfy the requirement for an associate degree. Prerequisite: ESLG 0300 or assessment. 3 credit hours.

ESLG 0310 ESL GRAMMAR III

Continued instruction in targeted grammar structures: gerunds and infinitives, prepositions, comparatives, and superlatives. May not be used to satisfy the requirement for an associate degree. Prerequisite: ESLG 0305 or assessment. 3 credit hours.

ESLG 0315 ESL GRAMMAR IV

Continued instruction in targeted grammar structures: noun clauses, adjective clauses, and adverb clauses. May not be used to satisfy the requirement for an associate degree. Prerequisite: ESLG 0310 or assessment. 3 credit hours.

ESLL 0315 ESL LIFE SKILLS

Develops non-native speaker's knowledge and skills for cross-cultural communication in American society. Serves as a preparation course for Service Learning. May not be used to satisfy the requirement for an associate degree. Prerequisite: ESLC 0310, ESLR 0310, or assessment. 3 credit hours.

ESLR 0300 ESL READING I

Beginning reading comprehension of English for non-native speakers. May not be used to satisfy the requirement for an associate degree. Prerequisite: Assessment. 3 credit hours.

ESLR 0305 ESL READING II

Intermediate reading comprehension of English for non-native speakers. May not be used to satisfy the requirement for an associate degree. Prerequisite: ESLR 0300 or assessment. 3 credit hours.

ESLR 0310 ESL READING III

Advanced reading comprehension of English for non-native speakers, which focuses on issues of American culture through the study of movies. Complementary course for ESLW 0310. May not be used to satisfy the requirement for an associate degree. Prerequisite: ESLR 0300 or assessment. 3 credit hours.

ESLR 1300 GENERAL EDUCATION READING FOR ESL STUDENTS

Textbooks from core curriculum courses such as SOCI 130, HUMA 1301, or HIST 1301 are used to teach comprehension and vocabulary. A support course which may be taken prior to enrollment in the core course or concurrently. May not be used to satisfy the requirement for an associate degree. Prerequisite: ESLR 0310 or assessment. 3 credit hours.

ESLS 0315 ESL STUDY SKILLS

Develops non-native speakers' study skills in the areas of listening and note taking for academic lecture classes, test preparation, test taking, and learning styles. May not be used to satisfy the requirement for an associate degree. Prerequisites: ESLC 0305 and ESLW 0305, or assessment. 3 credit hours.

ESLV 0305 ESL VOCABULARY-IDIOMS

Teaches idiomatic English to second language learners. May not be used to satisfy the requirement for an associate degree. 3 credit hours.

ESLW 0300 ESL WRITING I

Beginning writing skills for non-native speakers. Focuses on sentence level to one-paragraph essays. May not be used to satisfy the requirement for an associate degree. Prerequisite: Assessment. 3 credit hours.

ESLW 0305 ESL WRITING II

Intermediate writing skills for non-native speakers. Focuses on multi-paragraph essays and various modes of writing. May not be used to satisfy the requirement for an associate degree. Prerequisite: ESLW 0300 or assessment. 3 credit hours.

ESLW 0310 ESL WRITING III

Advanced writing skills for non-native speakers which focuses on issues of American culture through the study of movies. Complementary course for ESLR 0310. May not be used to satisfy the requirement for an associate degree. Prerequisite: ESLW 0305 or assessment. 3 credit hours.

ESLW 0315 ESL WRITING IV

Advanced 5-paragraph essay writing for non-native speakers. Designed for students planning to take ENGL 1301. May not be used to satisfy the requirement for an associate degree. Prerequisite: ESLW 0310 or assessment. 3 credit hours.

F

FDST 1209 NUTRITION AND MENU PLANNING

Application of principles of nutrition in planning menus for various types of commercial, industrial, and institutional food service entities. 2 credit hours.

FIRS 1201 FIREFIGHTER CERTIFICATION I

Formerly FISC 1011

An introduction to firefighter safety and development. Topics include Texas Commission on Fire Protection Rules and Regulations, firefighter safety, fire science, personal protective equipment, self contained breathing apparatus, and fire reports and records. Lab required. 2 credit hours.

FIRS 1207 FIREFIGHTER CERTIFICATION II

Formerly FISC 1012

The study of basic principles and skill development in handling fire service hose and ladders. Topics include the distribution system of water supply, basic building construction, and emergency service communication, procedures, and equipment. Lab required. Prerequisite: FIRS 1201. 2 credit hours.

FIRS 1219 FIREFIGHTER CERTIFICATION IV

Formerly FISC 1014

A study of equipment, tactics, and procedures used in forcible entry, ventilation, salvage, and overhaul. Preparation for certification as a basic firefighter. Lab required. Prerequisite: FIRS 1313. 2 credit hours.

FIRS 1223 FIREFIGHTER CERTIFICATION V

Formerly FISC 1015

The study of ropes and knots, rescue, procedures and techniques, and hazardous materials. Preparation for certification as a basic firefighter. Lab required. Prerequisite: FIRS 1219. 2 credit hours.

FIRS 1233 FIREFIGHTER CERTIFICATION VII (CAPSTONE)

An in-depth study and practice of simulated emergency operations and hands-on live fire training exercises, incident command procedures, and combined operations using proper extinguishing methods. Emphasis on safety. Prerequisite: FIRS 1329. 2 credit hours.

FIRS 1313 FIREFIGHTER CERTIFICATION III

Formerly FISC 1013

General principles of fire apparatus, pump operations, fire streams, and public operations as they relate to fundamental development of basic firefighter skills. Lab required. Prerequisite: College entrance level math skills. Prerequisite: FIRS 1207. 3 credit hours.

FIRS 1329 FIREFIGHTER CERTIFICATION VI

Formerly FISC 1016

The study of fire inspection techniques and practices, public transportation, fire cause determination. Topics include fire protection systems, wildland fire, and pre-incident planning. Preparation for certification as a basic firefighter. Lab required. Prerequisite: College entrance level math skills. Prerequisite: FIRS 1223. 3 credit hours.

FIRT 1192 SPECIAL TOPICS IN FIRE SERVICES ADMINISTRATION

Formerly FISC 2100

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. 1 credit hour.

FIRT 1301 FUNDAMENTALS OF FIRE PROTECTION

Formerly FISC 1305

Study of the philosophy, history, and fundamentals of public and private fire protection. Topics include statistics of fire and property loss, agencies involved in public and private protection, legislative development, departmental organization, training, and staffing. 3 credit hours.

FIRT 1303 FIRE AND ARSON INVESTIGATION I

Formerly FISC 1340

In-depth study of basic fire and arson investigation practices. Emphasis on fire behavior principles related to fire cause and origin determination. Lab recommended. Prerequisite: FIRT 1301 or consent of Fire Science Program director. 3 credit hours.

FIRT 1305 PUBLIC EDUCATION PROGRAMS

Formerly FISC 1315

Preparation of firefighters and fire officers to develop public fire safety awareness. Emphasis on implementation of fire and public safety programs in an effort to reduce the loss of life. Lab recommended. 3 credit hours.

FIRT 1307 FIRE PREVENTION CODES AND INSPECTIONS

Formerly FISC 1310

Study of local building and fire prevention codes. Emphasis on fire prevention inspections, practices, and procedures. Lab recommended. 3 credit hours.

FIRT 1309 FIRE ADMINISTRATION I

Formerly FISC 1320

Introduction to the organization and management of a fire department and the relationship of government agencies to the fire service. Emphasis on fire service leadership from the perspective of the company officer. Prerequisite: FIRT 1301 or consent of the Fire Science Program director. 3 credit hours.

FIRT 1315 HAZARDOUS MATERIALS I

Formerly FISC 2305

Study of the chemical characteristics and behavior of various materials. Topics include storage, transportation, handling hazardous emergency situations, and the most effective methods of hazard mitigation. Lab recommended. Prerequisite: FIRT 1301 or consent of Fire Science Program director. 3 credit hours.

FIRT 1329 BUILDING CODES AND CONSTRUCTION

Formerly FISC 1335

Examination of building codes and requirements, construction types, and building materials. Topics include walls, floorings, foundations, and various roof types and the associated dangers of each. 3 credit hours.

FIRT 1331 FIREFIGHTING STRATEGIES AND TACTICS I

Formerly FISC 1450

Analysis of the nature of fire problems and selection of initial strategies and tactics including an in-depth study of efficient and effective use of manpower and equipment to mitigate the emergency. Prerequisite: FIRT 1301 or consent of Fire Science Program director. 3 credit hours.

FIRT 1338 FIRE PROTECTION SYSTEMS

Formerly FISC 1330

Study of fire detection, alarm, and extinguishing systems. Lab recommended. 3 credit hours.

FIRT 1345 HAZARDOUS MATERIALS II

Formerly FISC 2310

In-depth study of mitigation practices and techniques to effectively control hazardous material spills and leaks. Lab recommended. Prerequisite: FIRT 1315. 3 credit hours.

FIRT 1347 INDUSTRIAL FIRE PROTECTION

Formerly FISC 1325

Study of industrial emergency response teams and specific concerns related to business and industrial facilities. 3 credit hours.

FIRT 1349 FIRE ADMINISTRATION II

Formerly FISC 2320

In-depth study of fire service management as pertaining to budgetary requirements, administration, organization of divisions within the fire service, and relationships between the fire service and outside agencies. Capstone course for students pursuing an AAS in Fire Science with the Fire Officer Specialization. 3 credit hours.

FIRT 1355 METHODS OF TEACHING

Formerly FISC 2335

Preparation of public safety personnel to effectively teach technical skills, techniques, and information. 3 credit hours.

FIRT 2370 COMPANY FIRE OFFICER (CAPSTONE)

Mastery of fire ground operations and supervisory practices. Includes performance evaluation of Incident Commander, Safety Officer, Public Information Officer, and Shift Supervisor duties. Prerequisites: FIRT 1303, 1307, 1309, 1331, 1349, and 1355. 3 credit hours.

FREN 1100 FRENCH CONVERSATION I

Intensive practice in conversational French. Prerequisite: FREN 1412 or consent of discipline 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: French 1411. 4 credit hours.

FREN 2303 FRENCH LITERATURE I

Survey of French literature in its historical context from the 16th through the 18th century. Continued practice in basic language skills. Reading of selected writers such as Ronsard, Molière, and Voltaire. Prerequisite: FREN 2312. 3 credit hours.

FREN 2304 FRENCH LITERATURE II

Survey of French literature in the 19th and 20th centuries with reading from representative writers such as Hugo, Baudelaire, and Camus. Prerequisite: FREN 2312. 3 credit hours.

FREN 2311 INTERMEDIATE FRENCH I

Continued development of the four basic language skills with increased attention to reading and writing. Instruction enhanced by slides, tapes, and other audio-visual aids. Prerequisite: FREN 1412 or consent of discipline 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.



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.

GEOG 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 1401 EARTH SCIENCE

For the non-science major. Concepts of earth processes and relation to man, including basic principles from physical and historical geology, oceanography, and meteorology. Lab required. 4 credit hours.

GEOL 1402 DINOSAURS!

Evolution, ecology, and extinction of the dinosaurs from a physical and historical geology perspective. Comparative anatomy is emphasized. Dinosaur controversies will be examined in light of recent evidence. Field trips and class projects will focus on dinosaur families and current topics. Lab required. 4 credit hours.

GEOL 1403 PHYSICAL GEOLOGY

Structure of the earth and its composition including topographic maps, rocks and minerals, and geologic processes related to weathering, abrasion by wind and running water, ground water, glaciers, oceans, and volcanism. Lab required. 4 credit hours.

GEOL 1404 HISTORICAL GEOLOGY

Earth and its inhabitants as revealed in rocks and fossils. Includes plant and animal kingdoms, elementary principles of stratigraphy, and development of earth from its origin as a planet to the present. Prerequisite: GEOL 1403 or consent of instructor. 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 formation of ocean and atmosphere, geologic time, mariners, marine navigation, and bathymetry. Processes including sedimentation, plate tectonics and composition of ocean floor, chemistry of ocean water, physics of winds, waves and currents, coastal processes, and ocean's effect on weather and climate. Biology and ecology of the oceans including discussions on marine plankton, evolution and adaptation of marine life, communities, habitats, food webs, and human physical, chemical, and biological impact on world oceans. 4 credit hours.

GEOL 2389 ACADEMIC CO-OP GEOLOGY

Integrates on-campus study with practical hands-on work experience in geology. In conjunction with class seminars, the student will set specific goals and objectives in the study of geology. Contact the Cooperative Work Experience Office. 3 credit hours.

GEOL 2409 ROCKS, MINERALS, AND GEM STONES

Chemistry, classification, crystallography, identification, and occurrence of minerals. Includes formation, classification, and identification of igneous, sedimentary, and metamorphic rocks. Intended primarily for geology majors. Lab required. Prerequisite: GEOL 1403 or consent of instructor. 4 credit hours.

GERM 1100 CONVERSATIONAL GERMAN I

Intensive practice in conversational German. Prerequisite: GERM 1412 or consent of discipline coordinator; Corequisite: GERM 2311. 1 credit hour.

GERM 1110 CONVERSATIONAL GERMAN II

Continuation of GERM 1100. Prerequisite: GERM 1100; Corequisite: GERM 2312. 1 credit hour.

GERM 1411 BEGINNING GERMAN I

Introduction to the basic skills of speaking, reading, writing, and listening; designed for students with little or no previous language training. Includes attention to selected aspects of German civilization. Instruction enhanced by the use of tapes, slides, and video cassettes. 4 credit hours.

GERM 1412 BEGINNING GERMAN II

Continuation of GERM 1411 with an emphasis on the reading of elementary texts. Prerequisite: GERM 1411 or equivalent. 4 credit hours.

GERM 2303 GERMAN LITERATURE I

Survey of German literary texts selected to increase reading and translating fluency. Students will read and discuss texts in German and translate difficult passages and idioms into English. Prerequisite: GERM 1412 and consent of instructor. 3 credit hours.

GERM 2304 GERMAN LITERATURE II

Continuation of GERM 2303; selected German literary texts enhance reading and translation ability while familiarizing the student with some aspects of German literature and culture in the 18th, 19th, and 20th centuries. Students will read and discuss the texts in German and translate difficult passages and idioms into English. Prerequisite: GERM 2303 and consent of instructor. 3 credit hours.

GERM 2311 INTERMEDIATE GERMAN I

Continued development of the four basic language skills with increased attention to reading and writing. Instruction enhanced by the use of tapes, slides, and other audio-visual aids. Prerequisite: GERM 1412 or consent of discipline coordinator; Corequisite: GERM 1100. 3 credit hours.

GERM 2312 INTERMEDIATE GERMAN II

Continuation of German 2311. Prerequisite: GERM 2311; Corequisite: GERM 1110. 3 credit hours.

GOVT 2301 AMERICAN GOVERNMENT I

Introduction to politics and government in the United States. Includes the origin and development of constitutional democracy in the United States, emphasizing the constitutions of the State of Texas and the United States, federalism and intergovernmental relations, local government, and the political process. 3 credit hours.

NOTE: A government course transferred from out-of-state cannot be equivalent to this course; see an academic advisor before enrolling.

GOVT 2302 AMERICAN GOVERNMENT II

Examines the institutional structures of government at both national and state levels, including the legislative process, executive and bureaucratic structures, and judicial process. Explores civil rights and civil liberties, domestic policy, foreign relations, and national defense. 3 credit hours.

GOVT 2304 INTRODUCTION TO POLITICAL SCIENCE

Introduction to the history and methods of political science. Examines basic concepts of politics and political behavior, provides overview of the history of the discipline, explores scope and methods of political inquiry, and explores basic models of politics that operate in the modern world. This course does not apply toward the Texas legislative requirement of 6 credit hours of American government for a bachelor's degree. 3 credit hours.

GOVT 2389 ACADEMIC CO-OP GOVERNMENT

Integrates on-campus study with practical hands-on work experience in government. In conjunction with class seminars, the student will set specific goals and objectives in the study of government. Contact the Cooperative Work Experience Office. 3 credit hours.

H

HAMG 1211 SANITATION AND SAFETY

Formerly HOMA 1213

The fundamentals of sanitation practices, laws, methods, and techniques of food handling for protections, safety, and accident prevention. 2 credit hours

HAMG 1313 FRONT OFFICE PROCEDURES

Formerly HOMA 1313

A study of the flow of activities and functions in today's lodging operations. Topics include a comparison of manual, machine-assisted, and computer based methods for each front file function. 3 credit hours.

HAMG 1321 INTRODUCTION TO HOSPITALITY INDUSTRY

Formerly HOMA 1321

Introduction to the elements of the hospitality industry. 3 credit hours.

HAMG 1324 HOSPITALITY HUMAN RESOURCES MANAGEMENT

Formerly HOMA 1374

A study of the principles and procedures of managing people in the hospitality workplace. 3 credit hours.

HAMG 1340 HOSPITALITY LEGAL ISSUES

Formerly HOMA 1301

A course in legal and regulatory requirements that impact the hospitality industry. Topics include Occupational Safety and Health Administration (OSHA), labor regulations, tax laws, tip reporting, franchise regulations, and product liability laws. 3 credit hours.

HAMG 1380 COOPERATIVE EDUCATION-HOSPITALITY ADMINISTRATION AND MANAGEMENT

Formerly HOMA 1364

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

HAMG 2301 PRINCIPLES OF FOOD AND BEVERAGE OPERATIONS

Formerly HOMA 2331

An introduction to food, beverage, and labor cost 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. 3 credit hours.

HAMG 2305 HOSPITALITY MANAGEMENT AND LEADERSHIP

Formerly HOMA 1370

An overview of management and leadership in the hospitality industry with an emphasis on management philosophy, policy formation, communications, motivation, and team building. 3 credit hours.

HAMG 2307 HOSPITALITY SALES AND MARKETING

Formerly HOMA 1303

Identification of the core principles of marketing and their impact on the hospitality industry. 3 credit hours.

HAMG 2330 CONVENTIONS AND GROUP MANAGEMENT AND SERVICES

Formerly HOMA 1317

A course in the scope of the various segments of the convention market. Explorations of individual needs, and the methods and techniques to provide better service to conventions and groups. 3 credit hours.

HAMG 2332 HOSPITALITY FINANCIAL MANAGEMENT

Formerly HOMA 1341

Methods and applications of financial management within the hospitality industry. Primary emphasis on sales accountability, internal controls, and report analysis. 3 credit hours.

HAMG 2337 HOSPITALITY FACILITIES MANAGEMENT

Formerly HOMA 1309

Identification of building systems, facilities management, security, and safety. 3 credit hours.

HAMG 2581 COOPERATIVE EDUCATION-HOSPITALITY ADMINISTRATION AND MANAGEMENT

Formerly HOMA 2681

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 5 credit hours.

HIST 1301 U.S. HISTORY I

History of the United States with focus on development of American characteristics and institutions, including the forging of a new society from European, African, and American cultures. Emphasis on colonial and early national periods through the Civil War and Reconstruction. HIST 1301 and 1302 fulfill the Texas legislative requirement for 6 credit hours of history for a bachelor's degree. 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. HIST 1301 and 1302 fulfill the Texas legislative requirement for 6 hours of history for a bachelor's degree. 3 credit hours.

HIST 2301 HISTORY OF TEXAS

History of Texas from the Spanish period to the present. Emphasis on the period of Anglo-American settlement, revolution, Republic, and the development of the modern state. 3 credit hours.

HIST 2311 WESTERN CIVILIZATION I

European civilization from ancient times through the Reformation, including Greece and Rome, the Church, feudalism, the commercial revolution, and early colonial movement. 3 credit hours.

HIST 2312 WESTERN CIVILIZATION II

Western Europe from post-Reformation to the present, including the Age of Revolution, beginning of industrialism, growth of nationalism and democracy in the 19th century, causes and consequences of the two world wars, and modern Europe. 3 credit hours.

HIST 2370 STUDIES IN U.S. HISTORY

Selected topics in the history of the United States. May be repeated for credit as topics change. Prerequisite: 6 credit hours of history. 3 credit hours.

History of the Vietnam War

Comprehensive study of the United States' involvement in the Vietnam War, 1954-1975. Explores military, social, and political aspects of the conflict, and includes a historical look at both pre- and post-war Vietnam, as well as an in-depth overview of the war's effect on the U.S.

The Sixties

The development of American characteristics and institutions during the 1960s. Emphasis on political and social events, attitudes of the decade, and their influence upon contemporary society. Prerequisite: HIST 1302.

HIST 2371 ADVANCED STUDIES IN U.S. HISTORY

In-depth study of minority, local, regional, national, or international topics. May be repeated for credit as topics change. Prerequisite: 6 credit hours of history. 3 credit hours.

America and the Cold War

Study of how the conflict between capitalism and communism impacted both national events and U.S. foreign policy during the 20th century. Includes Russian Revolution, Truman Doctrine, McCarthyism, nuclear weapons policy, Vietnam War, and end of the Cold War.

The Civil War and Reconstruction

American characteristics and institutions from 1850-1877. Emphasis on social, political, economic, and military conflicts of the period. Prerequisite: HIST 1301 or consent of instructor.

History of the South

Major topics, figures, and historical debates of the American South from colonial times to the present. Recurring themes include race relations, regional and national politics, interaction of social classes, economics, social changes, and resistance to those changes.

History of Religion in the United States

History of religion in the United States from the Spanish conquest to the present. Focus on how religion has shaped the historical development of the United States. Prerequisite: HIST 1301 or 1302, or consent of instructor.

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.

HLSC 1200 PHLEBOTOMY PRACTICUM (CAPSTONE)

Consists of a minimum of 100 hours in an affiliated laboratory performing phlebotomy duties under the supervision of a Certified Phlebotomist or Clinical Laboratory Generalist. Performance of a minimum of 100 successful collections is also required. Completion of course partially fulfills requirements for Certificate of Completion in Phlebotomy and eligibility for certification as Phlebotomy Technician. Corequisite: HLSC 1500; the student must maintain a "C" average in HLSC 1500. 2 credit hours.

HLSC 1300 MEDICAL TERMINOLOGY

Basic structure of medical words. Includes prefixes, suffixes, roots, combining forms, and plurals. Emphasis on pronunciation, spelling, and definition. Focus on basic understanding of human anatomy and physiology, terms relating to these, and their medical applications. 3 credit hours.

HLSC 1305 ADVANCED MEDICAL TERMINOLOGY

Advanced medical terminology related to clinical medicine, surgery, laboratory medicine, pharmacology, radiology, and pathology. Use of medical references and other resources for research and practice. Prerequisite: HLSC 1300. 3 credit hours

HLSC 1310 HUMAN DISEASES

Comprehensive study of disease processes (causes, symptoms, and treatments); organized by body systems. 3 credit hours.

HLSC 1500 PHLEBOTOMY

Includes fundamentals of phlebotomy. Emphasizes theories and principles of biological specimen collection. Includes laboratory organization, anticoagulant action, specimen requirements acquisition procedures, interpersonal relationships, professional ethics, and procedures to safeguard against the acquisition or spread of pathogenic agents. Completion of course partially fulfills requirements for Certificate of Completion in Phlebotomy and eligibility for certification as a Phlebotomy Technician. Lab required. Prerequisites: Admission to phlebotomy program and consent of department director; Corequisite: HLSC 1200. 5 credit hours.

HLSC 2300 MEDICAL PROCEDURES

Study of laboratory tests and procedures and of surgical procedures, including techniques and instruments. 3 credit hours.

HLSC 2305 PHARMACOLOGY

Principles of pharmacology and comprehensive study of drug action, routes of administration, classes of drugs by body system, as well as antibiotics, antiviral drugs, IV fluids, blood products, anesthetics, emergency drugs, vaccines and immunizations, and chemotherapy agents. 3 credit hours.

HLSC 2310 PROFESSIONALISM AND MEDICOLEGAL ISSUES

Professional standards of conduct, confidentiality of medical records, medicolegal responsibilities, production standards, resume preparation, job opportunities, work settings, compensation range and employee benefits, interview skills, professional associations, voluntary certification, continuing education, professional image, stress management, handicapped transcriptionists, members of the healthcare team, and trends in equipment will be discussed. 3 credit hours.

HLSC 2389 ACADEMIC CO-OP HEALTH SCIENCES

Integrates on-campus study with practical hands-on work experience in health sciences. In conjunction with class seminars, the student will set specific goals and objectives in the study of health sciences. Contact the Cooperative Work Experience Office. 3 credit hours.

HORT 1200 THE LANDSCAPE INDUSTRY

Study of the landscape industry, including landscape design, construction, and management and general plant care. Prepares students to take the Certified Landscape Professional Exam, administered by the Texas Association of Landscape Contractors. 2 credit hours.

NOTE: Other requirements to take this exam may apply.

HORT 1225 IRRIGATION SYSTEMS

Comprehensive study of irrigation systems including equipment, design, performance, and maintenance as well as residential and commercial applications. Lab required. 2 credit hours.

HORT 1300 BASIC HORTICULTURE

Introduction to the culture of plants, including their distribution, factors which affect growth, plant structures, propagation, plant care, and the impact of plants on the environment and the economy. Lab required. 3 credit hours.

HORT 1305 SOILS AND PLANT NUTRITION

Study of different soil types and how they affect the availability of nutrients. Emphasis on making and keeping the soil healthy, proper drainage, organic and inorganic fertilizers, soil additives, organic matter, proper horticultural practices, and the role of micro- and macro-organisms in the soil. Lab required. 3 credit hours.

HORT 1310 PLANT PESTS AND CONTROLS

Comprehensive study of pests that inhibit plant growth and production and the methods used to control them. Includes biological, chemical, and integrated pest management (IPM) programs. Lab required. Prerequisite/Corequisite: HORT 1300. 3 credit hours.

HORT 1315 INTERIOR PLANTS

Study of plants that are utilized in interior landscapes and the special maintenance they require. Emphasis on light and water requirements, temperature control, planting media, and design of interior plantings. Lab required. 3 credit hours.

HORT 1320 TURFGRASS SCIENCE AND MANAGEMENT

Study of turfgrass science and management and the identification and control of diseases and insects that affect turfgrasses. Characteristics of turfgrasses, identification, and culture are studied. Modern management practices are explained, including installation, renovation, and maintenance. Lab required. 3 credit hours.

HORT 1330 NATIVE PLANTS OF TEXAS

For non-HORT majors. Study of plants that are indigenous to the state of Texas. Includes identification and landscape use of native plants. Lab required. 3 credit hours.

HORT 1335 PLANTS OF NORTH TEXAS

Study of plants used in the north Texas area, including trees, shrubs, ground covers, vines, and flowers. Includes identification, landscape use, and maintenance of plants. Required for all students pursuing the Professional Turfgrass Management Specialization. Lab required. 3 credit hours.

HORT 1400 WOODY PLANT MATERIALS

Study of woody plants collected or grown for use in the landscape industry, with an emphasis on the southwest. Includes trees, shrubs, woody vines, and ground covers. Prerequisite/Corequisite: HORT 1300. 4 credit hours.

HORT 1401 HERBACEOUS PLANT MATERIALS

Study of non-woody ground covers, vines, herbs, and annual and perennial flowers cultivated or collected for use in the landscape industry. Lab required. Prerequisite/Corequisite: HORT 1300. 4 credit hours

HORT 2210 EQUIPMENT MANAGEMENT

Practical study of the types of equipment used in professional turfgrass management and their maintenance requirements. Hands-on learning about preventative maintenance and small engine repair. Lab required. 2 credit hours

HORT 2290 SELECTED TOPICS IN HORTICULTURE

In-depth study of selected topics on current issues in horticulture. Prerequisites and topics covered will be annotated in each semester's Schedule of Classes. May be repeated for credit as topics change. 2 credit hours.

Plants of West Texas and The Southern Rockies

Field study of selected plants that are indigenous to the mountains of Texas' Trans-Pecos area. Emphasis on their use or potential use in north Texas landscapes. Field trip (lab) required.

HORT 2300 INTRODUCTION TO LANDSCAPE DESIGN

Principles and elements of design, spatial arrangement and development, and basic drawing skills. Lab required. 3 credit hours

HORT 2309 LANDSCAPE TECHNOLOGY I

Construction materials and their uses in the landscape industry, including soil preparation, wood, concrete and masonry construction, landscape lighting, pools and spas, and general construction details. Lab required. 3 credit hours.

HORT 2310 LANDSCAPE TECHNOLOGY II

Detailed study of the structure of the landscape business including cost estimating, organization, equipment needs, interpretation of financial reports, marketing, and labor and equipment management. Emphasis on different types of landscape operations, marketing, sales presentations, legal forms and contracts, construction law, and safety. Lab required. Prerequisite: HORT 2309. 3 credit hours.

HORT 2315 LANDSCAPE MANAGEMENT

Landscape maintenance practices, including the proper care of trees, shrubs, and turf. Includes organic and inorganic fertilization and pest control. Emphasis on cost analysis, estimating, and safety. Lab required. 3 credit hours.

HORT 2320 FLORICULTURE

Production of greenhouse crops, including flowering plants, herbs, and interior plants. Emphasis on historical development, growing requirements, and marketing of greenhouse produced plants. Lab required. Prerequisite: HORT 1300. 3 credit hours.

HORT 2325 PLANT PROPAGATION TECHNIQUES

Principles and practices of sexual and asexual plant propagation, including grafting, budding, layering, cuttings, and seed germination. Soil mixes, plant structures, and equipment and facilities for proper plant propagation are discussed. Lab required. Prerequisite/Corequisite: HORT 1300. 3 credit hours.

HORT 2330 NURSERY MANAGEMENT

Nursery crop production and management of wholesale and retail nurseries. Includes equipment, materials, structures, management, financial considerations, and marketing related to the nursery business. Lab required. Prerequisite/Corequisite: HORT 1300. 3 credit hours.

HORT 2335 PROFESSIONAL TURFGRASS MANAGEMENT

Cultural and nutritional requirements of turfgrasses that are under intense use; focus on fertilization, pest control, mowing practices, and other special needs required of golf courses and athletic fields. Lab required. Prerequisite: HORT 1320. 3 credit hours.

HORT 2336 GOLF COURSE AND PARK MANAGEMENT

Management of golf courses and municipal park departments. Emphasis on record-keeping, budgeting, labor management, maintenance programs, financial reports, and related business functions. Prerequisite: HORT 1320. 3 credit hours.

HORT 2337 SPECIALIZED TURFGRASS MANAGEMENT

Construction and management of specialized turfgrass areas, including golf greens and other specialized turf. Cultural and nutritional requirements as well as the machinery used in the maintenance of specialized turf structures will be covered. Lab required. Prerequisite: HORT 2335. 3 credit hours.

HORT 2340 ARBORICULTURAL TECHNIQUES

Proper care of trees including pruning, spraying, fertilizing, and protecting during construction and removal of dead or diseased trees. Includes study of pests that attack trees and the tools and equipment utilized by arborists. Lab required. 3 credit hours.

HORT 2350 PRACTICUM

On-the-job experience in a work assignment related to the student's field of study. Credit is earned for completion of specific course competencies, completion of 320 hours of employment during a fall, spring, or Summer III semester, and submittal of a completed journal at the end of the semester. Course is graded as pass or fail. Capstone course for program completion. 3 credit hours.

HORT 2400 SITE ANALYSIS AND SURVEYING

Basic surveying techniques and site analysis. Emphasis on grades, measurement, volume and area calculations, and mapping of existing conditions such as structures, plants, grades, and potential problems. Includes correct record keeping. Lab required. 4 credit hours.

HRPO 1305 MANAGEMENT AND LABOR RELATIONS

Formerly BUSI 2374

The development and structure of the labor movement including labor legislation, collective bargaining, societal impact, labor/management relationships, and international aspects. 3 credit hours.

HRPO 1391 SPECIAL TOPICS IN HUMAN RESOURCES MANAGEMENT

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. 3 credit hours.

HRPO 1392 SPECIAL TOPICS IN LABOR/PERSONNEL RELATIONS AND STUDIES

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. 3 credit hours.

HRPO 2301 HUMAN RESOURCES MANAGEMENT

Formerly BUSI 1374

Behavioral and legal approaches to the management of human resources in organizations. 3 credit hours.

HRPO 2307 ORGANIZATIONAL BEHAVIOR

Formerly BUSI 2372

The analysis and application of organizational theory, group dynamics, motivation theory, leadership concepts, and the integration of interdisciplinary concepts from the behavioral sciences. 3 credit hours.

HUMA 1301 INTRODUCTION TO THE HUMANITIES

Helps students to achieve a clearer understanding of the nature of humankind and the need to create. Explores the relationship between values, attitudes, ideas, and cultural achievements. 3 credit hours.

HUMA 1302 CULTURAL DIVERSITY

Evaluation of the cultural contributions of selected non-western or minority cultures. 3 credit hours.

HUMA 2389 ACADEMIC CO-OP HUMANITIES

Integrates on-campus study with practical hands-on work experience in humanities. In conjunction with class seminars, the individual student will set specific goals and objectives in the study of humanities. Contact the Cooperative Work Experience Office. 3 credit hours.

IBUS 1354 INTERNATIONAL MARKETING MANAGEMENT

Formerly MRKT 2320

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.

INMT 1447 INDUSTRIAL AUTOMATION

Formerly ELAT 2437

A study of the applications of industrial automation systems including identification of system requirements, equipment integration, motors, controllers, and sensors. Coverage of setup, maintenance, and testing of the automated system. Lab required. 4 credit hours.

INTC 1305 INTRODUCTION TO ELECTRONIC INSTRUMENTATION

Formerly ELET 1300

A survey of the instrumentation field and the professional requirements of the instrumentation technician, including an introduction to computer and calculator applications involved in basic electronic circuit analysis. Lab required. 3 credit hours.

INTC 1307 ELECTRONIC TEST EQUIPMENT

Formerly ELAT 2330

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. 3 credit hours.

INTD 1301 APPLIED INTERIOR DESIGN I

Provides information in planning interior floor plans and elevations with consideration to circulation and room functions. Includes coordination and selection of furniture, finishes, and colors. Prerequisite: ARTS 1311. 3 credit hours.

INTD 2302 APPLIED INTERIOR DESIGN II

Apply knowledge and skills from INTD 1301 to advanced solutions of special problems in commercial interiors, including working drawings, specifications, and client-designer communications. Prerequisite: ARTS 1311. 3 credit hours.

INTD 2303 APPLIED INTERIOR DESIGN III

Helps the interior design student who is in the final semester to prepare a portfolio of professional quality. Computer-aided drafting and design skills and interior design skills will be combined in the solution and presentation of problems. Lab required. Prerequisites: INTD 1301 and 2302, and DFTG 1352. 3 credit hours.

IPPD 1311 EXPRESSIVE AND RECEPTIVE FINGERSPELLING AND NUMBERS

Formerly IPPD 1104

Practical focus on the manual alphabet, numbers, and lexicalized fingerspelling. Recognizing cardinal numbers, ordinal numbers, transitional handshapes, mathematical functions, monetary designations, and the special significance of formation, placement, positioning, and rhythm of fingerspelling-related theories and methodologies. Course conducted primarily without voice; however, there will be designated times for voicing. Lab required. Prerequisite: IPPD 1404 or SGNL 1401, or credit by exam. 3 credit hours.

IPPD 1321 INTRODUCTION TO THE INTERPRETING PROFESSION

Formerly IPPD 2304

Introduction to theories and principles, process models, special requirements of interpreting, the TCDHH RID Code of Ethics, and general business practices. Includes methods and techniques of interpreting for deaf individuals who may or may not use ASL. Also includes a brief history of the RID, introduces the differences between interpreting and transliterating, and considers various special settings. Lab required. Prerequisite: IPPD 1445 or SGNL 2402. 3 credit hours.

IPPD 1347 DEAF CULTURE

Formerly IPPD 1303

Overview of American Deaf culture and the Deaf community including their history, values, traditions, and dynamics. Introduces different views, theories, and definitions and examines developmental issues through psychological and socio-cultural perspectives. Course conducted primarily without voice; however, there will be designated times for voicing. 3 credit hours.

IPPD 1391 SPECIAL TOPICS IN SIGN LANGUAGE INTERPRETING

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. Lab required. Prerequisite: IPPD 2301. 3 credit hours.

IPPD 1404 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. Lab required. 4 credit hours.

NOTE: May register for this course as either IPPD 1404 or SGNL 1401 (foreign language), but not for both.

IPPD 1405 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. Lab required. Prerequisite: IPPD 1404 or SGNL 1401, or credit by exam. 4 credit hours.

NOTE: May register for this course as either IPPD 1405 or SGNL 1402 (foreign language), but not for both.

IPPD 1444 ASL: INTERMEDIATE I

Formerly IPPD 2401

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 application of basic ethical behavior. Course conducted primarily without voice; however, there will be designated times for voicing. Lab required. Prerequisite: IPPD 1405 or SGNL 1402, or credit by exam. 4 credit hours.

NOTE: May register for this course as either IPPD 1444 or SGNL 2401 (foreign language), but not for both.

IPPD 1445 ASL: INTERMEDIATE II

Formerly IPPD 2402

Continuation of IPPD 1444; 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. Course conducted primarily without voice; however, there will be designated times for voicing. Lab required. Prerequisite: IPPD 1444 or SGNL 2401, or credit by exam. 4 credit hours.

NOTE: May register for this course as either IPPD 1445 or SGNL 2402 (foreign language), but not for both.

IPPD 2286 PRACTICUM I - SIGN LANGUAGE INTERPRETER

Formerly IPPD 2201

Supervised interpreting opportunities in various community settings. Includes scheduled discussions on job preparation, business practices, current issues, and applications of ethics. Also includes practicum experience with a mentor and observations of licensed interpreters. Lab. Prerequisite: IPPD 1321. 2 credit hours.

IPPD 2287 PRACTICUM II - SIGN LANGUAGE INTERPRETER

Formerly IPPD 2202

Continued mentoring, allowing students to select an area of specialization such as education, medicine, law, business, or community service. Includes scheduled discussions of job preparation, business practices, current issues, and applications of ethics. May include observations of licensed interpreters. Lab. Prerequisites: IPPD 2286 and 2301. 2 credit hours.

IPPD 2301 INTERPRETING I

Formerly IPPD 2305

Focuses on skill building and developing fluency in interpreting; expands on IPPD 1321. Includes consideration of the physical and mental requirements of interpreting, RID Code of Ethics, general business practices, and practical applications of the methods and techniques of interpreting by using role plays. Continued focus on the differences between interpreting and transliterating, and on various special settings. Lab required. Prerequisite: IPPD 1321. 3 credit hours.

IPPD 2311 SPECIALIZED INTERPRETING/TRANSLITERATING

Formerly IPPD 2308

Focuses on special settings: educational, medical, legal, and artistic. Continued focus on skill building, physical and mental requirements of interpreting, RID Code of Ethics, methods and techniques of interpreting through practical application, voice interpreting, use of role plays, and differences between interpreting and transliterating in various theoretical models. Lab required. Prerequisite: IPPD 2301. 3 credit hours.

IPPD 2378 SIGN TO VOICE

Formerly IPPD 2307

Focuses on register, word selection, receptive skills, team interpreting, physical location of interpreters, use of a Certified Deaf Intermediary Interpreter (CDI), and on matching the tone, intent, and emotion of the signer with the appropriate vocal intonation. Attention given to the special requirements of voicing for deaf individuals who may or may not use ASL. Lab required. Prerequisite: IPPD 2301. 3 credit hours.

J

JAPN 1411 BEGINNING JAPANESE I

Introduction to the basic skills of speaking, reading, writing, and listening with attention to selected aspects of Japanese culture; designed for students with little or no previous language training. Instruction is enhanced by the use of tapes, slides, and video cassettes. 4 credit hours.

JAPN 1412 BEGINNING JAPANESE II

A continuation of JAPN 1411. Prerequisite: JAPN 1411. 4 credit hours.

JAPN 2311 INTERMEDIATE JAPANESE I

Continuing development of the four basic skills of speaking, reading, writing, and listening, emphasizing conversational and reading skills. Designed for students who have completed Beginning Japanese II. Additional Kanji structures are introduced. Also includes attention to selected aspects of Japanese culture. Prerequisite: JAPN 1412. 3 credit hours.

JAPN 2312 INTERMEDIATE JAPANESE II

Continued development of four basic language skills with emphasis on conversation and reading skills. Additional Kanji and grammar structures are introduced. Includes attention to selected aspects of Japanese culture. Prerequisite: JAPN 2311. 3 credit hours.

L

LGLA 1303 LEGAL RESEARCH

Formerly LEGL 1302

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. 3 credit hours.

LGLA 1305 LEGAL WRITING

This course provides a working knowledge of the fundamentals of effective legal writing. Topics include briefs, legal memoranda, case and fact analysis, citation forms, and legal writing styles. 3 credit hours.

LGLA 1307 INTRODUCTION TO LAW AND THE LEGAL PROFESSION

Formerly LEGL 1301

This course provides an overview of the law and the legal professions. Topics include legal concepts, systems, and terminology; ethical obligations and regulations; professional trends and issues with particular emphasis on the paralegal. 3 credit hours.

LGLA 1317 LAW OFFICE TECHNOLOGY

This course introduces computer technology and its applications within the law office. Topics include the use of computer technology in the delivery of legal services with particular emphasis on the paralegal's role. 3 credit hours.

LGLA 1346 CIVIL LITIGATION I

Formerly LEGL 2301

This course presents fundamental concepts and procedures of civil litigation with emphasis on the paralegal's role. Civil Litigation I together with Civil Litigation II covers litigation from the pretrial stage to the post trial phase. 3 credit hours.

LGLA 1347 CIVIL LITIGATION II

This course presents fundamental concepts and procedures of civil litigation with emphasis on the paralegal's role. Civil Litigation II together with Civil Litigation I covers litigation from the pre-trial stage to the post-trial stage. 3 credit hours.

LGLA 1353 WILLS, TRUSTS, AND PROBATE ADMINISTRATION

Formerly LEGL 2304

This course presents fundamental concepts of the law of wills, trusts, and probate administration with emphasis on the paralegal's role. 3 credit hours.

LGLA 1355 FAMILY LAW

Formerly LEGL 2303

This course presents fundamental concepts of family law with emphasis on the paralegal's role. Topics include formal and informal marriages, divorce, annulment, marital property, and the parent-child relationship. 3 credit hours

LGLA 1380 COOPERATIVE EDUCATION-PARALEGAL/LEGAL ASSISTANT

Formerly LEGL 7300

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. 3 credit hours.

LGLA 1391 SPECIAL TOPICS IN PARALEGAL/LEGAL ASSISTANT

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. 3 credit hours.

LGLA 2303 TORTS AND PERSONAL INJURY LAW

Formerly LEGL 2307

This course presents fundamental concepts of tort law with emphasis on the paralegal's role. Topics include intentional torts, negligence, and strict liability. 3 credit hours

LGLA 2307 LAW OFFICE MANAGEMENT

Formerly LEGL 1305

This course presents the fundamentals of law office management and organization including basic principles and structure of management, administrative and substantive systems in the law office, and law practice technology. 3 credit hours.

LGLA 2333 ADVANCED LEGAL DOCUMENT PREPARATION

Preparation of legal documents based on hypothetical fact situations drawn from various areas including real estate, family law, contracts, litigation, and business organization. 3 credit hours.

LGLA 2381 COOPERATIVE EDUCATION-PARALEGAL/LEGAL ASSISTANT

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

LOTT 1401 INTRODUCTION TO FIBER OPTICS

Formerly ELAT 2465

An introductory course in fiber optics and its application including advantages of fiber, light transmission in fiber, types of fiber, sources, detectors, and connectors. Lab required. 4 credit hours.

LOTT 2440 MICROWAVE FUNDAMENTALS

Formerly ELET 2435

Introduction to microwave theory and applications, transmitter and receiver. Lab required. 4 credit hours.

M

MATH 0115 INTRODUCTORY GEOMETRY

Study of plane and solid geometry; recommended for students who have not passed the TASP mathematics requirement; required for students who have not passed high school geometry and are planning to take MATH 1314, 1316, or 2312. Lab included. May not be used to satisfy the requirements of an associate degree. Prerequisite: MATH 0305 or equivalent. 1 credit hour.

MATH 0300 BASIC MATHEMATICS

Study of arithmetic operations with whole numbers, fractions, decimals, percents, and basic geometry. Introduction to algebra including signed numbers, expressions, and equations. Lab included. May not be used to satisfy the requirements of an associate degree. 3 credit hours.

MATH 0302 PRE-ALGEBRA

Study of mathematical operations with signed numbers, algebraic expressions, and polynomials; involves solving linear equations and geometric applications. Lab included. May not be used to satisfy the requirements of an associate degree. Prerequisite: MATH 0300 or equivalent. 3 credit hours.

MATH 0305 BEGINNING ALGEBRA

Study of rational numbers, expressions, linear equations and inequalities, polynomials, factoring, radicals, rational expressions, rational equations, exponents, quadratic equations, and graphing. Lab included. May not be used to satisfy the requirements of an associate degree. Prerequisite: MATH 0302 or equivalent. 3 credit hours.

MATH 0310 INTERMEDIATE ALGEBRA

Study of polynomials, rational expressions and equations, radicals, exponents, quadratic equations, inequalities, systems of equations, functions, graphing, and parabolas. Lab included. May not be used to satisfy the requirements of an associate degree. Prerequisite: MATH 0305 or equivalent. 3 credit hours.

MATH 0320 MATH STUDY SKILLS

Explores techniques to reduce anxiety through increased skill development in mathematics, study strategies, test-taking strategies, anxiety awareness, learning style awareness, relaxation, and wellness. This course is for enrichment and is not required in the developmental math course sequence. May not be used to satisfy the requirements of an associate degree. 3 credit hours.

MATH 1314 COLLEGE ALGEBRA

Relations and functions: linear, polynomial, rational, exponential, logarithmic, and inverse functions, composition of functions, absolute value, theory and systems of equations, complex numbers, matrices, sequences, and the binomial theorem. Graphing calculator required. Lab required. Prerequisites: Two years high school algebra or MATH 0310 within the last three years, and one year of high school geometry or MATH 0115. 3 credit hours.

MATH 1316 TRIGONOMETRY

Angular measure, functions of angles, identities, solution of triangles, equations, inverse trigonometric functions, complex numbers, and polar coordinates. Graphing calculator required. Prerequisites: Two years of high school algebra and one year of high school geometry within the last three years. 3 credit hours.

MATH 1324 PRE-CALCULUS FOR BUSINESS AND ECONOMICS

For non-math majors. Equations, inequalities, functions, matrices, linear programming including the simplex method, probability, and statistics. Lab required. Prerequisite: Two years high school algebra or equivalent within the last three years. 3 credit hours.

MATH 1325 CALCULUS FOR BUSINESS AND ECONOMICS

Study of differential calculus and integral calculus, including exponential and logarithmic functions, functions of several variables, and basic differential equations. Lab required. Prerequisite: MATH 1324 within the last three years. 3 credit hours.

MATH 1332 CONTEMPORARY MATHEMATICS

For liberal arts and non-engineering technical majors. Involves solving equations, graphs and functions, scheduling, circuits and other math topics in management science, counting methods, probability, and consumer mathematics. Prerequisite: One year of high school algebra or MATH 0305 within the last three years. 3 credit hours.

MATH 1342 STATISTICS

Data collection and tabulation, measures of central tendency, correlation, linear regression, statistical distributions, probability, and hypothesis testing with applications in various fields. Graphing calculator required. Lab required. Prerequisite: Two years of high school algebra or equivalent within the last three years. 3 credit hours.

MATH 1370 INTRODUCTION TO THE HISTORY OF MATHEMATICS

Study of the development of mathematics from ancient to modern times through the exploration of mathematical problems and techniques, the study of famous mathematicians, and the study of the relationship between mathematics and the societies and cultures in which it developed. 3 credit hours.

MATH 2305 DISCRETE MATHEMATICS I

Introduction to mathematical logic and algorithms. Graph theory, Boolean algebra, combinatorics, and applications to computer science. Lab required. Prerequisite: MATH 2413 within the last three years. 3 credit hours.

MATH 2312 PRE-CALCULUS FOR MATHEMATICS AND SCIENCE

Functions and analytic geometry including polynomial, rational, exponential, logarithmic, and trigonometric functions, complex numbers, vectors, conics, transformation of coordinates, polar coordinates, and parametric equations. Emphasis on mathematical reasoning in preparation for calculus. Some knowledge of trigonometry is needed. Graphing calculator required. Lab required. Prerequisite: MATH 1314 or equivalent within the last three years. 3 credit hours.

MATH 2318 LINEAR ALGEBRA

Linear equations, matrices, real vector spaces, linear transformations, and eigenvectors. Graphing calculator required. Prerequisite: MATH 2414 within the last three years. 3 credit hours.

MATH 2320 DIFFERENTIAL EQUATIONS

Differential equations including systems of equations, linear equations, separation of variables, series solutions, uniqueness of solutions, initial value problems, transform methods, and singular points. Graphing calculator required. Prerequisite: MATH 2414 within the last three years. 3 credit hours.

MATH 2413 CALCULUS I

Limits, continuity, derivatives, applications of the derivative, and integrals. Graphing calculator required. Lab included. Prerequisite: MATH 2312 or equivalent within the last three years. 4 credit hours.

MATH 2414 CALCULUS II

Calculus of inverse functions, applications of integration, techniques of integration, infinite series, differential equations, and polar functions. Graphing calculator required. Lab included. Prerequisite: MATH 2413 within the last three years. 4 credit hours.

MATH 2415 CALCULUS III

Vectors in two and three dimensions, vector-valued functions, functions of several variables, multiple integration, and calculus of vector fields. Graphing calculator required. Lab included. Prerequisite: MATH 2414 within the last three years. 4 credit hours.

MATH 2389 ACADEMIC CO-OP MATHEMATICS

Integrates on-campus study with practical hands-on work experience in mathematics. In conjunction with class seminars, the individual student will set specific goals and objectives in the study of mathematics. Contact the Cooperative Work Experience Office. 3 credit hours.

MRKG 1311 PRINCIPLES OF MARKETING

Formerly MRKT 1305

Introduction to basic marketing functions; identification of consumer and organizational needs; explanation of economic, psychological, sociological, and global issues; and description and analysis of the importance of marketing research. 3 credit hours.

**MRKG 1380 COOPERATIVE EDUCATION-BUSINESS
MARKETING AND MARKETING MANAGEMENT**

Formerly MRKT 7300

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

**MRKG 1391 SPECIAL TOPICS IN BUSINESS
MARKETING AND MARKETING MANAGEMENT**

Formerly MRKT 2330

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.

**MRKG 2381 COOPERATIVE EDUCATION-BUSINESS
MARKETING AND MARKETING MANAGEMENT**

Formerly MRKT 7305

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

MUAP 1101-1190 SECONDARY APPLIED MUSIC

Lab course for the music minor. Private instruction in the area of the student's concentration, consisting of one 30-minute lesson per week. Students must remain enrolled in at least four music credits during the semester, including an ensemble (see MUEN). Audition required. May be repeated for credit. 1 credit hour.

MUAP 1101 Secondary Applied Music Violin

MUAP 1105 Secondary Applied Music Viola

MUAP 1109 Secondary Applied Music Cello

MUAP 1113 Secondary Applied Music Double Bass

MUAP 1115 Secondary Applied Music Electric Bass

MUAP 1117 Secondary Applied Music Flute

MUAP 1121 Secondary Applied Music Oboe

MUAP 1125 Secondary Applied Music Bassoon

MUAP 1129 Secondary Applied Music Clarinet

MUAP 1133 Secondary Applied Music Saxophone

MUAP 1137 Secondary Applied Music Trumpet

MUAP 1141 Secondary Applied Music French Horn

MUAP 1145 Secondary Applied Music Trombone

MUAP 1149 Secondary Applied Music Baritone

MUAP 1153 Secondary Applied Music Tuba

MUAP 1157 Secondary Applied Music Percussion

MUAP 1158 Secondary Applied Music Drum Set

MUAP 1161 Secondary Applied Music Guitar

MUAP 1162 Secondary Applied Music Jazz Guitar

MUAP 1165 Secondary Applied Music Organ

MUAP 1169 Secondary Applied Music Piano

MUAP 1170 Secondary Applied Music Jazz Piano

MUAP 1177 Secondary Applied Music Harp

MUAP 1181 Secondary Applied Music Voice

MUAP 1187 Secondary Applied Music Composition

MUAP 1188 Secondary Applied Music Electroacoustic Composition

MUAP 1189 Secondary Applied Music Song Writing

MUAP 1190 Secondary Applied Music Arranging

MUAP 1201-1290 PRINCIPAL APPLIED MUSIC

Lab course for the music major. 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 six music credits during the semester, including an ensemble (see MUEN). Audition required. May be repeated for credit. 2 credit hours.

MUAP 1201 Principal Applied Music Violin

MUAP 1205 Principal Applied Music Viola

MUAP 1209 Principal Applied Music Cello

MUAP 1213 Principal Applied Music Double Bass

MUAP 1215 Principal Applied Music Electric Bass

MUAP 1217 Principal Applied Music Flute

MUAP 1221 Principal Applied Music Oboe

MUAP 1225 Principal Applied Music Bassoon

MUAP 1229 Principal Applied Music Clarinet

MUAP 1233 Principal Applied Music Saxophone

MUAP 1237 Principal Applied Music Trumpet

MUAP 1241 Principal Applied Music French Horn

MUAP 1245 Principal Applied Music Trombone

MUAP 1249 Principal Applied Music Baritone

MUAP 1253 Principal Applied Music Tuba

MUAP 1257 Principal Applied Music Percussion

MUAP 1258 Principal Applied Music Drum Set

MUAP 1261 Principal Applied Music Guitar

MUAP 1262 Principal Applied Music Jazz Guitar

MUAP 1265 Principal Applied Music Organ

MUAP 1269 Principal Applied Music Piano

MUAP 1270 Principal Applied Music Jazz Piano

MUAP 1277 Principal Applied Music Harp

MUAP 1281 Principal Applied Music Voice

MUAP 1287 Principal Applied Music Composition

MUAP 1288 Principal Applied Music Electroacoustic Composition

MUAP 1289 Principal Applied Music Song Writing

MUAP 1290 Principal Applied Music Arranging

MUEN 1121 CCCCD JAZZ LAB BAND

Consisting of 16-21 instrumentalists and 1 vocalist, the band performs both traditional and contemporary jazz literature. Several performances each semester (includes some travel). Audition required. May be repeated for credit. 1 credit.

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.

MUEN 1123 PLANO COMMUNITY BAND

A large community ensemble that performs a wide variety of music literature. May be repeated for credit. 1 credit.

MUEN 1131 NEW MUSIC ENSEMBLE

Performs experimental, avant garde, electronic, and contemporary music for mixed media ensemble. Audition required. May be repeated for credit. 1 credit hour.

MUEN 1132 KEYBOARD ENSEMBLE

Traditional piano literature for multiple performers and arrangements for electronic keyboard ensemble. Audition required. May be repeated for credit. 1 credit hour.

MUEN 1133 WOODWIND ENSEMBLE

A small group of woodwinds performs traditional classical repertoire. Audition required. May be repeated for credit. 1 credit hour.

MUEN 1134 BRASS ENSEMBLE

A small group of brass players performs traditional classical repertoire. Audition required. May be repeated for credit. 1 credit hour.

MUEN 1135 FLUTE CHOIR

A small group of flutists performs traditional classical repertoire. Audition required. May be repeated for credit. 1 credit hour.

MUEN 1136 CHAMBER ENSEMBLE

A mixed instrumentation of wind and string players performs traditional classical repertoire. Audition required. May be repeated for credit. 1 credit hour.

MUEN 1137 GUITAR ENSEMBLE

A small group of guitarists performs traditional classical repertoire. Audition required. May be repeated for credit. 1 credit hour.

MUEN 1138 PERCUSSION ENSEMBLE

A small group of percussion players performs jazz and traditional repertoire. Audition required. May be repeated for credit. 1 credit hour.

MUEN 1139 STRING ENSEMBLE

A small group of string players performs traditional classical repertoire. Audition required. May be repeated for credit. 1 credit hour.

MUEN 1140 JAZZ COMBOS

Ensembles consisting of 4-9 members; repertoire includes both instrumental and vocal music typical of small jazz groups. Several performances each semester (includes some travel). Audition required. May be repeated for credit. 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

A select ensemble consisting of 12-16 singers and rhythm section; repertoire includes vocal jazz literature. Several performances each semester; annual Spring tour. May be repeated for credit. Audition required. 1 credit hour.

MUEN 1143 PLANO CIVIC CHORUS

An adult community chorus with members from Collin and nearby counties. A free-standing, non-profit organization; continual membership encouraged. Audition required. May be repeated for credit. 1 credit hour.

MUEN 1144 COLLIN COUNTY COMMUNITY CHOIR

An adult community choir that rehearses at McKinney High School. Open to local community members; no audition required. May be repeated for credit. 1 credit hour.

MUSB 1305 SURVEY OF MUSIC BUSINESS

Formerly MUSI 1377

An overview of the music industry including songwriting, live performance, the record industry, music merchandising, contracts and licenses, and career opportunities. 3 credit hours.

MUSB 1391 SPECIAL TOPICS IN MUSIC BUSINESS MANAGEMENT AND MERCHANDISING

Formerly MUSI 1378

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.

MUSB 2380 COOPERATIVE EDUCATION-MUSIC BUSINESS MANAGEMENT AND MERCHANDISING

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

MUSC 1215 MUSIC PERFORMANCE EAR TRAINING I

Introduction to sight singing tonal music in commonly used clefs. Topics include aural study (including dictation) of the commercial aspects of melody and diatonic harmony. 2 credit hours.

MUSC 1303 HISTORY OF POPULAR MUSIC

Formerly MUSI 1310

A study of commercial music industry trends and developments through historical analysis. Topics include the evolution of the music industry with emphasis on the development of popular musical styles and the impact of culture and technology on industry growth. 3 credit hours.

MUSC 1321 SONGWRITING

Formerly MUSI 1286

Introduction to the techniques of writing marketable songs including the writing of lyrics and melodies, setting lyrics to music, developing lyrical and musical "hooks", analyzing the marketplace, and developing a production plan for a song demo. 3 credit hours.

MUSC 1327 AUDIO ENGINEERING I

Formerly MUSI 1371

An overview of the modern recording studio and related personnel. Topics include basic studio electronics and acoustic principles, wave form analysis, microphone concepts and miking techniques, studio set up and signal flow, recording console theory, signal processing concepts, tape machine principles and operation, and an overview of mixing and editing. 3 credit hours.

MUSC 1331 MUSICAL INSTRUMENT DIGITAL INTERFACE (MIDI) I

Formerly MUSI 1290

An overview of Musical Instrument Digital Interface (MIDI) systems and applications. Topics include the history and evolution of MIDI, hardware requirements, computer numbering systems, channels and modes, the MIDI language, and typical implementation of MIDI applications in the studio environment using software-based sequencing programs. 3 credit hours.

MUSC 1333 SYNTHESIS I

Formerly MUSI 1291

A study of sound synthesis including sound considerations, electronic sound sources, basic signal processing, and voltage control and modulation. Topics include additive, subtractive, and AM and FM synthesis types. 3 credit hours.

MUSC 2213 COMMERCIAL MUSIC THEORY I

Formerly MUSI 1375

Introduction to chord progressions, song forms, and harmonic techniques used in commercial music. Topics include modern chord notation and chord voicings. 2 credit hours.

MUSC 2330 COMMERCIAL MUSIC ARRANGING AND COMPOSITION

Formerly MUSI 2286

Presentation of arranging and composition for projects in industry recognized genres including songwriting, show writing, video, and film. 3 credit hours.

MUSC 2370 AUDIO FOR MULTIMEDIA I

Formerly COMM 2370 & MUSI 2350

Explores the physical properties of sound and how it is recorded, edited, and manipulated in existing digital audio mediums. Designed for use in multimedia applications such as theatre, video, and computer programs. Demonstrates how to interact with sound designers and researchers and how to develop soundscapes that communicate in a multimedia experience with graphics, video, and text. Students will research copyright-free sound clips. Lab required. Prerequisite: AGDT 1310. 3 credit hours.

MUSC 2371 AUDIO FOR MULTIMEDIA II

Formerly MUSI 2351

Explores techniques used to process, store, synchronize, and transmit audio signals and MIDI data. Discuss different formats used for various animation and multimedia software. Studies differences in sound quality of CD-ROM, television, and video. Offered spring semesters. Lab required. Prerequisite: MUSC 2350. 3 credit hours.

MUSC 2427 AUDIO ENGINEERING II

Formerly COMM 2324 & MUSI 1372

A continuation of Audio Engineering I with emphasis on implementation of the techniques and theories of the recording process. Topics include applications of microphones, the audio console, the multitrack tape recorder, and signal processing devices in recording session environments. 4 credit hours.

MUSC 2447 AUDIO ENGINEERING III

Formerly MUSI 2371

Presentation of advanced procedures and techniques utilized in recording and manipulating audio information. Topics include advanced computer-based console automation, hard disk based digital audio editing, nonlinear digital multitrack recording, and advanced engineering project completions. 4 credit hours.

MUSC 2448 AUDIO ENGINEERING IV

Formerly MUSI 2372

Examination of the role of the producer including recording, mixing, arranging, analyzing projects, session planning, communication, budgeting, business aspects, technical considerations, and music markets. 4 credit hours.

MUSI 1116 AURAL SKILLS I

Skills developed include sight-singing, solmization, and melodic and harmonic dictation. Corequisite: MUSI 1311. 1 credit hour.

MUSI 1117 AURAL SKILLS II

Further emphasis on diatonic sight-singing and dictation. Prerequisite: MUSI 1116; Corequisite: MUSI 1312. 1 credit hour.

MUSI 1162 VOCAL DICTION I

Principles of basic pronunciation and enunciation in English and Italian. Phonetic study with practical application to vocal literature. 1 credit hour.

MUSI 1165 VOCAL DICTION II

Principles of basic pronunciation and enunciation in German and French. Phonetic study with practical application to vocal literature. Prerequisite: MUSI 1162. 1 credit hour.

MUSI 1171 LEISURE PIANO I

Fundamentals of keyboard technique for the non-music major. This two-hour per week course covers chapters 1-10 of *Alfred's Group Piano for Adults, Volume 1*. May be repeated for credit. 1 credit hour.

MUSI 1172 LEISURE PIANO II

Emphasis on development of sight reading skills, repertoire, and keyboard technique. This two-hour per week course covers chapters 11-20 of *Alfred's Group Piano for Adults, Volume 1*. May be repeated for credit. Prerequisite: MUSI 1171. 1 credit hour.

MUSI 1181 BEGINNING PIANO I

Fundamentals of keyboard technique for music majors, but open to all students. Five finger major and minor positions, two octave major scales, arpeggios, sight reading, elementary chord progressions, and elementary piano repertoire. This three-hour per week course covers chapters 1-15 of *Alfred's Group Piano for Adults, Volume 1*. May be repeated for credit. Lab required. 1 credit hour.

MUSI 1182 BEGINNING PIANO II

Development on two octave minor scales, arpeggios, diatonic chord progressions, and piano repertoire. This three-hour per week course covers chapters 16-30 of *Alfred's Group Piano for Adults, Volume 1*. May be repeated for credit. Lab required. Prerequisite: MUSI 1181 or 1172. 1 credit hour.

MUSI 1183 CLASS VOICE

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 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 1263 IMPROVISATION

Study and performance of techniques used in the spontaneous creation of melodic and harmonic ideas common in jazz and popular music. Through the use of scales, modes, and other devices, the instrumentalist or vocalist becomes proficient in creating a jazz style solo. Offered fall semesters. Lab required. Prerequisites: MUSI 1311 and 1116, or demonstrated competence. 2 credit hours.

MUSI 1287 INTRODUCTION TO COMPOSITION

Fundamentals of music composition including structural and formal composition techniques, computer-based musical notation, and basic MIDI sequencing. Corequisite: MUSI 1311. 2 credit hours.

MUSI 1301 MUSIC FUNDAMENTALS

Introduces the elements of music theory: scales, intervals, keys, triads, elementary ear training, keyboard harmony, notation, meter, and rhythm. 3 credit hours.

MUSI 1306 MUSIC APPRECIATION

Understanding music through the study of cultural periods, major composers, and musical elements. 3 credit hours.

MUSI 1310 HISTORY OF JAZZ

Development of jazz music in the 20th century studied through text, audio, and video recordings. Includes the personalities and elements that shaped jazz and the social issues of the times as displayed by the music of each decade. 3 credit hours.

MUSI 1311 MUSIC THEORY I

The second course in the music theory sequence which investigates modes, transposition, cadences and non-harmonic tones, phrase structure, musical textures, and four-part voice leading. Related keyboard and aural skills are covered in corequisite classes. Prerequisite: MUSI 1301; Corequisites: MUSI 1116 and 1181 (MUSI 1171 for students pursuing the Audio Engineering Certificate). 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. 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 2118 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 2181 BEGINNING PIANO III

Continuation of MUSI 1182. Development of three octave scales and arpeggios, accompaniment patterns, intermediate and 20th century piano repertoire, advanced sight reading skills. May be repeated for credit. Lab required. Prerequisite: MUSI 1182. 1 credit hour.

MUSI 2182 BEGINNING PIANO IV

Final course in Beginning Piano sequence; prepares music majors for piano barrier exams. Culmination of skills including scales and arpeggios four octaves hands together, advanced chord progressions, more difficult piano repertoire, and competency at sight reading. May be repeated for credit. Lab required. Prerequisite: MUSI 2181. 1 credit hour.

MUSI 2308 INTRODUCTION TO MUSIC LITERATURE

Study of selected works in music literature from major periods of music history. Includes musical styles, forms, and composers from the Medieval period to the present. Guided listening experiences are an important part of the course. Required for all music majors. Offered spring semesters. 3 credit hours.

MUSI 2311 MUSIC THEORY III

Study of music theory from late Renaissance polyphony through Baroque counterpoint and continuing with the chromatic harmonies of the Classic period as found within Sonata Allegro and Rondo formal structures. Related keyboard and aural skills are covered in corequisite classes. Offered fall semesters. Prerequisite: MUSI 1312; Corequisites: MUSI 2116 and 2181. 3 credit hours.

MUSI 2312 MUSIC THEORY IV

Music theory beginning with the extended harmonies of the Romantic era and continuing through 20th century formal processes and techniques. Related keyboard and aural skills are covered in corequisite classes. Offered spring semesters. Prerequisite: MUSI 2311; Corequisites: MUSI 2118 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.

N

NURS 1800 NURSING I

Introduction to the nursing process as a problem-solving method to develop the communicative and technical skills necessary to meet basic human needs. Concepts of illness, stress adaptation, culture, and death and dying are introduced. Through content and selected clinical experiences, students develop fundamental nursing skills to care for clients in all age groups. A grade of "C" or better is required to progress to NURS 1805. Lab required. Prerequisites: BIOL 2401, 2402, and 2420, and MATH 1324, 1342, or 1314. 8 credit hours.

NURS 1805 NURSING II

Advanced assessment skills; application of family-centered nursing care with a focus on normal, maternal, and child health. Concepts of illness in all age groups include problems that alter mobility (musculo-skeletal system) and problems of the reproductive body systems. Explores principles of nutrition, pharmacology, and medication administration as well as a unit on the surgically induced client. Lab required. A grade of "C" or better is required to progress to NURS 2400. Prerequisite: NURS 1800. 8 credit hours.

NURS 2400 NURSING III

Theoretical content begins with disturbances in feelings, thoughts, and behaviors and introduces interferences with basic human needs related to problems of the upper and lower gastrointestinal body systems. Clinical experience in a mental health facility is included as a follow-up to theory in mental health. A grade of "C" or better is required to progress to NURS 2900. Lab required. Prerequisite: NURS 1805 4 credit hours.

NURS 2900 NURSING IV

Theoretical content includes major health problems of all age groups. Theory focuses on the problems of clients with disturbances of the liver and biliary, respiratory, renal, and cardiovascular systems. More complex approaches to the nursing process encourage students to assimilate and synthesize nursing care planning. Introduces intravenous therapy concepts, skills, maintenance, and care. A grade of "C" is required to progress to NURS 2905. Lab required. Prerequisite: NURS 2400. 9 credit hours.

NURS 2905 NURSING V (CAPSTONE)

Focuses on the problems of clients with disturbances of the nervous, endocrine, and integumentary body systems, communicable diseases, and the complex problems of burns. Complex approaches to the nursing process, managing client care, and team nursing encourage students to assimilate and synthesize nursing care planning, implementation, and evaluation. Facilities used for laboratory practice include various community health agencies. Seminar sessions enable students to review professional, ethical, and legal aspects of the responsibilities of the registered nurse. To prepare the student for the graduate role, a preceptorship of clinical practice is done in a hospital setting. Each student assumes the responsibilities of the graduate nurse under the supervision of a registered nurse. A grade of "C" is required in order to graduate. Lab required. Prerequisite: NURS 2900. 9 credit hours.

O

OFAD 1200 COMPUTER KEYBOARDING

Learn the computer keyboard by touch using computer-assisted instruction. 2 credit hours.

OFAD 1201 SPEED BUILDING

Review, correct, improve, and/or perfect touch keyboarding techniques and habits for the purpose of increasing speed and improving accuracy. May be repeated for credit until desired proficiency is achieved. Prerequisite: OFAD 1200 or 1301, or high school typing/keyboarding. 2 credit hours.

OFAD 1210 RECORDS MANAGEMENT

Classifying documents using basic filing systems; selecting equipment and supplies; analysis and revision of files; survey of systems using electronics and micrographics. 2 credit hours.

OFAD 1211 PROOFREADING/EDITING

Learn proofreading and editing skills necessary to assure accuracy in written documents and business correspondence. 2 credit hours.

OFAD 1301 BEGINNING KEYBOARDING

Beginning course for students with no previous typing instruction. Develops touch keyboarding techniques; introduces skills in centering, tabulating, formatting correspondence, and formatting manuscripts. 3 credit hours.

OFAD 1302 INTERMEDIATE KEYBOARDING

Increase speed and accuracy and improve typing production rates of business correspondence, tables, forms, and reports. Prerequisite: OFAD 1301 or one year of high school typing. 3 credit hours.

OFAD 1310 MEDICAL INSURANCE CODING

Acquire skill and knowledge of medical claims coding in order to process claims for payments or benefits to meet insurance company standards (ICD-9, CPT, and others). Prerequisite: HLSC 1300. 3 credit hours.

OFAD 1315 ELECTRONIC CALCULATOR

Principles, procedures, and techniques of operating the electronic printing calculator; emphasis on speed, accuracy, memory functions, and common business math applications. 3 credit hours.

OFAD 1320 BUSINESS CORRESPONDENCE

Compose and evaluate effective business documents including letters, memos, reports, minutes, and other correspondence. Prerequisite: ENGL 1301, or OFAD 1302 or 1331. 3 credit hours.

OFAD 1325 OFFICE SUPPORT SOFTWARE

Learn office applications using administrative support software programs determined by local area business needs. See Schedule of Classes for software offered. May be repeated for credit as software changes. Prerequisite: OFAD 1301 or one year high school typing. 3 credit hours.

OFAD 1331 BEGINNING WORD PROCESSING

Basic word processing skills with emphasis on creating and revising documents using beginning level applications. Software is state-of-the-art and subject to change reflecting business demands. See Schedule of Classes for software offered. May be repeated for credit as software changes. Prerequisites: OFAD 1301 or one year of high school typing, and 35 WPM. 3 credit hours.

OFAD 1332 INTERMEDIATE WORD PROCESSING

Learn advanced features of a comprehensive word processing program using intermediate level output applications including multi-page text, document assembly (macros), merges, file/sort, and forms. Software is state-of-the-art and subject to change reflecting business demands. See Schedule of Classes for software offered each term. Prerequisites: OFAD 1302, 1331, and 50 WPM. 3 credit hours.

OFAD 2303 ADVANCED KEYBOARDING

Specialized instruction emphasizing mailable production of simulated office projects. Uses computers and interactive software for speed building to achieve individual speed and accuracy goals. Prerequisites: OFAD 1302 and 1331. 3 credit hours.

OFAD 2305 MACHINE TRANSCRIPTION

Machine transcription of letters, memos, and reports. Language, vocabulary, and proofreading skills are reviewed. Specialized content for legal and general programs. Prerequisite: OFAD 1302 or 1331. 3 credit hours.

OFAD 2306 MEDICAL TRANSCRIPTION I

Basic level transcription skills: transcribing chart notes, initial office evaluations, letters, history, physical examinations, consultations, emergency room reports, and discharge summaries using authentic physician dictation by medical specialty. Prerequisites: OFAD 1302 or 1331, and HLSC 1300. 3 credit hours.

OFAD 2307 MEDICAL TRANSCRIPTION II

Intermediate level transcription skills: transcribing all major report categories from five medical specialties. Prerequisite: OFAD 2306. 3 credit hours.

OFAD 2309 SPECIAL TOPICS IN MEDICAL TRANSCRIPTION

Selected topics in medical transcription of advanced, original medical dictation in a variety of specialized fields including cardiology, gastrointestinal, orthopedic, pathology, and radiology. Topics covered will be annotated in each semester's Schedule of Classes. May be repeated for credit as topics change. Prerequisite: OFAD 2307. 3 credit hours.

OFAD 2310 MEDICAL TRANSCRIPTION SIMULATION

Transcription of advanced, specialized, original medical dictation requiring strong proofreading and editing skills, while meeting progressively demanding accuracy and productivity standards similar to on-the-job experience. May be substituted for OFAD 7300 requirement or may be elective for enhanced preparation for medical transcription employment. Prerequisite: OFAD 2307. 3 credit hours.

OFAD 2315 OFFICE PROCEDURES

Varied aspects of office routines with emphasis on time management, mail responsibilities, telephone techniques, communication, job application/interviewing, critical thinking skills, decision making, ethics, office etiquette, and other topics associated with office technology. Prerequisite: OFAD 1302. 3 credit hours.

OFAD 2333 ADVANCED WORD PROCESSING

Advanced skills in word processing using applications and desktop publishing projects requiring critical thinking and decision-making as expected in the workplace. Prerequisites: OFAD 1302 and 1332, and 55 WPM. 3 credit hours.

OFAD 7300 COOPERATIVE EDUCATION I

Career-related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with career-related work experience. Credit is earned for completion of specific learning objectives and seminar participation. Contact the Cooperative Work Experience Office. 3 credit hours.

OFAD 7305 COOPERATIVE EDUCATION II

Continuation of supervised on-the-job experience and career-related activities. Requires new learning objectives and seminar participation. Contact the Cooperative Work Experience Office. Prerequisite: OFAD 7300. 3 credit hours.

OSHT 2401 OSHA REGULATIONS-GENERAL INDUSTRY

Formerly OSHA 2401

A study of Occupational Safety and Health Administration (OSHA) regulations pertinent to general industry. 4 credit hours.

P

PAST 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. 3 credit hours.

PHED 1100 BEGINNING WEIGHT TRAINING AND CONDITIONING

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 AND CONDITIONING

Advanced techniques in strength development and cardiovascular conditioning assists individuals in establishing their own fitness program. Prerequisite: PHED 1100 or consent of instructor. 1 credit hour.

PHED 1103 ADVANCED WEIGHT TRAINING AND CONDITIONING

Weight training program tailored to the individual who has experience in proper techniques and conditioning and wants to continue in an excelled program. Prerequisite: PHED 1102 or consent of instructor. 1 credit hour.

PHED 1104 BEGINNING JOGGING AND FITNESS

Develops cardiovascular endurance, flexibility, and strength through jogging, stretching, and weight training. Physical fitness assessment leads to development of an individual fitness program. 1 credit hour.

PHED 1105 INTERMEDIATE JOGGING AND FITNESS

An accelerated fitness program structured for further improvement in cardiovascular endurance, flexibility, and strength. Prerequisite: PHED 1104 or consent of instructor. 1 credit hour.

PHED 1106 WALKING AND FITNESS

Improve cardiovascular fitness, muscle tone, and flexibility through a vigorous walking and conditioning program. 1 credit hour.

PHED 1107 CYCLING

Introduction to cycling; learn basic techniques of bicycling and improve cardiovascular conditioning. Students are required to have their own bicycle. 1 credit hour.

PHED 1108 CROSS TRAINING I

Extensive course offering training techniques and strategies for multi-sport aerobic activities. Involves running, cycling, swimming, and weight training. Students are required to have their own bicycle. Recommended Corequisite: PHED 1109. 1 credit hour.

PHED 1109 CROSS TRAINING II

Advanced training techniques and strategies for multi-sport aerobic activities. Involves running, cycling, swimming, and weight training. Students are required to have their own bicycle. Recommended Corequisite: PHED 1108. 1 credit hour.

PHED 1111 BASKETBALL

Develops basic skills and strategies through knowledge of the history, rules, and terminology and through participation in game situations. 1 credit hour.

PHED 1112 SOCCER

Develops the basic skills and strategies through knowledge of the history, rules, and terminology and through participation in game situations. 1 credit hour.

PHED 1113 SOFTBALL

Fundamental skills of throwing, batting, fielding, and base running as well as knowledge of the rules and terminology and participation in game situations. 1 credit hour.

PHED 1114 VOLLEYBALL

Individual skills and techniques, application of rules, and an introduction to offensive and defensive strategies are stressed. 1 credit hour.

PHED 1115 ARCHERY

Investigates the basic techniques, rules, and scoring as well as the history and terminology of archery. 1 credit hour.

PHED 1116 BADMINTON

History, rules, basic strokes, and strategies in singles and doubles play are emphasized through intraclass competition. 1 credit hour.

PHED 1117 BEGINNING TENNIS

Stresses rules, scoring, and fundamental techniques for beginners. Participation by skill level for singles and doubles play is made to ensure vigorous activity for cardiovascular fitness. 1 credit hour.

PHED 1118 INTERMEDIATE TENNIS

Develops and improves each skill level in serving, forehand and backhand drives, lobs, and volleys. Performance strategies for both singles and doubles are drilled. Prerequisite: PHED 1117 or consent of instructor. 1 credit hour.

PHED 1119 ADVANCED TENNIS

Emphasizes advanced techniques and strategies for the competitive tennis player. Provides theory and practice drills for advanced players who ultimately compete in singles and doubles tournaments. Prerequisite: PHED 1118 or consent of instructor. 1 credit hour.

PHED 1120 BEGINNING RACQUETBALL

Instruction in rules and basic skills; develops the fundamental techniques of court play for beginners. Participation by skill level assures vigorous activity for cardiovascular fitness. 1 credit hour.

PHED 1121 INTERMEDIATE RACQUETBALL

Drills in serving, forehand and backhand drives, kill shots, Z shots, and lobs help develop strategies for singles and doubles play. Prerequisite: PHED 1120 or consent of instructor. 1 credit hour.

PHED 1122 ADVANCED RACQUETBALL

Advanced drills for competitive racquetball players stress techniques and strategies needed for tournament competition. Prerequisite: PHED 1121 or consent of instructor. 1 credit hour.

PHED 1123 BEGINNING GOLF

Stresses basic skills, history, terminology, and scoring of golf. 1 credit hour.

PHED 1124 INTERMEDIATE GOLF

Develops advanced skill techniques and strategies of golf. Prerequisite: PHED 1123 or consent of instructor. 1 credit hour.

PHED 1125 BOWLING

Teaches ball selection, stance, four step approach, rules, and scoring procedures. Emphasis on game situations. 1 credit hour.

PHED 1126 SELF DEFENSE

Basic understanding and practical application of fundamental self defense techniques through physical conditioning. Includes balance, focus, breath control, block and counter, avoiding attack, striking, thrusting, and kicking. 1 credit hour.

PHED 1127 BEGINNING KARATE

Introduction to basic techniques, formal exercises, and sparring techniques for the beginner. 1 credit hour.

PHED 1128 INTERMEDIATE KARATE

Intermediate skills and techniques of karate. 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. Movements close and squeeze then open and soak internal organs with blood and nourishment, leading to a deep state of rest and health. 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 lab swimming. Prerequisite: PHED 1131 or consent of instructor. 1 credit hour.

PHED 1134 LIFEGUARD TRAINING

Skills, methods, and techniques involved in lifesaving and water safety are reviewed. Successful completion leads to American Red Cross Lifesaving Certification. Prerequisite: Ability to swim 500 yards continuously using the following strokes: back, breast, crawl, and side. 1 credit hour.

PHED 1135 WATER SAFETY INSTRUCTION

Successful completion allows the student to take the standardized test given by the American Red Cross examiners for certification as a water safety instructor. Prerequisite: Current American Red Cross Senior Lifesaving Certificate. 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 1145 HORSEMANSHIP

Basic fundamentals of horsemanship; includes history, nature, and care of the horse as well as riding skills in both English and Western disciplines. 1 credit hour.

PHED 1147 BEGINNING AEROBIC KICKBOXING/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 1151 BEGINNING SCUBA

Divided into academic training and confined-water training. All equipment is supplied except mask, fins, boots, and snorkel. Students completing course requirements are eligible to perform the open water training test for Professional Association of Diving Instructors (PADI) certification as a basic scuba diver (not a course requirement). Prerequisite: Consent of discipline coordinator. 1 credit hour.

PHED 1152 ADVANCED SCUBA

This course combines advanced scuba techniques and rescue diving. Advanced topics may include underwater navigation, search and recovery, wreck diving, and night diving. Rescue diving includes diver rescue, emergency management, and diving first aid. Prerequisite: PADI open water certification (or equivalent), and permission of advanced scuba instructor. 1 credit hour.

PHED 1238 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. 2 credit hours.

PHED 1301 FOUNDATIONS OF SPORT AND PHYSICAL ACTIVITY

Historical foundations, principles, and philosophical aspects of sport and physical activity are studied. Investigates teacher qualifications, career opportunities, and leaders affecting the discipline in the United States. 3 credit hours.

PHED 1304 PERSONAL HEALTH

Acquire the knowledge to improve the quality of one's life, protect yourself from disease, and become an informed consumer. Nutrition, mental health, physical fitness, drugs, and sex education are discussed. 3 credit hours.

PHED 1306 SAFETY AND FIRST AID

Learn to recognize, evaluate, and prioritize the first aid needs of individuals in emergency situations. Lectures, demonstrations, and practical experience provide qualified students with American Red Cross certification. 3 credit hours.

PHED 1308 SPORTS OFFICIATING

Knowledge and practice in officiating volleyball, basketball, and other appropriate sports. Students are expected to officiate tournaments and intramural games. Lab required. 3 credit hours.

PHED 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 LOGIC

Symbolic and informal logic; emphasis on logical argument, fallacies, inductive and deductive proof, and correct reasoning. 3 credit hours.

PHIL 2306 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 2371 PHILOSOPHY OF ART/AESTHETICS

Explores the place of art in human life, the transcendent nature of beauty, and the nature of artistic production. Discusses the work of art itself as a product of creativity, imagination, and understanding. 3 credit hours.

PHIL 2377 APPLIED ETHICS AND BUSINESS

Understanding of classical ethical theories and their practical relevance within the American corporate environment. Explores ethical behavior across various disciplines using case studies applicable to the North Texas business community. Provides concepts that are beneficial to all types of business decisions. 3 credit hours.

PHYS 1401 GENERAL PHYSICS I

Algebra-based physics course for the science major in areas of biology, medicine, and pharmacy. Includes laws of motion, heat, work and energy, and sound. Lab required. Prerequisite: Two years of high school algebra and trigonometry, or equivalent, recommended. 4 credit hours.

PHYS 1402 GENERAL PHYSICS II

A continuation of Physics 1401. Includes electricity, magnetism, light, optics, relativity, and atomic physics. Lab required. Prerequisite: PHYS 1401. 4 credit hours.

PHYS 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. Every class is a hands-on investigation 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 2425 UNIVERSITY PHYSICS I

A calculus-based analysis of classical physics for science majors in fields such as physics, computer science, and engineering. Includes laws of motion, force, momentum, work and energy, angular momentum, and rotational and oscillatory motion. Lab required. Prerequisite: MATH 2413; Corequisite: MATH 2414. 4 credit hours.

PHYS 2426 UNIVERSITY PHYSICS II

Addresses electric fields, AC and DC currents, dielectrics, magnetic fields, magnetic properties of matter, inductance, electromagnetism, properties of waves, and optics. Lab required. Prerequisite: PHYS 2425. 4 credit hours.

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.

PSYC 2301 GENERAL PSYCHOLOGY

Introduction to scientific psychology as applied to human behavior, including research methods, physiological factors, learning, motivation, emotions, personality, adjustment, stress, psychological disorders, and therapies. These principles will be applied to the human experience. Lab required. 3 credit hours.

PSYC 2302 APPLIED PSYCHOLOGY

Application of psychological principles to human relations issues in organizational settings. Emphasis on self-understanding, inter-personal relations, and career development. Lab required. 3 credit hours.

PSYC 2306 HUMAN SEXUALITY

Understanding of human sexuality; includes an appreciation of different approaches to sexuality as well as an awareness of one's own sexuality and its impact on adjustment to life. 3 credit hours.

NOTE: 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 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 2370 DRUG USE AND ABUSE

A view of the individual, the substance, and the cultural context in which they interact. Provides a basic understanding of the psychopharmacology of drugs used and abused in today's society. Emphasis on the major perspectives of drug use including legal, moral, public health, disease model, psycho-social, and socio-cultural. 3 credit hours.

PSYC 2371 SELECTED TOPICS IN PSYCHOLOGY

In-depth study of selected topics on current issues in psychology. May be repeated for credit as topics change. 3 credit hours.

Abnormal Psychology

Study of abnormal behavior with focus on the causes, assessment, and treatment of maladaptive behavior. Emphasizes contemporary views regarding the nature of mental disorders. Prerequisite: PSYC 2301.

Individual Counseling

Introduction to interviewing, history-taking, care-giving, listening, intervention, and interpretation skills. Includes experience under supervision. Prerequisite: PSYC 2301 or SOCI 1301.

Death and Dying

Explores social, emotional, and cognitive processes involved in our understanding and acceptance of death and dying from a cross-cultural perspective.

NOTE: May register for this course as PSYC 2371 or SOCI 2371, but not for both.

Survey of Eating Disorders

Studies the history, dynamics, prevalence, symptoms, and treatment approaches to eating disorders. Examines biological, psychoanalytic, behavioral, cognitive, and other theoretical perspectives.

PSYC 2389 ACADEMIC CO-OP PSYCHOLOGY

Integrates on-campus study with practical hands-on work experience in psychology. In conjunction with class seminars, the student will set specific goals and objectives in the study of psychology. Contact the Cooperative Work Experience Office. 3 credit hours.

PTHA 1201 THE PROFESSION OF PHYSICAL THERAPY

Formerly PTAS 1201

Introduction to the profession of physical therapy including the historical and current scope of physical therapy. Prerequisite: Admission to program or departmental approval. 2 credit hours.

PTHA 1266 PRACTICUM I - PTA

Formerly PTAS 2201

Practical general training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be paid or unpaid. This course may be repeated if topics and learning outcomes vary. Lab required. Prerequisites: PTHA 1431, 2201, 2205, and 2409. 2 credit hours.

PTHA 1321 CLINICAL PATHOPHYSIOLOGY

Formerly PTAS 1301

Study of the pathogenesis, prognosis, and therapeutic management of diseases/conditions commonly encountered in physical therapy. Prerequisites: Admission to program, and BIOL 2401 and 2402; Corequisite: PTHA 1201. 3 credit hours.

PTHA 1305 BASIC PATIENT CARE SKILLS

Formerly PTAS 1402

Introduction to the theory and application of basic patient handling/functional skills and assessment and measurement techniques. Lab required. Prerequisite: Admission to the program or departmental approval. 3 credit hours.

PTHA 1413 FUNCTIONAL ANATOMY

Formerly PTAS 1403

Study of human anatomy and its application to the motion of the musculoskeletal system as it relates to normal activities and dysfunctions. Integration of skills related to the kinesiological assessment and measurement of the human body. Lab required. Prerequisites: BIOL 2401 and/or 2402 or equivalent, or departmental approval. 4 credit hours.

PTHA 1431 PHYSICAL AGENTS

Formerly PTAS 1404

Study of the biophysical principles, assessment, and application of therapeutic physical agents and therapeutic massage with specific emphasis on indications, contraindications, medical efficacy, and physiological effects. Lab required. Prerequisites: Admission to the program or departmental approval. 4 credit hours.

PTHA 2201 ASSESSMENT AND MEASUREMENT SKILLS

Study of assessment and measurement techniques used in physical therapy to assist the physical therapist in patient management. Lab required. Prerequisites: BIOL 2401 and/or 2402 or equivalent, or departmental approval. 2 credit hours.

PTHA 2202 PROFESSIONAL ISSUES (CAPSTONE)

Formerly PTAS 2102

A capstone course which integrates the student in the discussion of professional issues and behaviors related to clinical practice and prepares the student for transition into the workforce. Prerequisites: Admission to the program or departmental approval. 2 credit hours.

PTHA 2205 CLINICAL NEUROLOGY

Formerly PTAS 1302

Study of neuroanatomy and neurophysiology as it relates to commonly encountered neurological conditions. Prerequisites: PTHA 1321. 2 credit hours.

PTHA 2266 PRACTICUM II - PTA

Formerly PTAS 2202

Practical general training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be paid or unpaid. This course may be repeated if topics and learning outcomes vary. Lab required. Prerequisites: PTHA 2431 and 2434; Corequisite: PTHA 2201. 2 credit hours.

PTHA 2267 PRACTICUM III - PTA

Formerly PTAS 2203

Practical general training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be paid or unpaid. This course may be repeated if topics and learning outcomes vary. Lab required. Prerequisites: PTHA 2201, 2266, 2431, and 2434. 2 credit hours.

PTHA 2409 THERAPEUTIC EXERCISE

Formerly PTAS 2402

Critical examination of concepts and application of techniques related to therapeutic exercise and functional training. Lab required. Prerequisites: BIOL 2401 and/or 2402 or equivalent, or departmental approval. 4 credit hours.

PTHA 2431 MANAGEMENT OF NEUROLOGICAL DISORDERS

Advanced course integrating previously learned and new skills/techniques into the comprehensive rehabilitation of selected neurological disorders. Lab required. Prerequisites: BIOL 2401 and/or 2402 or equivalent, or departmental approval. 4 credit hours.

PTHA 2435 REHABILITATION TECHNIQUES

Formerly PTAS 2403

Advanced course integrating previously learned and new skills/techniques into the comprehensive rehabilitation of selected long-term pathologies. Lab required. Prerequisites: BIOL 2401 and/or 2402 or equivalent, or departmental approval. 4 credit hours.

Q

QCTC 1303 QUALITY CONTROL

Formerly BUSI 2371

Information on quality control principles and applications. Designed to introduce the student to the quality control profession. 3 credit hours.

R

READ 0300 DEVELOPMENTAL READING I

Raises the reading level of students through the acquisition of basic vocabulary and comprehension skills. Lab included. May not be used to satisfy the requirements of an associate degree. Prerequisite: Assessment. 3 credit hours.

READ 0305 DEVELOPMENTAL READING II

Offers additional instruction in developing vocabulary and comprehension skills. Effective study skills are introduced. Lab included. May not be used to satisfy the requirements of an associate degree. Prerequisite: READ 0300 or assessment. 3 hours credit.

READ 0310 DEVELOPMENTAL READING III

Seeks to further improve students' vocabulary, comprehension, and study skills. Lab included. May not be used to satisfy the requirements of an associate degree. Prerequisite: READ 0305 or assessment. 3 credit hours.

READ 1300 ANALYTICAL READING AND CRITICAL THINKING

Inquiry to improve comprehension in non-fiction material. Emphasizes development of interpretive comprehension skills and expansion of these skills into higher level analysis, synthesis, and evaluative processes. Lab included. Prerequisite: Assessment. 3 credit hours.

RELE 1105 UNIFORM STANDARDS OF PROFESSIONAL APPRAISAL PRACTICE

Formerly RLST 2104

Provides instruction on current provisions of the Uniform Standards of Professional Appraisal Practice (USPAP). 1 credit hour.

RELE 1301 PRINCIPLES OF REAL ESTATE

Formerly RLST 1301

An overview of licensing as a real estate broker and salesperson, ethics of practice, titles to and conveyancing of real estate, legal descriptions, law of agency, deeds, encumbrances and liens, distinctions between personal and real property, contracts, appraisal, finance and regulations, closing procedures, and real estate mathematics. Also includes federal, state, and local laws relating to housing discrimination, housing credit discrimination, and community reinvestment. 3 credit hours.

RELE 1303 REAL ESTATE APPRAISAL

Formerly RLST 1310

A study of the central purposes and functions of an appraisal, social and economic determinant of value, appraisal case studies, cost, market data and income approaches to value estimates, final correlations, and reporting. 3 credit hours

RELE 1307 REAL ESTATE INVESTMENT

Formerly RLST 2305

Financing, evaluation, and management of real estate investment. Emphasis on real estate investment characteristics, techniques of investment analysis, time-valued money, discounted investment criteria, leverage, and applications to property tax implications of owning real estate. 3 credit hours.

RELE 1309 REAL ESTATE LAW

Formerly RLST 2320

Provides a study of legal concepts of real estate, land description, real property rights, estates in land, contracts, conveyances, encumbrances, foreclosures, recording procedures, and evidence of title. 3 credit hours.

RELE 1311 REAL ESTATE LAW OF CONTRACTS

Formerly RLST 1301

Includes the elements of a contract, offer and acceptance, the statute of frauds, specific performance and remedies for breach, unauthorized practice of law, commission rules relating to use of adopted forms and owner disclosure requirements. 3 credit hours.

RELE 1315 PROPERTY MANAGEMENT

Formerly RLST 2315

A study of the role of the property manager, landlord policies, operational guidelines, leases, lease negotiations, tenant relations, maintenance, reports, habitability laws, and the Fair Housing Act. 3 credit hours.

RELE 1319 REAL ESTATE FINANCE

Formerly RLST 2310

An overview of the U.S. monetary systems, primary and secondary money markets, sources of mortgage loans, federal government programs, loan applications, processes and procedures, closing costs, alternative instruments, laws affecting mortgage lending, and the State Housing Agency. 3 credit hours

RELE 1321 REAL ESTATE MARKETING

Formerly RLST 1320

A study of real estate professionalism and ethics; characteristics of successful salespersons; time management; psychology of marketing; listing procedures; advertising; negotiating and closing financing; and the deceptive trade practice act, consumer protection act, and commercial code. 3 credit hours

RELE 1325 REAL ESTATE MATHEMATICS

Formerly RLST 1305

Mathematical logic and basic arithmetic skills including percentages interest, time-valued money, depreciation, amortization, proration, and estimation of closing statement. 3 credit hours.

RELE 1327 REAL ESTATE COMMERCIAL APPRAISAL

Formerly RLST 2325

Principles and techniques used in the valuation of commercial property. Topics include purposes and functions of an appraisal, social and economic forces affecting value, appraisal case studies, cost, and income approaches to value. 3 credit hours.

RELE 1380 COOPERATIVE EDUCATION-REAL ESTATE

Formerly RLST 7300

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

RELE 1391 SPECIAL TOPICS IN REAL ESTATE

Formerly RLST 2302

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. 3 credit hours.

RELE 2103 REAL ESTATE MANDATORY CONTINUING EDUCATION

Formerly RLST 2101

Provides mandatory continuing education as required by the Texas Real Estate Commission. Includes updates on the profession and legal topics. 1 credit hour.

RELE 2301 LAW OF AGENCY

Formerly RLST 1303

A study of law of agency including principal-agent and master-servant relationships, the authority of an agent, the termination of an agent's authority, the fiduciary and other duties of an agent, employment law, deceptive trade practices, listing or buying procedures, and the disclosure of an agency. 3 credit hours.

RELE 2309 PRINCIPLES OF REAL ESTATE II

Formerly RLST 1302

An overview of licensing as a real estate broker and salesman; ethics of practice; titles to and conveyancing of real estate; legal descriptions; law of agency; deeds; encumbrances and liens; distinctions between personal and real property; contracts; appraisal; finance and regulations; closing procedures; real estate mathematics; and federal, state, and local laws relating to housing discrimination, housing credit discrimination, and community reinvestment. 3 credit hours.

RELE 2331 REAL ESTATE BROKERAGE

Formerly RLST 2335

A study of law of agency, planning and organization, operational policies and procedures, recruiting, selection and training of personnel, records and control, and real estate firm analysis and expansion criteria. 3 credit hours.

RELE 2381 COOPERATIVE EDUCATION-REAL ESTATE

Formerly RLST 7305

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

RSTR 1380 COOPERATIVE EDUCATION -FOOD AND BEVERAGE OPERATIONS MANAGER (CAPSTONE)

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

RSTR 2405 MANAGEMENT OF FOOD PRODUCTION AND SERVICE

A study of quantity cookery and management problems pertaining to commercial and institutional food service, merchandising and variety in menu planning, and customer food preferences. Includes laboratory experiences in quantity food preparation and service. 4 credit hours.

RTTP 1205 RESPIRATORY PHARMACOLOGY

Provides a working knowledge of basic drugs used by the therapist for respiratory care patients. Prerequisite: RTTP 1300, 1400, and 1500; Corequisites: RTTP 1310, 1315, and 1405. 2 credit hours.

RTTP 1300 RESPIRATORY CARE SCIENCE

Includes a detailed review of the anatomy and physiology of the cardiopulmonary system and discusses the application of chemistry, physics, and microbiology in respiratory care. Lab required. Corequisites: RTTP 1400 and 1500. 3 credit hours.

RTTP 1310 RESPIRATORY CLINICAL PRACTICE II

Provides practical experience in those skills acquired in RTTP 1500. Prerequisite: RTTP 1500; Corequisites: RTTP 1205, 1315, and 1405. 3 credit hours.

RTTP 1315 RESPIRATORY DISEASE

Builds on a basic understanding of physical assessment, the disease process as it is related to the cardiopulmonary system, and proper recognition of the signs and symptoms of the disease and the recommend treatment. Includes a presentation of pulmonary function testing. Prerequisite: RTTP 1500; Corequisites: RTTP 1205 and 1405. 3 credit hours.

RTTP 1320 RESPIRATORY CLINICAL PRACTICE III

Provides opportunities to apply skills acquired in RTTP 1310 along with the following new skills: basic pulmonary function testing, arterial-blood gas procurement, and critical care. Prerequisite: RTTP 1310; Corequisite: RTTP 1410. 3 credit hours.

RTTP 1400 FUNDAMENTALS OF RESPIRATORY CARE I

Develops a safe working knowledge of the function, usage, and troubleshooting of fundamental respiratory care equipment. Lab required. Corequisites: RTTP 1300 and 1500, and BIOL 2401. 4 credit hours.

RTTP 1405 FUNDAMENTALS OF RESPIRATORY CARE II

Focuses on critical care, including airway care and classification and application of mechanical ventilators. Lab required. Prerequisite: RTTP 1400; Corequisites: RTTP 1310 and 1315, and BIOL 2402. 4 credit hours.

RTTP 1410 FUNDAMENTALS OF RESPIRATORY CARE III

Includes continuation of mechanical ventilation, respiratory disease, and introductory neonatal and pediatric respiratory care. Lab required. Prerequisite: RTTP 1405; Corequisite: RTTP 1320. 4 credit hours.

RTTP 1500 RESPIRATORY CLINICAL PRACTICE I

Students apply skills in a clinical setting that they learned in didactics and practiced in the laboratory. Lab required. Corequisite: RTTP 1300 and 1400. 5 credit hours.

RTTP 2110 CLINICAL SIMULATION

Utilizes both latent image and computerized clinical simulations to review the application of respiratory care. Primary emphasis on improvement of information gathering and decision-making skills. Prerequisite: RTTP 2310; Corequisites: RTTP 2340 and 2350. Lab required. 1 credit hour.

RTTP 2310 PERINATAL RESPIRATORY CARE

Continues neonatal and pediatric respiratory care; includes neonatal and pediatric respiratory disease, assessment techniques, and mechanical ventilation. Prerequisite: RTTP 1410; Corequisites: RTTP 2320 and 2330. 3 credit hours.

RTTP 2320 ADVANCED RESPIRATORY CARE

Includes advanced assessment techniques, CXR evaluation, capnography, pressure, flow, and volume curves. Special procedures including chest tubes, thorocentesis, and bronchoscopy. Also includes advanced pulmonary function testing. Lab required. Prerequisite: RTTP 1410; Corequisites: RTTP 2310 and 2330. 3 credit hours.

RTTP 2330 RESPIRATORY CLINICAL PRACTICE IV

Application of advanced respiratory techniques including advanced critical care, roentgenographic patterns of respiratory disease, neonatal care, and post-operative care of the cardiopulmonary patient. Prerequisite: RTTP 1320; Corequisites: RTTP 2310 and 2320. 3 credit hours.

RTTP 2340 RESPIRATORY CLINICAL PRACTICE V (CAPSTONE)

Final course of the clinical experience to prepare the student to perform as an advanced respiratory care practitioner. Prerequisite: RTTP 2330; Corequisites: RTTP 2110 and 2350. 3 credit hours.

RTTP 2350 ADVANCED PATIENT ASSESSMENT

Includes a detailed review of advanced patient assessment, including hemodynamic monitoring, ECG interpretation, and fluid and electrolyte interpretation. Lab required. Prerequisite: RTTP 2320; Corequisites: RTTP 2110 and 2340. 3 credit hours.

RUSS 1411 BEGINNING RUSSIAN I

Introduction to the basic skills of speaking, reading, writing, and listening with attention to selected aspects of Russian culture; designed for students with little or no previous language training. Instruction is enhanced by the use of tapes, slides, computer software, and video cassettes. 4 credit hours.

RUSS 1412 BEGINNING RUSSIAN II

Continuation of Russian 1411. Prerequisite: RUSS 1411 or equivalent. 4 credit hours.

RUSS 2311 INTERMEDIATE RUSSIAN I

Intensive review of Russian grammar followed by continued development of speaking, listening, reading, and writing skills. Instruction enhanced by slides, tapes, and other audio-visual aids. Prerequisite: RUSS 1412 or equivalent. 3 credit hours.

RUSS 2312 INTERMEDIATE RUSSIAN II

Continuation of RUSS 2311. Instruction enhanced by slides, tapes, and other audio-visual aids. Prerequisite: RUSS 2311 or equivalent. 3 credit hours.

S

SGNL 1401 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.

NOTE: May register for this course as either SGNL 1401 (foreign language) or IPPD 1404, but not for both.

SGNL 1402 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 IPPD 1404, or credit by exam. 4 credit hours.

NOTE: May register for this course as either SGNL 1402 (foreign language) or IPPD 1405, but not for both.

SGNL 2401 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 IPPD 1405, or credit by exam. 4 credit hours.

NOTE: May register for this course as either SGNL 2401 (foreign language) or IPPD 1444, but not for both.

SGNL 2402 ASL: INTERMEDIATE II

Continuation of SGNL 2401; further application of introductory level interpreting and transliterating skills with appropriate RID guidelines governing ethical behavior. Provides students the opportunity to interpret for guest speakers. Class is conducted primarily without voice. Lab required. Prerequisite: SGNL 2401 or IPPD 1444, or credit by exam. 4 credit hours.

NOTE: May register for this course as either SGNL 2402 (foreign language) or IPPD 1445, but not for both.

SMFT 1343 SEMICONDUCTOR MANUFACTURING TECHNOLOGY I

Formerly SEMI 1370

A study of the processes, materials, and equipment used in the manufacturing of semiconductors, including an overview of the semiconductor industry, related terminology, and standard safety practice. Lab required. 3 credit hours.

SMFT 2343 SEMICONDUCTOR MANUFACTURING TECHNOLOGY II

Formerly SEMI 2370

The continuation of Semiconductor Manufacturing Technology I covering the processes, materials, and equipment used in the manufacturing of semiconductors. Topics address process-yield analysis and process troubleshooting. Lab required. Prerequisite: SMFT 1343. 3 credit hours.

SOCI 1301 INTRODUCTION TO SOCIOLOGY

Introduction to the scientific study of social factors that influence human behavior. Includes analysis of 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 2371 SELECTED TOPICS IN SOCIOLOGY

In-depth study of selected topics on current issues in sociology. May be repeated for credit as topics change. 3 credit hours.

Belize: A Case Study of Social Change

Study of social change in ancient and present day cultures, applying sociological and anthropological theory and fieldwork techniques. Students live in Creole, Mayan, and Garifuna villages. International field trip required.

The Social Psychology of Death and Dying

Explores social, emotional, and cognitive processes involved in our understanding and acceptance of death and dying from a cross-cultural perspective.

NOTE: May register for this course as SOCI 2371 or PSYC 2371, but not for both.

Third World Development

Study of social change in third world cultures, applying sociological and anthropological theory and fieldwork techniques. Students live in Creole, Mayan, and Garifuna villages. International field trip required.

Women, Men, and Society

Examines the social, political, and economic effects of gender roles on the lives of men and women. Focus on sociological theory and research as well as personal experience in the subject of gender.

SOCI 2389 ACADEMIC CO-OP SOCIOLOGY

Integrates on-campus study with practical hands-on work experience in sociology. In conjunction with class seminars, the student will set specific goals and objectives in the study of sociology. Contact the Cooperative Work Experience Office. 3 credit hours.

SPAN 1300 CONVERSATIONAL SPANISH I

Intensive practice in conversational Spanish. Prerequisite: SPAN 1412 or consent of discipline coordinator. 3 credit hours.

SPAN 1310 CONVERSATIONAL SPANISH II

Continuation of SPAN 1300. Prerequisite: SPAN 1300 or consent of discipline coordinator. 3 credit hours.

SPAN 1411 BEGINNING SPANISH I

Introduction to the four basic skills of speaking, reading, writing, and listening to Spanish with attention to selected aspects of Hispanic culture; designed for students with little or no previous language training. Instruction enhanced by the use of slides, tapes, computer software, and video cassettes. 4 credit hours.

SPAN 1412 BEGINNING SPANISH II

Continuation of Spanish 1411. Prerequisite: SPAN 1411 or consent of discipline 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 discipline 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 discipline coordinator. 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 discipline 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 discipline coordinator. 3 credit hours.

SPCH 1144 FORENSICS WORKSHOP

Preparation and practice in debate and contest-speaking activities, participation in intercollegiate and inter-squad forensics activities, involvement in supervised research, and development of specialized contest-speaking skills. May be repeated for credit. Prerequisite: SPCH 1315 or consent of instructor. 1 credit hour.

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 1318 INTERPERSONAL COMMUNICATION

Study of verbal and nonverbal communication as it relates to human relationships. Emphasis on interpersonal contexts such as gender communication, familial relationships, and intercultural communication. 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 1371 PUBLIC SPEAKING II

Advanced skills and techniques of speaking. Includes impromptu and extemporaneous speaking, congressional speaking and the use of parliamentary procedure, and speaking before large audiences. Prerequisite: SPCH 1315 or consent of instructor. 3 credit hours.

SPCH 2341 ORAL INTERPRETATION

Introduction to the techniques of interpretation; preparation, analysis, and reading of poetry, prose, and dramatic literature; analysis and criticism of a variety of literary forms. Prerequisite: SPCH 1315 or consent of instructor. 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.

T

TRVM 1300 INTRODUCTION TO TRAVEL AND TOURISM

Formerly TRTM 1300

An overview of the travel industry. Emphasis on travel careers and the impact on society. 3 credit hours.

TRVM 1327 HOSPITALITY AND SPECIAL EVENTS

Formerly TRTM 1327

Focus on planning and managing special events in the meeting planning arena. An overview of the entire sequence of events, from conceptual stage of the first meeting through completion of the event. Emphasis on technical planning skills including site selection, negotiating with suppliers, devising meeting specifications, preparing a budget, and working with facility staff to manage a successful event. 3 credit hours.

TRVM 1345 TRAVEL AND TOURISM SALES AND MARKETING TECHNIQUES

Formerly TRTM 1345

A study of marketing, sales techniques, promotions and advertising theories as applied to the travel and tourism industry. Coverage of the marketing mix in travel, market segmentation, market planning, and the use of advertising and other communications techniques. Emphasis on buyer motivation, telephone sales techniques, profitable travel counseling, and the use of promotional material in selling travel. 3 credit hours.

TRVM 1349 TRAVEL OPERATIONS I

Formerly TRTM 1349

A study of manual travel agency operations and basic hands-on computerized reservations techniques in manual travel agency operations; emphasis on making air, hotel, tour, and cruise reservations, writing itineraries, reading and interpreting brochures, and ticketing rules, credit card sales, ticket refunds, exchanges and reissues. Topics include building a simple Passenger Name Record in an airplane computer reservation system, accessing availability, fares and miscellaneous related information. 3 credit hours.

TRVM 1380 COOPERATIVE EDUCATION-TRAVEL AND TOURISM

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

TRVM 1391 SPECIAL TOPICS IN TRAVEL AND TOURISM

Formerly TRTM 1391

Topics address recently identified current events, skills, knowledge and/or attitude and behavior pertinent to the technology or occupation and relevant to the professional development of the student. 3 credit hours

TRVM 2381 COOPERATIVE EDUCATION-TRAVEL AND TOURISM (CAPSTONE)

Formerly TRTM 2381

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Contact the Cooperative Work Experience Office. 3 credit hours.

TRVM 2437 TRAVEL INDUSTRY OPERATIONS II

Formerly TRTM 2437

The study of airline computer reservation systems. Emphasis on reserving cars and hotels, using queues, creating passenger profiles, interpreting air fares, rules and routing and explaining these to a passenger. 3 credit hours.



DIRECTORY

TRUSTEES

Carey Cox, Chairman	McKinney
Sam Roach, Vice Chair	Frisco
Tino Trujillo, Secretary	Plano
E.T. Boon, Treasurer	Allen
Cindy Bauge	Plano
Bob Collins	Farmersville
Gary Harris	Celina
Glenn Justice	Parker
Margaret Reynolds	Plano

EXECUTIVE STAFF

Anthony, John H.

President
 Ed.D., Temple University
 M.Ed., Temple University
 B.S., Susquehanna University
 Office: CYC/B431, 972.758.3801
 E-mail: janthony@ccccd.edu

Ellis, Martha

Provost, Spring Creek Campus
 Professor, Psychology
 Ph.D., University of North Texas
 M.S., University of Texas at Dallas
 B.A., American Christian College
 Office: SCC/G228, 972.881.5797
 E-mail: mellis@ccccd.edu

Ellis, Steve E.

Vice President for Instruction
 Ph.D., University of North Texas
 M.A., University of North Texas
 B.A., University of North Texas
 Office: CYC/B331, 972.758.3812
 E-mail: sellis@ccccd.edu

Hall, Ralph G.

Vice President of Administrative Services
 B.B.A., Southeastern Oklahoma State University
 Office: CYC/A431, 972.758.3831
 E-mail: rhall@ccccd.edu

Martin, Thomas

Associate Vice President for Research and Institutional Effectiveness
 Ph.D., Brigham Young
 M.A., Brigham Young
 B.A., Brigham Young
 Office: CYC/B438, 972.985.3817
 E-mail: tmartin@ccccd.edu

McRae, Mary S.

Vice President of Student Development
 Ph.D., University of North Texas
 M.S., Drake University
 B.A., Central Michigan University
 Office: SCC/G233, 972.881.5771
 E-mail: mmcrae@ccccd.edu

Newman, Belinda

Provost, Central Park Campus
 Ph.D., Texas A&M University
 M.Ed., Texas A&M University
 B.S., Texas A&M University
 Office: CPC/A302, 972.548.6800
 E-mail: bnewman@ccccd.edu

Rodgers, J. Tom

Provost, Preston Ridge Campus
 Ph.D., George Peabody College for Teachers/Vanderbilt University
 M.S., East Texas State University
 B.S., University of Texas
 Office: PRC/F132, 972.377.1551
 E-mail: trodgers@ccccd.edu

ADMINISTRATORS

Abbott-White, Jessie

Director of Operating Systems
 B.S., University of North Texas
 Office: CPC/A122, 972.548.6646
 E-mail: jabbott@ccccd.edu

Ammons, Shane

Director of Academic Computing
 B.B.A., Howard Payne University
 Office: CPC/B222, 972.548.6899
 E-mail: sammons@ccccd.edu

Bell, Michael

Dean of the Learning Resources Center
Ph.D., University of North Texas
M.Ed., University of Texas
B.A., University of Texas at Arlington
Office: SCC/D123, 972.881.5831
E-mail: mdbell@cccdd.edu

Boring, Brian

Director of Telecommunications
B.A., University of North Texas
Office: CPC/A211, 972.548.6644
E-mail: bboring@cccdd.edu

Burgett, Carolyn, CPA

Internal Auditor
B.B.A., Tarleton State University
Office: CPC/A222, 972.548.6629
E-mail: cburgett@cccdd.edu

Collins, Billie K.

Director of Articulation and Transfer Programs
B.S., Texas Woman's University
Office: SCC/G229, 972.881.5758
E-mail: bcollins@cccdd.edu

Cothran, Anita

Director of Accounting and Financial Reporting
B.S., University of Texas at Dallas
Office: CYC/A430, 972.758.3821
E-mail: acothran@cccdd.edu

Curtis, Margie

Manager of Special Projects
M.Ed., Texas A&M University
B.S., Texas A&M University
Office: CPC/A221, 972.548.6767
E-mail: mcurtis@cccdd.edu

Erickson, Craig

Technical Director of Theatre
B.F.A., University of Texas
Office: SCC/C134, 972.881.5805
E-mail: cerickson@cccdd.edu

Farr, Kent

Director of Administrative Programming
B.B.A., University of Oklahoma
Office: CPC/A225, 972.548.6643
E-mail: kfarr@cccdd.edu

Farrell, Karen

Director of SCC Learning Resources Center
M.L.S., University of North Texas
B.A., University of Texas at Arlington
Office: SCC/D117, 972.881.5730
E-mail: kfarrell@cccdd.edu

Ford, Margo

Director of Business and Community Relations
M.A., University of Texas at El Paso
B.A., University of Texas at El Paso
Office: CYC/A324, 972.985.3734
E-mail: mford@cccdd.edu

Gober, Lydia

Assistant Director of Career Services and Cooperative Work Experience
M.A., Northern Illinois University
B.A., Northern Illinois University
Office: SCC/G103, 972.881.5733
E-mail: lgober@cccdd.edu

Hardy, Steve

Dean of Continuing Education
M.B.A., Baylor University
B.A., Baylor University
Office: CYC/A346, 972.985.3751
E-mail: shardy@cccdd.edu

Haroutunian, Barbara

Manager of Benefits and Employee Relations
B.A., Michigan State University
Office: CPC/B304, 972.548.6663
E-mail: bharoutunian@cccdd.edu

Hoyt, David

Chief Information Systems Officer
B.S., New Mexico State University
Office: CPC/A306, 972.548.6641
E-mail: dhoyt@cccdd.edu

Hurley, Cathy

Director of Diversity and Entrepreneurship Training
J.D., Texas Wesleyan School of Law
B.A., Baylor University
Office: CYC/A314, 972.985.3737
E-mail: churley@cccdd.edu

Jack, Cheri A.

Director of Student Activities
M.S., University of Wisconsin-Madison
B.S., University of Wisconsin-Stevens Point
Office: CPC/D111, 972.548.6785
E-mail: cjack@cccdd.edu

Jackson, Ron

Director of Plant Operations
Office: SCC/K028, 972.881.5698
E-mail: rjackson@cccdd.edu

Jaworski, Janet

Director of Global EDGE
Ed.D., Nova Southeastern University
M.A., Kean College
B.A., Newark State College
Office: CPC/A114, 972.548.6724
E-mail: jjaworski@cccdd.edu

Jenkins, Toni P.

Assistant to the President
Ed.D., Texas A&M University at Commerce
M.S., University of North Texas
B.S., Arizona State University
Office: CYC/B433, 972.985.3892
E-mail: tjenkins@cccdd.edu

Johnson, Norma

Director of Academic Advising
M.A., Texas Woman's University
B.S., Southern University
Office: SCC/G108, 972.881.5847
E-mail: njohnson@cccdd.edu

Kaczka, Shirley

Compensation and Training Manager
M.L.A., Southern Methodist University
B.B.A., University of Arkansas
Office: SCC/F103, 972.881.5662
E-mail: skaczka@cccdd.edu

Langford, Mark

Director of the Small Business Development Center
B.B.A., Texas Tech University
Office: CYC/A128, 972.985.3771
E-mail: mlangford@cccdd.edu

Ledford, Steve

Director of Auxiliary Services
Office: SCC/E0063, 972.881.5684
E-mail: sledford@cccdd.edu

Love, Pam

Assistant Director of Career Services and Cooperative Work Experience
M.S., Texas A&M University at Commerce
B.A., University of Texas of Dallas
Office: SCC/G104, 972.881.5775
E-mail: plove@cccdd.edu

Lyons, Michael

Counselor
M.A., Texas Woman's University
B.F.A., Texas Woman's University
Office: CPC/B123, 972.548.6615
E-mail: mlyons@cccdd.edu

McAuliff, Patrick

Director, Fire Science Academy
B.S., Texas A&M University
Office: CPC/A219, 972.548.6837
E-mail: pmcauliff@cccdd.edu

Meinhardt, Stephanie

Registrar/Director of Admissions
M.Ed., East Texas State University
B.S., East Texas State University
A.S., El Centro Community College
Office: SCC/G112, 972.881.5174
E-mail: smeinhardt@cccdd.edu

Money, Barbara A.

Director of Career Services and Cooperative Work Experience
M.Ed., University of Arizona
B.S., Langston University
Office: SCC/G231, 972.881.5772
E-mail: bmoney@cccdd.edu

Mullin, John

Director of PRC Learning Resources Center
M.L.S., University of Texas
B.A., University of Iowa
Office: PRC/F121, 972.377.1575
E-mail: jmullin@cccdd.edu

Newsom, Victoria

Assistant Director of Development
M.Ed., Baylor University
B.S., Northwestern State University
Office: CPC/B216, 972.548.6612
E-mail: vnewsom@cccdd.edu

Nilsen, Walter

Director of Facilities Planning and Construction
B.M.Ed., University of Colorado
Office: CYC/B431, 972.985.3804
E-mail: wnilsen@ccccd.edu

Parker, Rita

Manager, Plant Operations
A.A.S., Texas State Technical Institute
Office: PRC/Alumni Hall,
972.377.1691
E-mail: rparker@ccccd.edu

Parrish, Percy

Director of Financial Aid/Veterans Affairs
M.S., Tuskegee University
B.S., Tuskegee University
Office: SCC/G103, 972.881.5761
E-mail: pparrish@ccccd.edu

Porter, M. Beth

Director, Math Lab
M.S., Emory University
B.S., University of North Texas
Office: SCC/J231, 972.881.5947
E-mail: bporter@ccccd.edu

Qualia, Linda

Director of Counseling
Licensed Professional Counselor
Ph.D., North Texas State University
M.A., University of Alabama
B.A., Rhodes College
Office: SCC/G201, 972.881.5779
E-mail: lqualia@ccccd.edu

Roman, Paula

Director of Development and Executive Director of the CCCCD Foundation, Inc.
M.S., University of Texas
B.S., University of Texas
Office: CPC/B216A, 972.548.6609
E-mail: proman@ccccd.edu

Rose, Karen

Program Director, Continuing Education
M.S., Central Oklahoma State University
B.A., University of Oklahoma
Office: CYC/A342, 972.985.3753
E-mail: krose@ccccd.edu

Russell, Kimberly K.

Director of Human Resources
M.S., University of North Texas
B.S., Baylor University
Office: CYC/B305, 972.985.3781
E-mail: krussell@ccccd.edu

Scott, Fritzeen, CPM

Director of Purchasing
Administrative Services
Office: CYC/A476, 972.758.3871
E-mail: fscott@ccccd.edu

Sheppard, Janet

Director, Computer Education Program
M.B.A., New York University
B.A., Rosemont College
Office: CYC/B215, 972.985.3755
E-mail: jsheppard@ccccd.edu

Sinclair, Kim

Assistant Director, Accounting and Financial Reporting
M.A., University of North Texas
B.B.A., University of Central Oklahoma
Office: CYC/A429, 972.758.3832
E-mail: ksinclair@ccccd.edu

Smith, Mike

Director of Testing
B.A.A.S., University of North Texas
A.A., Collin County Community College District
Office: SCC/F135, 972.881.5739
E-mail: msmith@ccccd.edu

Spears, Ronald

Director, Law Enforcement Academy
B.S.O.E., Wayland Baptist University
A.A.S., Frank Phillips Junior College
Office: CPC/A357, 972.548.6861
E-mail: rspears@ccccd.edu

Swanson, Katherine

Director of Recruitment and Retention
M.Ed., Montana State University
B.S., Northern Michigan University
Office: SCC/B230, 972.881.5133
E-mail: kswanson@ccccd.edu

Tibbals, Alicia T.

Director, CPC Learning Resources Center
M.L.S., University of North Texas
M.A., University of Houston
B.A., Baylor University
Office: CPC/B112, 972.548.6866
E-mail: atibbals@ccccd.edu

Wormald, Anita

Program Director, Business and Industry Training
M.B.A., Amber University
B.B.A., Adelphi University
Office: CYC/A340, 972.985.3754
E-mail: awormald@ccccd.edu

Young, Jim

Counselor Coordinator
Small Business Development Center
B.A., Stanford University
Office: CPC/A114, 972.548.6724
E-mail: jyoung@ccccd.edu

INSTRUCTIONAL DEANS**Austin, Juanita**

Dean of Developmental Education
S.C.T., Murray State University
M.A., Murray State University
B.S., Lane College
Office: SCC/K106, 972.881.5721
E-mail: jaustin@ccccd.edu

Baltzer, John

Dean of Engineering Technology
M.S., University of North Texas
B.Ed., University of Western Ontario
B.A.A.S., University of North Texas
A.A.S., Fanshawe College
Office: PRC/H210, 972.377.1700
E-mail: jbaltzer@ccccd.edu

Crawford, Michael

Dean of Fine Arts
M.A., Eastern Washington University
B.A., Eastern Washington University
Office: SCC/F134, 972.881.5807
E-mail: mcrawford@ccccd.edu

Hodge, Gary

Dean of Social Sciences and Public Services
M.A., Texas Christian University
B.A., University of Texas at Arlington
A.A., Tarrant County Junior College
Office: SCC/B240, 972.881.5897
E-mail: ghodge@ccccd.edu

Kappus, Sheryl Smith

Dean of Mathematics and Natural Sciences
Ph.D., Texas Woman's University
M.S., Texas Woman's University
B.S., University of South Alabama
Office: SCC/K105, 972.881.5881
E-mail: skappus@ccccd.edu

Lilly, Vivian C.

Associate Dean of Health Sciences and
Director of Associate Degree Nursing
Ph.D., University of North Texas
M.B.A., University of Dallas
M.S., Texas Woman's University
B.S., Texas Woman's University
Office: CPC/E310, 972.548.6883
E-mail: vlilly@ccccd.edu

Palmer, Lillie M.

Dean of Business and Computer Science
Ed.D., East Texas State University
M.Ed., University of Houston
B.S., University of Houston
Office: PRC/H246, 972.377.1730
E-mail: lpalmer@ccccd.edu

Parcells, Rex A.

Dean of Health Sciences, Physical Education, and Child Development
M.S., Ithaca College
B.S., Cornell University
A.A., Auburn Community College
Office: CPC/E303, 972.548.6677
E-mail: rparcells@ccccd.edu

Smith, Mitchell E.

Dean of Humanities and International Studies
M.A., Yale University
M.A., Columbia University
B.A., University of Texas
Office: SCC/B189, 972.881.5811
E-mail: mesmith@ccccd.edu

BUSINESS AND COMPUTER SCIENCE FACULTY

Banta, Patricia

Professor, Real Estate
M.A., Southern Methodist University
B.S., Pennsylvania State University
Office: CYC/B323, 972.985.3707
E-mail: pbanta@cccdd.edu

Blitt, William J.

Professor, Computer Science
M.S., Air Force Institute of
Technology
B.S., US Air Force Academy
Office: SCC/J115, 972.881.5184
E-mail: bblitt@cccdd.edu

Chavez, Veronica

Professor, Economics
M.P.A., University of Texas at Dallas
B.S., University of Texas at Dallas
Office: SCC/B118, 972.516.5088
E-mail: vchavez@cccdd.edu

Cockerell, Gloria

Professor, Marketing
M.A., University of Texas at Dallas
M.A., University of North Texas
B.S., University of Texas
A.A., Kilgore College
Office: SCC/J247, 972.881.5736
E-mail: gcockerell@cccdd.edu

Cohick, Mike

Professor, Economics
Ph.D., University of North Texas
M.A., Webster University
M.S., University of Washington
B.S., Pennsylvania State University
B.S., University of Utah
Office: SCC/J104, 972.881.5840
E-mail: mcohick@cccdd.edu

Dawson, Peter

Professor, Business Administration
Ph.D., University of Texas at Dallas
J.D., University of Texas
M.B.A., University of Dallas
B.A., University of California at
Berkeley
Office: SCC/K227, 972.516.5031
E-mail: pdawson@cccdd.edu

Edwards, Jeff

Professor, Economics
M.S., University of Arkansas
B.S.B.A., University of Arkansas
Office: PRC/F237, 972.377.1704
E-mail: jedwards@cccdd.edu

Emerson, Mary

Professor, Computer Information
Systems
Ph.D., University of North Texas
M.A., University of North Texas
B.A., East Central State University
Office: PRC/H111, 972.377.1687
E-mail: memerson@cccdd.edu

Etchison, Judy

Professor, Computer Science
M.S., East Texas State University
B.A., Boston University
A.A., Bennett Junior College
Office: PRC/H113, 972.377.1688
E-mail: jetchison@cccdd.edu

Harlow, Teresa

Professor, Computer Information
Systems
M.Ed., Georgia State University
B.B.A., Georgia State University
Office: PRC/H233, 972.377.1605
E-mail: tharlow@cccdd.edu

Howry-Moore, Cindy K.

Professor, Computer Science
M.S., University of North Texas
B.S., University of North Texas
Office: SCC/J125, 972.881.5838
E-mail: chowry@cccdd.edu

Huey, Peter, CPA

Professor, Accounting
M.B.A., Central Oklahoma State
University
B.S., B.A., Southwestern Oklahoma
State University
Office: PRC/F238, 972.377.1703
E-mail: phuey@cccdd.edu

Hunt, Lee A.

Professor, Computer Information
Systems
M.A., University of Texas, Tyler
M.Div., Southwestern Baptist
Theological Seminary
B.A., Louisiana Polytechnic Institute
Office: SCC/J118, 972.881.5878
E-mail: lhunt@cccdd.edu

James, Washington

Professor, Computer Information
Systems
M.B.A., Golden Gate University
B.S., Park College
A.A., Northern Virginia Community
College
Office: SCC/J127, 972.881.5836
E-mail: wjames@cccdd.edu

Johnson, David

Professor, Computer Science
M.S., Oklahoma State University
B.A., Oklahoma City University
Office: CPC/A216, 972.548.6826
E-mail: djohnson@cccdd.edu

Kunz, Russell

Professor and Coordinator,
Management Development
Coordinator, Hospitality Management
M.S., Texas Tech University
B.B.A., Texas Tech University
Office: PRC/H230C, 972.377.1702
E-mail: rkunz@cccdd.edu

McRae, Tony

Professor, Computer Science
M.Ed., East Texas State University
B.S., Kansas Newman College
Office: SCC/J124, 972.881.5918
E-mail: tmcrae@cccdd.edu

Milford, Mary

Professor, Real Estate
J.D., Southern Methodist University
B.B.A., Southern Methodist University
Office: CYC/B325, 972.985.3709
E-mail: mmilford@cccdd.edu

Miller, Paula, CPA

Professor, Accounting
M.A.A., University of Iowa
B.S., Northeast Missouri State
B.S.Ed., Northeast Missouri State
Office: SCC/J219, 972.881.5179
E-mail: pmiller@cccdd.edu

Musa, Karen

Professor and Coordinator,
Hospitality Management
M.B.A., Dallas Baptist University
B.S., Johnson & Wales
A.S., Johnson & Wales
Office: PRC/F112, 972.377.1672
E-mail: kmusa@cccdd.edu

Ramsower, Diana

Professor and Coordinator,
Office Administration
M.Ed., North Texas State University
B.S., Stephen E. Austin State
University
Office: SCC/J117, 972.881.5835
E-mail: dramsower@cccdd.edu

Slater, William C.

Professor, Computer Science
M.S., University of Texas at Arlington
B.S., University of Texas at Arlington
Office: SCC/J126, 972.881.5976
E-mail: bslater@cccdd.edu

Stephens, Charles

Professor, Computer Science
M.S., Grangling State University
B.S., Southern University
Office: PRC/H233B, 972.377.1606
E-mail: cstephens@cccdd.edu

Thompson, Linda

Professor, Office Administration
Coordinator, Medical Transcription
M.S., East Texas State University
B.S.E., Southern State College
Office: CPC/A200, 972.548.6815
E-mail: lthompson@cccdd.edu

Tobaben, Mary Jane

Professor, Office Administration
M.Ed., University of North Texas
B.S., Colorado State College
Office: PRC/H118, 972.377.1701
E-mail: mtobaben@cccdd.edu

Wallace, Dean, CPA

Professor, Accounting
J.D., Southern Methodist University
M.B.A., University of North Texas
B.A., University of North Texas
Office: SCC/H207, 972.881.5706
E-mail: dwallace@cccdd.edu

DEVELOPMENTAL EDUCATION FACULTY

Bakner, Arlene

Instructional Associate,
Developmental Mathematics
M.A.T., University of Texas at Dallas
B.S., Towson State University
Office: SCC/J241, 972.881.5959
E-mail: abakner@ccccd.edu

Breedlove, Peggy

Professor, English as a Second
Language
M.A., University of North Texas
B.A., East Texas State University
Office: SCC/H222, 972.881.5703
E-mail: pbreedlove@ccccd.edu

Conry, Linda

Professor, Developmental Writing
M.A., Louisiana Tech University
B.A., Louisiana Tech University
Office: SCC/D115, 972.881.5915
E-mail: lconry@ccccd.edu

Crewe, Omri

Instructional Associate,
Developmental Mathematics
B.S., Virginia State University
Office: CPC/B336, 972.548.6896
E-mail: ocrewe@ccccd.edu

Erickson, Janet

Instructional Associate, English as a
Second Language
B.A., University of Texas at Dallas
Office: SCC/A210, 972.516.5029
E-mail: jerickson@ccccd.edu

Foster-Eason, Laura

Professor, Developmental Writing
M.A., Texas Tech University
B.A., Texas Tech University
Office: CPC/E214, 972.548.6895
E-mail: lfoster@ccccd.edu

Ghirmani, Soliana

Instructional Associate, Non-Course-
Based Remediation
M.A., University of Texas at Dallas
B.S., University of Texas
Office: CPC/B114, 972.548.6715
E-mail: sghirmani@ccccd.edu

Godwin, Judy

Professor, Developmental
Mathematics
M.A.T., University of Texas at Dallas
B.S., University of North Texas
Office: SCC/J240, 972.881.5954
E-mail: jgodwin@ccccd.edu

Hayden, Karen

Professor, Developmental Writing
M.A., University of Texas at Arlington
B.A., University of Texas at Arlington
Office: PRC/F130, 972.377.1533
E-mail: khayden@ccccd.edu

Joshua, John

Professor, Developmental
Mathematics
M.S., Texas A&I University
B.S., Calicut University
Office: PRC/F211, 972.377.1719
E-mail: jjoshua@ccccd.edu

Karr, Rosemary M.

Professor, Developmental
Mathematics
Ph.D., University of North Texas
M.A., Eastern Kentucky University
B.S., Eastern Kentucky University
Office: SCC/K218, 972.881.5865
E-mail: rkarr@ccccd.edu

Matlock, Judy

Professor, Developmental
Mathematics
M.S., East Texas State University
B.A., University of Texas
Office: SCC/J237, 972.881.5924
E-mail: jmatlock@ccccd.edu

McCoy, Sandy

Instructional Associate,
Developmental Mathematics
B.A., University of Oklahoma
Office: SCC/J241, 972.881.5959
E-mail: smccoy@ccccd.edu

McBride, Shirley A.

Professor, Developmental Writing and
English as a Second Language
M.A., Baylor University
B.A., Abilene Christian University
Office: SCC/J218, 972.881.5675
E-mail: smcbride@ccccd.edu

Miles-Rosenfield, Marti

Professor, Developmental Writing
M.A., University of New Orleans
B.A., Texas Tech University
Office: SCC/B120, 972.881.5183
E-mail: mrosenfield@ccccd.edu

Moss, Marilyn

Professor, Developmental
Mathematics
M.A.T., University of Texas at Dallas
B.S., University of North Texas
Office: CPC/B200B, 972.548.6674
E-mail: mmoss@ccccd.edu

Murray, Janice

Instructional Associate, Non-Course-
Based Remediation
M.A., University of Texas
B.A., University of Minnesota at
Morris
Office: SCC/LRC Room K,
972.881.5723
E-mail: jmurray@ccccd.edu

Phillips, Hazel

Professor, Developmental Writing
M.A., University of Chicago
B.A., Dillard University
Office: CPC/A200C, 972.548.6675
E-mail: hphillips@ccccd.edu

Rubino, Edelin

Professor, Developmental Reading
M.Ed., University of North Texas
B.S., Cornell University
Office: SCC/D114, 972.881.5956
E-mail: erubino@ccccd.edu

Sauter, Alan

Professor, Developmental Math
M.A., Mankato State University
B.A., University of Minnesota
Office: CPC/B325, 972.548.6733
E-mail: asauter@ccccd.edu

Terrell, Shirley

Professor, English as a Second
Language
M.S., University of North Texas
B.S., University of Texas at Dallas
Office: SCC/K219, 972.881.5676
E-mail: sterrell@ccccd.edu

Williamson, Jenny

Instructional Associate, Non-Course-
Based Remediation
M.A., Southern Methodist University
B.S., North Texas State University
Office: SCC/LRC Room K,
972.881.5723
E-mail: jwilliamson@ccccd.edu

ENGINEERING TECHNOLOGY FACULTY

Adams, Glenn

Professor and Coordinator,
Computer-Aided Drafting and
Design/Engineering
M.S., University of Texas at El Paso
B.S., Tarleton State University
Office: PRC/H114, 972.377.1689
E-mail: gadams@ccccd.edu

Brierley, Peter G.

Professor, Computer Networking
Technology/Telecommunications
Coordinator, Telecommunications
M.S., Southern Methodist University
Office: PRC/H230E, 972.377.1686
E-mail: pbrierley@ccccd.edu

Fant, Jeff

Professor, Computer Networking
Technology
Coordinator, CISCO Academy
B.S., Louisiana State University
Office: CPC/A229, 972.548.6548
E-mail: jfant@ccccd.edu

Hackney, Joe

Professor and Coordinator,
Electronics/Semiconductor
Manufacturing Technology
A.A.S., Collin County Community
College District
Office: PRC/H115, 972.377.1746
E-mail: jhackney@ccccd.edu

Jones, Thomas

Professor and Coordinator, Computer
Networking Technology
A.A.A., Cisco Junior College
Office: PRC/H219, 972.377.1714
E-mail: tjones@ccccd.edu

Marshall-Winslow, Susan
Professor, Interior Design/Computer-Aided Drafting and Design
B.S.E., University of Arkansas
Office: PRC/H217, 972.377.1716
E-mail: swinsolv@cccd.edu

Meeks, Robert
Professor, Electronics
Ph.D., Texas A&M University
M.S.E.E., Texas Tech University
B.S.E.E., Texas Tech University
Office: PRC/H219, 972.377.1713
E-mail: rmeeks@cccd.edu

Mobley, Thomas
Professor, Electronics and Telecommunications
M.S.E.E., Southern Methodist University
M.Div., Austin Presbyterian Theological Seminary
B.A., Southwestern University at Memphis
B.S.E.E., Southern Methodist University
Office: PRC/H230A, 972.377.1675
E-mail: tmobley@cccd.edu

Perrine, John
Professor, Telecommunications
M.S., University of Maryland
B.A., West Virginia University
Office: CPC/B307, 972.548.6703
E-Mail: jperrine@cccd.edu

Wilkins, John P.
Professor, Electronics
M.B.A., Oklahoma State University
B.S., Oklahoma State University
Office: CPC/B311E, 972.548.6876
E-mail: jwilkins@cccd.edu

Wright, Robert
Professor, Computer Networking Technology
M.A., University of Texas
B.M.Ed., Florida State University
Cert., DeVry Institute of Technology
Office: PRC/H110, 972.377.1787
E-mail: rwright@cccd.edu

Zegiorgis, Seyoum
Professor, Computer Networking Technology
Ph.D., Texas A&M University
M.S., University of North Texas
B.G.S., University of Texas at Dallas
Cert., Southern Methodist University
Office: PRC/H230A, 972.377.1676
E-mail: szegiorgis@cccd.edu

FINE ARTS FACULTY

Akins, Lee
Professor, Art
M.F.A., Southern Methodist University
B.F.A., College of the Dayton Art Institute
Office: SCC/A249, 972.881.5951
E-mail: lakins@cccd.edu

Allison, Brian
Professor, Music
D.M.A., University of North Texas
M.M., Indiana University
B.A., California State University
Office: SCC/B182, 972.881.5813
E-mail: ballison@cccd.edu

Baker, Brad
Director and Professor, Theatre
M.A., University of Maryland
B.A., North Kentucky University
B.F.A., North Kentucky University
Office: SCC/C155, 972.881.5679
E-mail: bbaker@cccd.edu

Ballweg, D. Brent
Professor and Director, Choral Activities
D.M.A., University of Missouri-Kansas City
M.M., Southwestern Baptist Theological Seminary
B.M., Oklahoma Baptist University
Office: SCC/B121, 972.881.5653
E-mail: bballweg@cccd.edu

Berg, Kris
Professor, Music/Jazz Studies
M.M., University of North Texas
B.M., University of North Texas
Office: SCC/C156, 972.881.5108
E-mail: kberg@cccd.edu

Bishop, Gary
Professor, Photography
Office: SCC/K119, 972.881.5159
E-mail: gbishop@cccd.edu

Cooksey, Gaye
Professor, Applied Graphic Design Technology
B.F.A., University of North Texas
Office: SCC/K119, 972.881.5968
E-mail: gcooksey@cccd.edu

Cotter-Smith, Cathy M.
Professor, Art
M.A., East Texas State University
B.S., East Texas State University
Office: SCC/A247, 972.881.5817
E-mail: ccotter@cccd.edu

Cronauer, Gail
Professor, Theatre
M.F.A., Case Western Reserve University
B.A., Antioch College
Office: SCC/C134, 972.881.5125
E-mail: gcronauer@cccd.edu

Elliott, Billie
Instructional Associate, Fine Arts and Director of Art Galleries
M.A., Stephen F. Austin
B.F.A., Stephen F. Austin
Office: SCC/A245, 972.881.5145
E-mail: belliot@cccd.edu

Hays, Keith
Professor, Music
M.M., Southern Methodist University
B.M., Henderson State University
Office: SCC/B183, 972.881.5973
E-mail: khays@cccd.edu

Morgan, Chris
Professor, Music
D.M.A., University of North Texas
M.A., University of North Texas
B.M., University of Texas at Arlington
Office: SCC/B229, 972.516.5010
E-mail: cmorgan@cccd.edu

Najjab, David
Professor, Applied Graphic Design Technology
M.F.A., Bard College
B.A., University of Texas at Dallas
Office: SCC/K118, 972.881.5647
E-mail: dnajjab@cccd.edu

Ottinger, Tom
Professor, Applied Graphic Design Technology
B.F.A., University of New Mexico
Office: SCC/K119, 972.516.5089
E-mail: tottinger@cccd.edu

Reece, J. Rex
Professor, Art
M.A., George Peabody College
B.S., Louisiana State University
Office: SCC/A246, 972.881.5804
E-mail: rreece@cccd.edu

Siber, Elizabeth
Professor, Art History
M.A., University of North Texas
B.F.A., University of North Texas
Office: SCC/A248, 972.881.5158
E-mail: bsiber@cccd.edu

Snyder, Sandy
Instructional Associate, Theatre
M.S., Miami University
B.S., Hanover University
Office: SCC/C142, 972.881.5738
E-mail: ssnyder@cccd.edu

Van Cleef, June
Professor, Photography
M.A., University of North Texas
B.A., Sul Ross State University
Office: SCC/H206, 972.881.5827
E-mail: jvancleef@cccd.edu

Williams, Byrd, IV
Professor, Photography
M.F.A., Southern Methodist University
Office: SCC/G214, 972.881.5727
E-mail: bwilliams@cccd.edu

HEALTH SCIENCES, PHYSICAL EDUCATION, AND CHILD DEVELOPMENT FACULTY

Adams, Linda

Professor, Physical Education
Coordinator, Wellness Program
M.S., Texas A&M University at
Commerce
B.A., St. Thomas Aquinas College
Office: SCC/A217, 972.881.5777
E-mail: ladams@ccccd.edu

Airhart, Tony

Professor, Physical Education
M.E.D., West Texas State University
B.S., West Texas State University
Office: SCC/B117, 972.881.5913
E-mail: tairhart@ccccd.edu

Allen, Jane E., R.N.

Professor, Nursing
M.S., Texas Woman's University
B.S., Texas Woman's University
A.D.N., Grayson County College
Office: CPC/A320, 972.548.6875
E-mail: jallen@ccccd.edu

Arnold, Tiffanee

Professor and Coordinator,
Dance Program
M.F.A., Texas Woman's University
B.S., Western Illinois University
Office: SCC/B106, 972.881.5830
E-mail: tarnold@ccccd.edu

Barbaro, Allen

Professor and Director,
Respiratory Care
M.S., Pittsburg State University
B.S., University of Pittsburgh
A.S., Comm College of Allegheny
County
Office: CPC/E308, 972.548.6870
E-mail: abarbaro@ccccd.edu

Berryman, Martin Q.

Professor, Physical Education
Tennis Coach
M.S., East Texas State University
B.S., East Texas State University
Office: SCC/A217, 972.881.5884
E-mail: mberryman@ccccd.edu

Boski, Elaine

Professor and Coordinator, Child
Development
M.Ed., Texas Woman's University
B.S., Bradley University
Office: SCC/B173, 972.881.5967
E-mail: eboski@ccccd.edu

Brown, Jacquelyn, R.N.

Professor, Nursing
M.S.N., University of North Carolina
B.S.N., Winston Salem State University
Office: CPC/A321, 972.548.6885
E-mail: jbrown@ccccd.edu

Chandler, Betsy

Professor and Coordinator,
Clinical Education
M.S., Texas Woman's University
B.S., University of Texas Health
Science Center, San Antonio
Office: CPC/E209, 972.548.6732
E-mail: bchandler@ccccd.edu

Dennis, Greg

Professor, Physical Education
Baseball Coach
M.S., Baylor University
B.S., Baylor University
Office: SCC/A220, 972.881.5927
E-mail: gdennis@ccccd.edu

Devitt, Barbara, R.N.

Professor, Nursing
M.S.N., University of Nebraska-
B.S.N., University of Nebraska-
Office: CPC/A315, 972.548.6884
E-mail: bdevitt@ccccd.edu

DeWees, Steve

Professor, Respiratory Care and
Director, Clinical Education
A.A.S., Odessa College
Office: CPC/B200D, 972.548.6719
E-mail: sdeweess@ccccd.edu

Evans, Susan

Professor and Coordinator, Physical
Education and Dance
M.A., Texas Woman's University
B.S., East Stroudsburg State
University
Office: SCC/A211, 972.881.5150
E-mail: sevans@ccccd.edu

Fletcher, Joanne

Director, Dental Hygiene
M.S., University of Bridgeport
B.S., University of Bridgeport
A.A., University of Bridgeport
Office: CPC/A120, 972.548.6738
E-mail: jfletcher@ccccd.edu

Goodwin, Linda

Professor, Cycling
B.S., University of Wisconsin
Office: PRC/A105, 972.377.1765
E-mail: lgoodwin@ccccd.edu

Grafa, Colleen

Director, Physical Therapist Assistant
Program
M.S., Texas Tech University
B.S., University of Texas Health
Sciences Center
Office: CPC/E307, 972.548.6854
E-mail: cgrafa@ccccd.edu

Green, Cynthia

Professor, Dental Hygiene
M.S.H.P., Southwest Texas State
University
B.S., Baylor College of Dentistry
Office: CPC/B324, 972.548.6547
E-mail: cgreen@ccccd.edu

Leverette, Craig

Professor, Physical Education
Softball Coach
M.S., Texas A&M University at
Commerce
B.S., University of Houston
Office: PRC/A107, 972.377.1756
E-mail: cleverette@ccccd.edu

Levesque, Danielle

Professor and Coordinator,
Dental Hygiene
M.S., University of Michigan
B.S., University of Michigan
Office: CPC/E212, 972.548.6544
E-mail: dlevesque@ccccd.edu

Pesta, Lynda, R.N.

Professor, Nursing
M.S., Texas Woman's University
B.S.N., University of Texas
at Arlington
Office: CPC/B312, 972.548.6835
E-mail: lpesta@ccccd.edu

Putnam, Kelly

Professor, Aquatics
M.S., Texas Woman's University
B.A., University of Texas at Dallas
Office: PRC/A167, 972.377.1753
E-mail: kputnam@ccccd.edu

Reynolds, Kelley

Professor, Respiratory Care
A.A.S., Collin County Community
College District
Office: CPC/A324, 972.548.6819
E-mail: kreynolds@ccccd.edu

Sauls, Donna, R.N.

Professor, Nursing
M.S., Texas Woman's University
M.S., University of North Texas
B.S.N., West Virginia Wesleyan
College
Office: CPC/B313, 972.548.6892
E-mail: dsauls@ccccd.edu

Schumann, Sherry

Professor, Physical Education
Coordinator, Fitness Center
M.Ed., Florida State University
B.S., Florida State University
Office: CPC/E121, 972.548.6887
E-mail: sschumann@ccccd.edu

Sherard, Robert

Professor, Emergency Medical
Services
B.A., University of Texas at Dallas
A.A., Richland College
Office: CPC/E309, 972.548.6848
E-mail: bsherard@ccccd.edu

Sigona, James A.

Professor, Physical Education
Men's Basketball Coach
M.S., East Texas State University
B.A., Potsdam State University
A.A.S., Cayuga Community College
Office: SCC/A104, 972.881.5845
E-mail: jsigona@ccccd.edu

Washington, Kim J.

Professor, Nursing
M.S.N., Northwestern State University
B.S.N., Northeast Louisiana University
Office: CPC/A308, 972.548.6818
E-mail: kwashington@ccccd.edu

Whitson, Jill

Professor, Physical Education
and Dance
M.F.A., Texas Woman's University
B.A., California State University
Office: SCC/A218, 972.881.5925
E-mail: jwhitson@ccccd.edu

HUMANITIES AND INTERNATIONAL STUDIES FACULTY

Andrade, Mary Anne

Professor, English
Ph.D., University of London
M.A., Southern Methodist University
B.A., Southern Methodist University
Office: SCC/B106, 972.881.5823
E-mail: mandrade@ccccd.edu

Beverage, Barbara

Professor, English
M.A., Wright State University
B.A., University of Alabama
Office: PRC/F113, 972.377.1578
E-mail: bbeverage@ccccd.edu

Boyd, Rodney

Professor, Humanities
M.F.A., California State University
of LA
M.A., California State University of LA
B.F.A., North Texas State University
Office: PRC/F242, 972.377.1537
E-mail: rboyd@ccccd.edu

Brown, Peggy

Professor, English and Humanities
Ph.D., University of Texas at Dallas
M.A., University of Texas at Dallas
B.A., University of Texas at Dallas
A.A., Richland College
Office: SCC/H235, 972.881.5808
E-mail: pbrown@ccccd.edu

Cobb, Sherill

Professor, English
M.A., Texas Woman's University
B.A., Texas Woman's University
Office: SCC/B193, 972.881.5812
E-mail: scobb@ccccd.edu

Cohen-Gilbert, Helene

Instructional Associate and
Coordinator, SGNL/IPPD Programs
AGS, Pima Community College
CSC, Registry of Interpreters for the
Deaf, TCDHH/BEI, Level V
Office: SCC/G237, 972.881.5152
E-mail: hgilbert@ccccd.edu

Goussak, Frozina

Professor, Spanish
M.A., State University of Kiev, Ukraine
Office: SCC/K240, 972.881.5141
E-mail: fgoussak@ccccd.edu

Grooms, Chris

Professor, English
Ph.D., University College of Wales
M.A., Stephen F. Austin State
University
B.S., Stephen F. Austin State
University
Office: SCC/H210, 972.881.5952
E-mail: cgrooms@ccccd.edu

Hasler, Carl R.

Professor, Philosophy
Ph.D., University of Missouri,
Columbia
M.A., University of Missouri,
Columbia
B.A., University of Texas, Arlington
Office: SCC/D116, 972.881.5753
E-mail: chasler@ccccd.edu

Henson, George B.

Professor, Spanish
M.A., Middlebury College, Vermont
B.A., University of Oklahoma
Office: SCC/H113, 972.881.5171
E-mail: ghenson@ccccd.edu

Howard, Tony J.

Professor, English and Philosophy
M.L.A., Southern Methodist University
M.A., Southern Methodist University
B.A., University of Dallas
Office: PRC/U110, 972.377.1649
E-mail: thoward@ccccd.edu

Kennedy, Joan

Professor, English
Ph.D., University of Texas at Dallas
M.A., University of Texas at Dallas
B.A., University of Mary Hardin-
Baylor
A.A., Temple Junior College
Office: SCC/H212, 972.881.5980
E-mail: jkennedy@ccccd.edu

Lane, Shelley D.

Professor, Speech Communications
Ph.D., University of Southern
California
M.A., University of Southern
California
B.A., University of California at Los
Angeles
Office: SCC/B108, 972.881.5821
E-mail: slane@ccccd.edu

Lingo, Kathy

Professor, Speech Communications
M.A.T., University of Texas at Dallas
B.S.E., University of North Texas
Office: SCC/J106, 972.881.5906
E-mail: klingo@ccccd.edu

Long, Ralph

Professor, Speech Communications
M.S., University of North Texas
B.F.A., University of North Texas
A.A., Mountain View College
Office: SCC/H215, 972.881.5982
E-mail: rlong@ccccd.edu

Matijevich, Elke

Professor, German
Ph.D., University of Texas at Dallas
M.A., University of Texas at Dallas
B.A., University of Texas at Dallas
Office: SCC/K229, 972.881.5970
E-mail: ematijevich@ccccd.edu

McFerrin, Teddie R.

Professor, English
M.A., Purdue University
B.A., Texas A&M University at
Commerce
Office: SCC/B109, 972.881.5916
E-mail: tmcFerrin@ccccd.edu

Miller, Joyce Marie

Professor, English
M.A., University of Texas at Dallas
B.A., University of Texas at Dallas
Office: SCC/J243, 972.881.5981
E-mail: jmiller@ccccd.edu

Mizell, Kay

Professor, English
Ed.D., Texas A&M University at
Commerce
M.A., Hardin-Simmons University
B.A., Oklahoma Baptist University
Office: SCC/H252, 972.881.5803
E-mail: kmizell@ccccd.edu

Moula, Kemal

Professor, French
M.B.A., University of North Texas
M.A., University of North Texas
B.A., University of Algiers
Office: SCC/G217, 972.881.5678
E-mail: kmoula@ccccd.edu

O'Neal, Gordon

Professor, English
M.A., Georgia Southern College
B.A., Georgia College
A.A., Macon College
Office: CPC/B329, 972.548.6841
E-mail: goneal@ccccd.edu

Perkus, Gerald H.

Professor, English
Ph.D., University of Rochester
M.A., University of Rochester
B.A., Brooklyn College
Office: SCC/G216, 972.881.5180
E-mail: gperkus@ccccd.edu

Perry, Carolyn E.

Professor, Humanities
M.A., Eastern Illinois University
B.A., Eastern Illinois University
Office: SCC/K241, 972.881.5140
E-mail: cperry@ccccd.edu

Sage, Diana

Professor, Speech
M.A., University of North Texas
M.A., Stephen F. Austin
B.S., Stephen F. Austin
Office: PRC/F236, 972.377.1748
E-mail: dsage@ccccd.edu

Stevens, Joanne

Professor, Humanities
 Ph.D., University of Texas at Dallas
 M.A., Angelo State University
 B.A., Texas Tech University
 Office: CPC/B334, 972.548.6751
 E-mail: jstevens@ccccd.edu

Tarafdar, Meg

Professor, English
 Ph.D., University of Oklahoma
 M.A., University of Oklahoma
 M.A., University of Delhi, India
 B.A., University of Delhi, India
 Office: PRC/F212, 972.377.1512
 E-mail: mtarafdar@ccccd.edu

Tilden-Charleson, Susan

Professor, Speech Communications
 M.S., University of North Texas
 B.S., Baylor University
 Office: SCC/G225, 972.881.5182
 E-mail: stilden@ccccd.edu

Tolleson, Martha

Professor, English
 M.A., Texas A&M University at
 Commerce
 B.S., Texas A&M University at
 Commerce
 Office: CPC/B200A, 972.548.6843
 E-mail: mtolleson@ccccd.edu

Whalen, Henry L.

Professor, Sign Language and IPPD
 B.S., Gallaudet University
 Office: SCC/D240, 972.881.5948
 E-mail: hwhalen@ccccd.edu

Yarbrough, R. Scott

Professor, English
 M.A., Angelo State University
 B.A., Angelo State University
 Office: CPC/B324, 972.548.6551
 E-mail: syarbrough@ccccd.edu

Young, Estelita

Professor, Spanish
 M.S., Youngstown State University,
 Ohio
 B.A., Youngstown State University,
 Ohio
 Office: SCC/G215, 972.881.5724
 E-mail: eyoung@ccccd.edu

**MATHEMATICS
AND NATURAL
SCIENCES FACULTY****Ardis, William**

Professor, Mathematics
 M.S., University of Texas at Dallas
 B.S., University of Texas at Dallas
 Office: PRC/F216, 972.377.1584
 E-mail: bardis@ccccd.edu

Beck, Jeff

Instructional Associate, Biology
 B.S., Dallas Baptist University
 Office: SCC/H111, 972.881.5894
 E-mail: jbeck@ccccd.edu

Bell, C. Michael

Professor, Biology
 M.S., Memphis State University
 B.A., Hendrix College
 Office: PRC/F217, 972.377.1583
 E-mail: mbell@ccccd.edu

Boliver, Doug

Instructional Associate, Biology
 B.S., Gannon University
 Office: SCC/J224, 972.881.5946
 E-mail: dboliver@ccccd.edu

Brown, Denise M.

Professor, Mathematics
 M.S., University of North Texas
 B.S., University of Texas at Dallas
 Office: SCC/B134, 972.881.5886
 E-mail: dbrown@ccccd.edu

Broyles, Michael

Professor, Physics
 M.S., University of Hawaii
 M.S.T., University of Wisconsin
 B.A., San Francisco State University
 Office: SCC/J139, 972.881.5882
 E-mail: mbroyles@ccccd.edu

Cardenas, Deborah

Professor, Biology
 M.Ed., Texas Tech University
 M.S.S.E., Texas Woman's University
 B.S., Texas Woman's University
 Office: SCC/K217, 972.881.5176
 E-mail: dcardenas@ccccd.edu

Donald-Whitney, Cathy

Professor, Biology
 M.S.S.E., Texas Woman's University
 B.S., Panhandle State University
 Office: CPC/E213, 972.548.6717
 E-mail: cwhitney@ccccd.edu

Dunkle, Sidney

Professor, Biology
 Ph.D., University of Florida
 M.S., University of Wyoming
 B.S., Baldwin Wallace College
 Office: SCC/J216, 972.881.5989
 E-mail: sdunkle@ccccd.edu

El-Ashmawy, Amina

Professor, Chemistry
 M.S., Texas A&M University
 B.A., Texas A&M University
 A.S., Kilgore College
 Office: SCC/K226, 972.881.5961
 E-mail: ael-ashmawy@ccccd.edu

Forester, Robert

Professor, Geology
 Ph.D., California Institute of Tech
 M.S., California Institute of Tech
 B.S., California Institute of Tech
 Office: SCC/B228, 972.881.5712
 E-mail: rforester@ccccd.edu

Galloway, James G.

Professor, Mathematics
 M.S., Southern Methodist University
 M.S., Stephen F. Austin
 B.S., Stephen F. Austin
 Office: SCC/K228, 972.881.5937
 E-mail: jgalloway@ccccd.edu

Geller, Nick

Professor, Mathematics
 M.S., Stephen F. Austin State
 University
 B.S., Stephen F. Austin State
 University
 Office: PRC/U157, 972.377.1764
 E-mail: ngeller@ccccd.edu

Hanks, Hershell

Instructional Associate, Biology
 M.S., University of Texas at Dallas
 B.S., Southwestern Oklahoma State
 Office: SCC/H111, 972.881.5894
 E-mail: hhanks@ccccd.edu

Helgeson, Jean

Professor, Biology
 M.A., Southwestern Graduate School,
 University of Texas Health Science
 Center at Dallas
 B.S., University of Oklahoma
 Office: SCC/J138, 972.881.5885
 E-mail: jhelgeson@ccccd.edu

Johnson, Charles

Professor, Mathematics
 Ph.D., University of North Texas
 M.S., Northwestern State University
 B.S., Northwestern State University
 Office: SCC/K220, 972.881.5722
 E-mail: cjohnson@ccccd.edu

Jury, Frederick

Professor, Chemistry
 Ph.D., Duquesne University
 M.S., Duquesne University
 B.S., Slippery Rock State College
 Office: SCC/J238, 972.881.5883
 E-mail: fjury@ccccd.edu

Keeton, Dennis

Instructional Associate, Mathematics
 M.S., University of Texas at Dallas
 B.S., University of Texas at Dallas
 A.S., Mountain View College
 Office: SCC/K245, 972.881.5759
 E-mail: dkeeton@ccccd.edu

Khoury, Raja

Professor, Mathematics
 Ph.D., University of Houston
 M.S., North Dakota State University
 B.S., North Dakota State University
 Office: SCC/J217, 972.881.5909
 E-mail: rhoury@ccccd.edu

Malek, Sirous

Professor, Mathematics
 Ph.D., Florida Institute of Technology
 M.S., Florida Institute of Technology
 M.S., Florida Institute of Technology
 Office: SCC/J226, 972.881.5181
 E-mail: smalek@ccccd.edu

McCulloch, David

Professor, Biology
 Ph.D., Texas A&M University
 M.S., Stephen F. Austin State
 University
 B.S., Stephen F. Austin State
 University
 Office: SCC/J225, 972.881.5991
 E-mail: dmcculloch@ccccd.edu

Rich, Nelson

Professor, Biology
 Ph.D., Oklahoma State University
 M.S., Northeast Louisiana University
 B.S., Southeastern Oklahoma
 State University
 Office: SCC/J223, 972.881.5874
 E-mail: nrich@cccdd.edu

Starnes, J. Kevin

Director, Horticulture
 B.S.Ed., Texas Tech University
 B.S., Texas Tech University
 Office: SCC/J220, 972.881.5908
 E-mail: kstarnes@cccdd.edu

Weis, Mary

Professor, Biology
 D.V.M., Texas A&M University
 B.S., Texas A&M University
 Office: SCC/K244, 972.881.5725
 E-mail: mweis@cccdd.edu

SOCIAL SCIENCES AND PUBLIC SERVICES FACULTY

Adler, William

Professor, Psychology
 Ph.D., University of North Texas
 M.A., Southern Methodist University
 B.A., Temple University
 Office: SCC/K230, 972.881.5960
 E-mail: badler@cccdd.edu

Benavides, Robert

Professor, Psychology and Staff
 Development
 M.A., University of North Texas
 B.S., University of North Texas
 Office: CYC/B327, 972.985.3813
 E-mail: rbenavides@cccdd.edu

Caiazzo, Thomas

Professor, Government
 Ph.D., Clark Atlanta University
 M.A., University of Central Florida
 B.A., University of Central Florida
 A.A., Miami-Dade Community College
 Office: SCC/B230, 972.516.5019
 E-mail: tcaiazzo@cccdd.edu

Collins, Larry

Professor, History
 M.A., University of North Texas
 B.A., University of North Texas
 Office: CPC/A353, 972.548.6820
 E-mail: lcollins@cccdd.edu

Cordell, Donnie

Instructional Associate, Fire Science
 A.A.S., Collin County Community
 College District
 Office: CPC/A206, 972.548.6836
 E-mail: dcordell@cccdd.edu

Coulter, Matthew Ware

Professor, History
 Ph.D., University of North Texas
 M.A., Southern Illinois University
 B.S., Southern Illinois University
 Office: SCC/B116, 972.881.5816
 E-mail: mcoulter@cccdd.edu

Creech, John

Professor, Psychology
 M.A., Ball State University
 B.S., Ball State University
 Office: PRC/F239, 972.377.1559
 E-mail: jcreech@cccdd.edu

Cullen, David

Professor, History
 Ph.D., University of North Texas
 M.A., University of North Texas
 B.A., University of North Texas
 Office: SCC/J244, 972.881.5965
 E-mail: dcullen@cccdd.edu

Gaiter, Pamela

Professor, Sociology
 M.A., Texas Woman's University
 B.S., East Texas State University
 Office: CPC/A200C, 972.548.6705
 E-mail: pgaiter@cccdd.edu

Garrison, David

Professor, Government
 Ph.D., University of North Texas
 M.A., University of Arkansas,
 Fayetteville
 B.A., Hendrix College
 Office: SCC/G224, 972.881.5815
 E-mail: dgarrison@cccdd.edu

Gunderson, Wendy

Professor, History
 M.A., Midwestern State University
 B.S., University of South Dakota
 Office: PRC/F114, 972.377.1536
 E-mail: wgunderson@cccdd.edu

Jenkins, Joan

Professor, History
 Ph.D., University of North Texas
 M.A., University of North Texas
 B.A., University of Texas
 Office: SCC/K243, 972.881.5829
 E-mail: jjenkins@cccdd.edu

Jones, U. Lynn

Professor, Government
 Ph.D., University of Missouri,
 Columbia
 M.S., University of North Texas
 B.A., University of North Texas
 Office: SCC/J107, 972.881.5841
 E-mail: ljones@cccdd.edu

Keith, Linda

Professor, Government
 M.A., University of North Texas
 B.A., University of Texas at Dallas
 Office: SCC/B119, 972.881.5984
 E-mail: lkeith@cccdd.edu

Lewis, Ted

Professor, Government
 M.S., University of North Texas
 B.A., Texas Wesleyan University
 Office: PRC/F213, 972.377.1535
 E-mail: tlewis@cccdd.edu

Lipscomb, Dan

Professor, Psychology
 M.S., Pittsburg State University
 B.S., Southwestern University
 Office: SCC/G229, 972.881.5715
 E-mail: dlipscomb@cccdd.edu

Lusk, Barbara

Professor, Psychology
 M.A., University of Alabama
 B.S., University of Alabama
 Office: CPC/B200C, 972.548.6809
 E-mail: blusk@cccdd.edu

MacKinnon, Jeff

Professor, Anthropology and History
 Ph.D., University of Wisconsin
 M.S., University of Wisconsin
 M.A., University of Wisconsin
 B.A., University of Michigan
 Office: SCC/H219, 972.881.5112
 E-mail: jmackinnon@cccdd.edu

Miller, Lawrence W.

Professor, Government
 Ph.D., Texas Tech University
 M.A., Eastern New Mexico University
 B.S., Eastern New Mexico University
 Office: SCC/H216, 972.881.5895
 E-mail: lmiller@cccdd.edu

Stern, Lawrence

Professor, Sociology
 M.A., Columbia University
 B.A., Brooklyn College
 Office: SCC/J246, 972.881.5608
 E-mail: lstern@cccdd.edu

Tullock, Sam

Professor, History
 Ph.D., University of Texas at Dallas
 M.Div., Southwestern Seminary
 B.A., Dallas Baptist University
 Office: SCC/G222, 972.881.5737
 E-mail: stullock@cccdd.edu

White, Deborah

Professor, Sociology/Psychology
 M.A., Texas Woman's University
 B.S., University of Tulsa
 Office: SCC/H221, 972.881.5163
 E-mail: dwhite@cccdd.edu

Wilkison, Kyle

Professor, History
 Ph.D., Vanderbilt University
 M.A., East Texas State University
 B.A., East Texas State University
 Office: SCC/G223, 972.881.5834
 E-mail: kwilkison@cccdd.edu